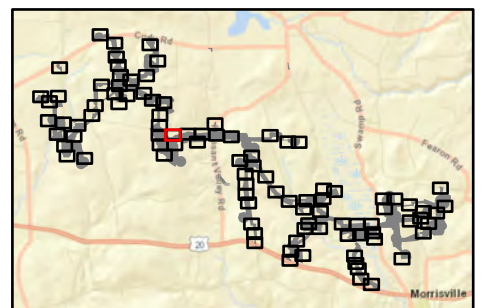
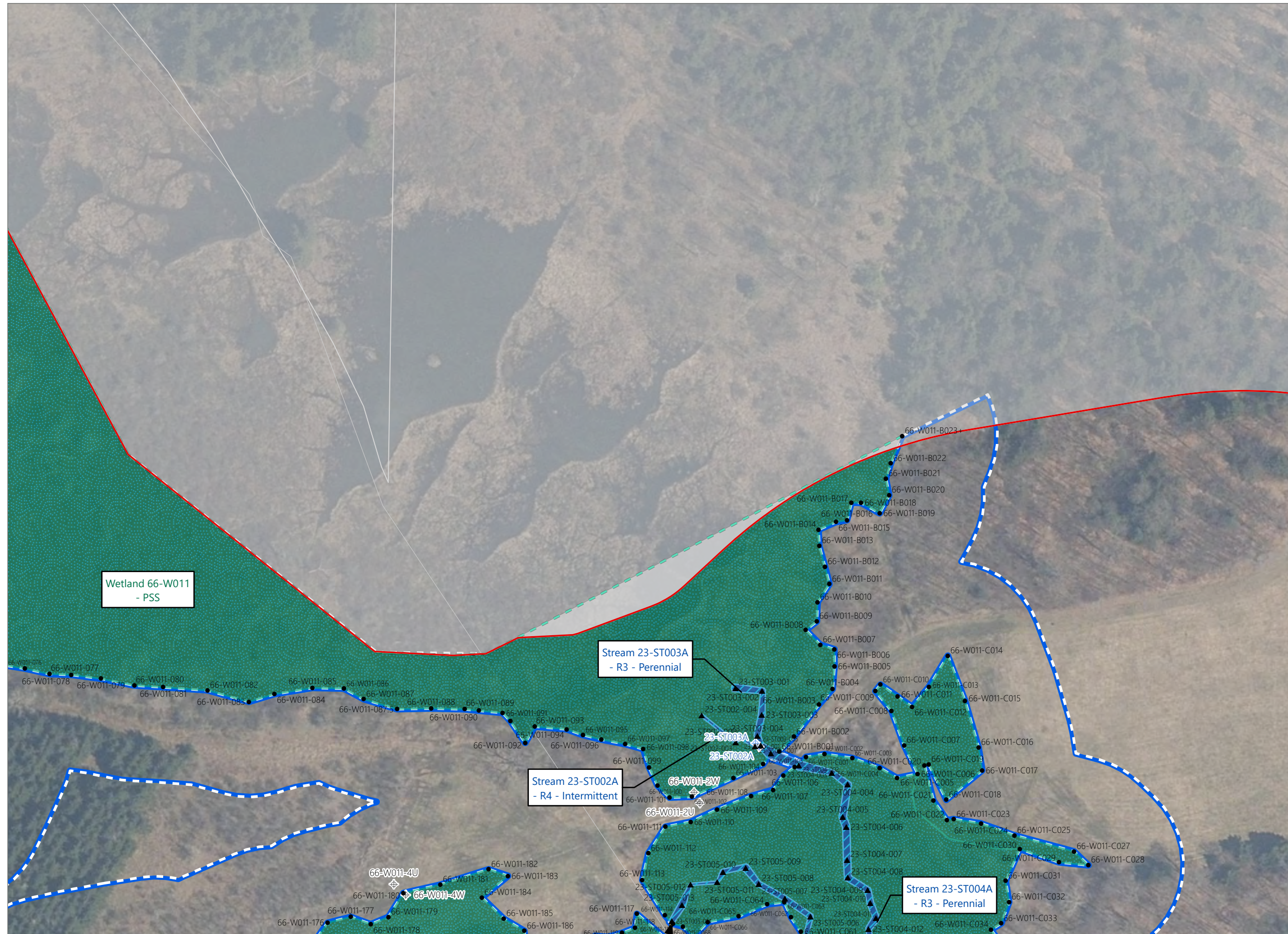


# Hoffman Falls Wind Project

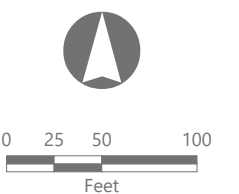
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- ▬ Culvert
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- ▨ Delineated Stream w/ State & Federal Jurisdictional
- ▤ Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- ▭ Study Area
- Parcel Boundary



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Basemap: NYSDOP "2022" orthoimagery map service



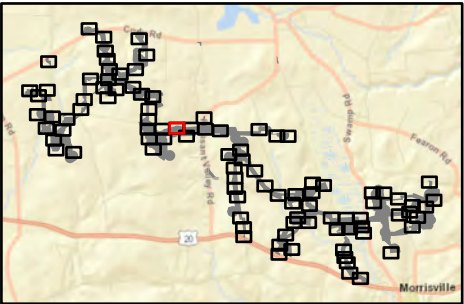
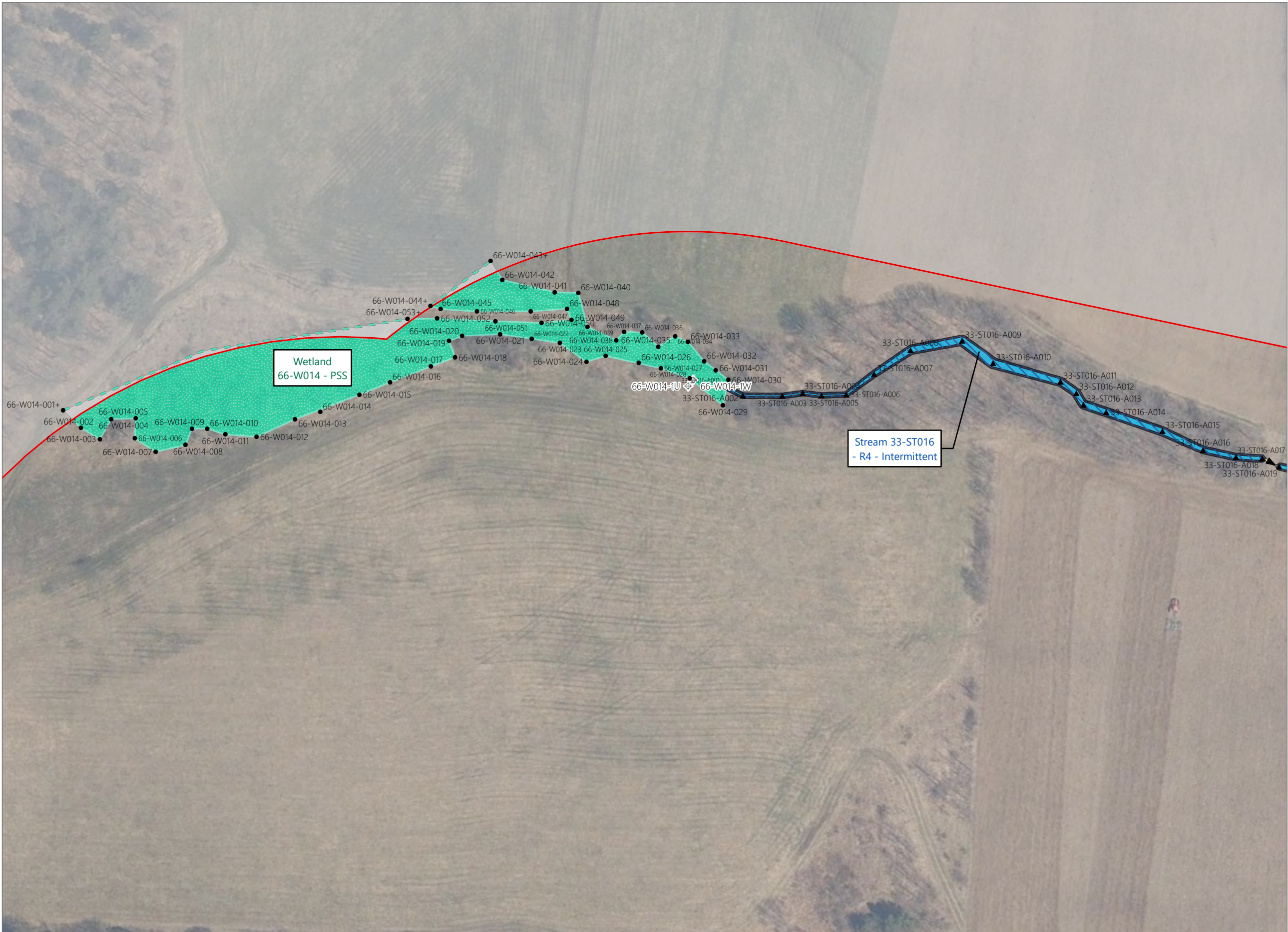
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

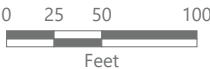
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Wetland
- Culvert
- Wetland Continues
- ▨ Delineated Stream w/ Federal Jurisdictional
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

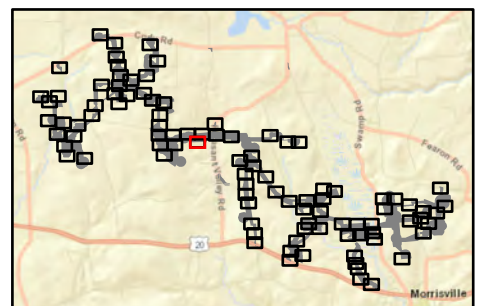


# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- ==> Culvert
- Wetland Continues
- ▨ Delineated Wetland Non-Jurisdictional
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▨ Study Area
- ▨ Parcel Boundary



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A number line is shown with tick marks at 0, 25, 50, and 100. The word "Feet" is written below the line. A shaded region is shown between 25 and 50.

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Basemap: NYSDOP "2022" orthoimagery map service



# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

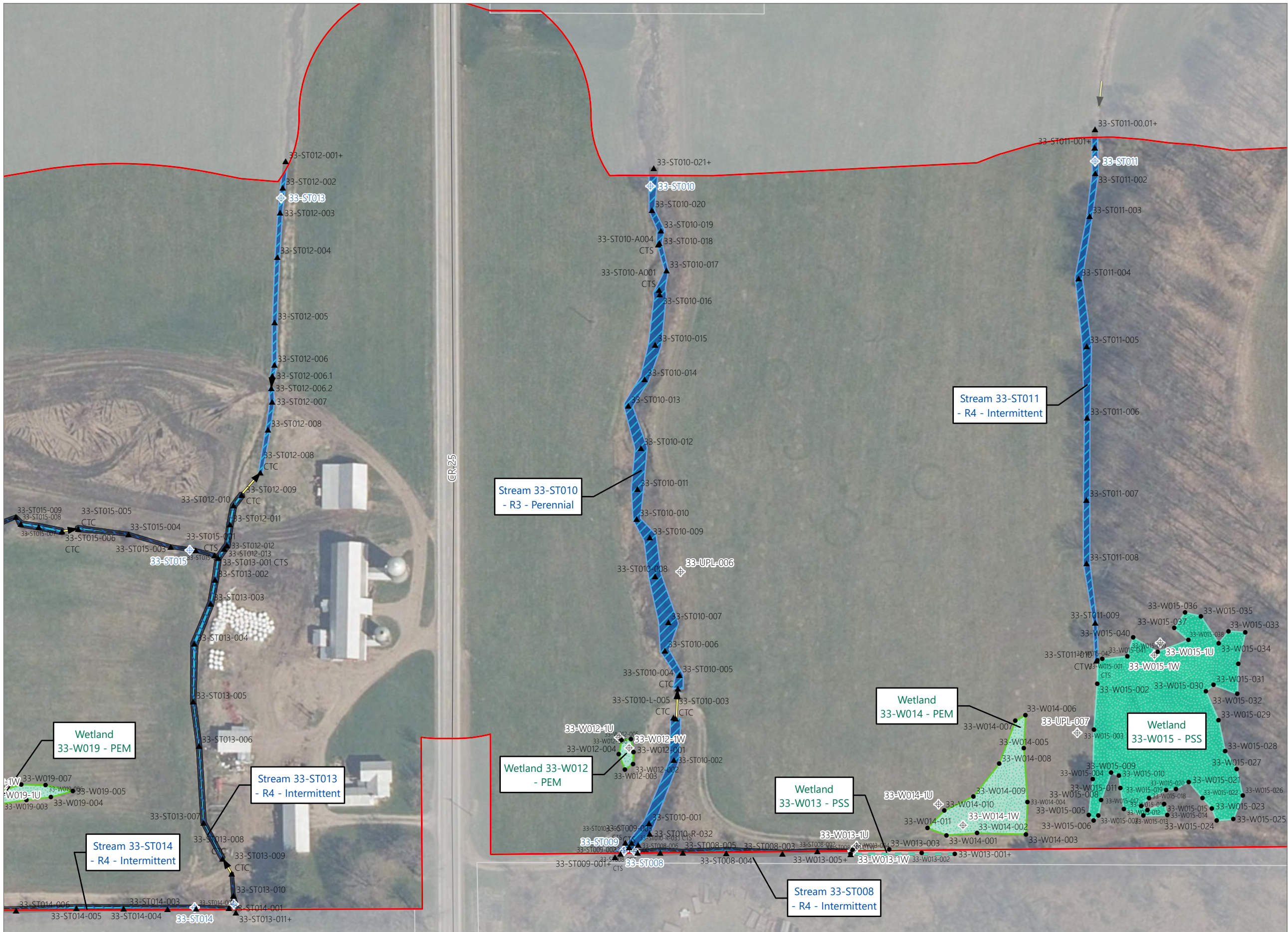
## Wetland and Stream Delineation Report



Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

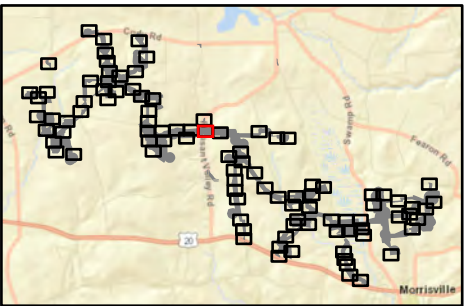


**Hoffman Falls Wind Project**

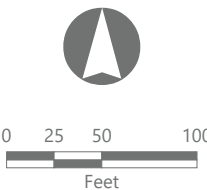
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- ▬ Culvert
- ▬ Wetland Continues
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream w/ State & Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland Non-Jurisdictional
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Hoffman Falls Wind Project

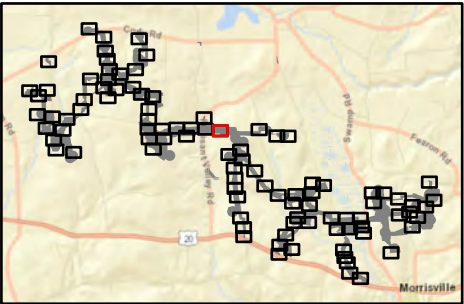
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

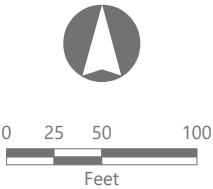
- Wetland Flag
- ⊕ Datapoint Wetland
- ▨ Delineated Wetland Non-Jurisdictional
- ▭ Study Area
- ▭ Parcel Boundary

Wetland 66-W009  
- PSS

- 66-W009-004
- 66-W009-005
- 66-W009-003
- 66-W009-006
- 66-W009-1W
- 66-W009-007
- 66-W009-002
- 66-W009-001
- 66-W009-1U



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Basemap: NYSDOP "2022" orthoimagery map service



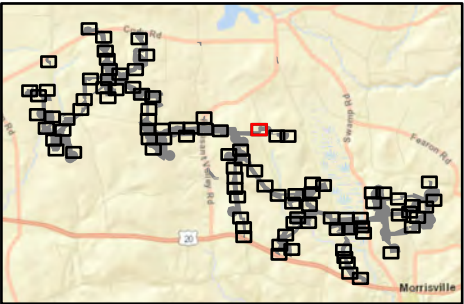
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

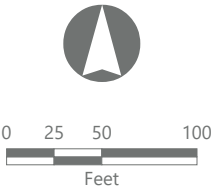
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- ➡ Culvert
- Wetland Continues
- ▬ Delineated Stream Non-Jurisdictional
- ▬ Delineated Wetland Non-Jurisdictional
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Basemap: NYSDOP "2022" orthoimagery map service





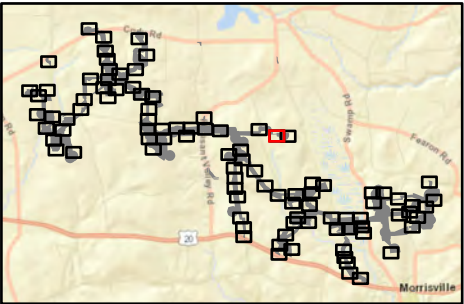
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

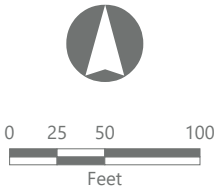
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Wetland Continues
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



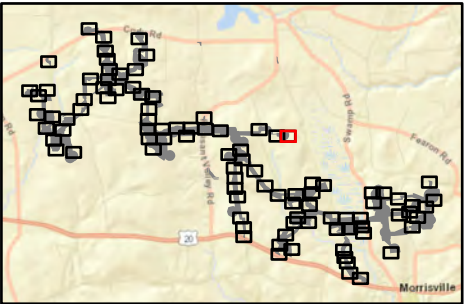
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

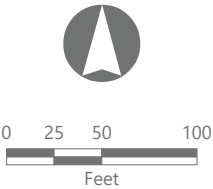
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- Wetland Continues
- ▬ Delineated Stream Non-Jurisdictional
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

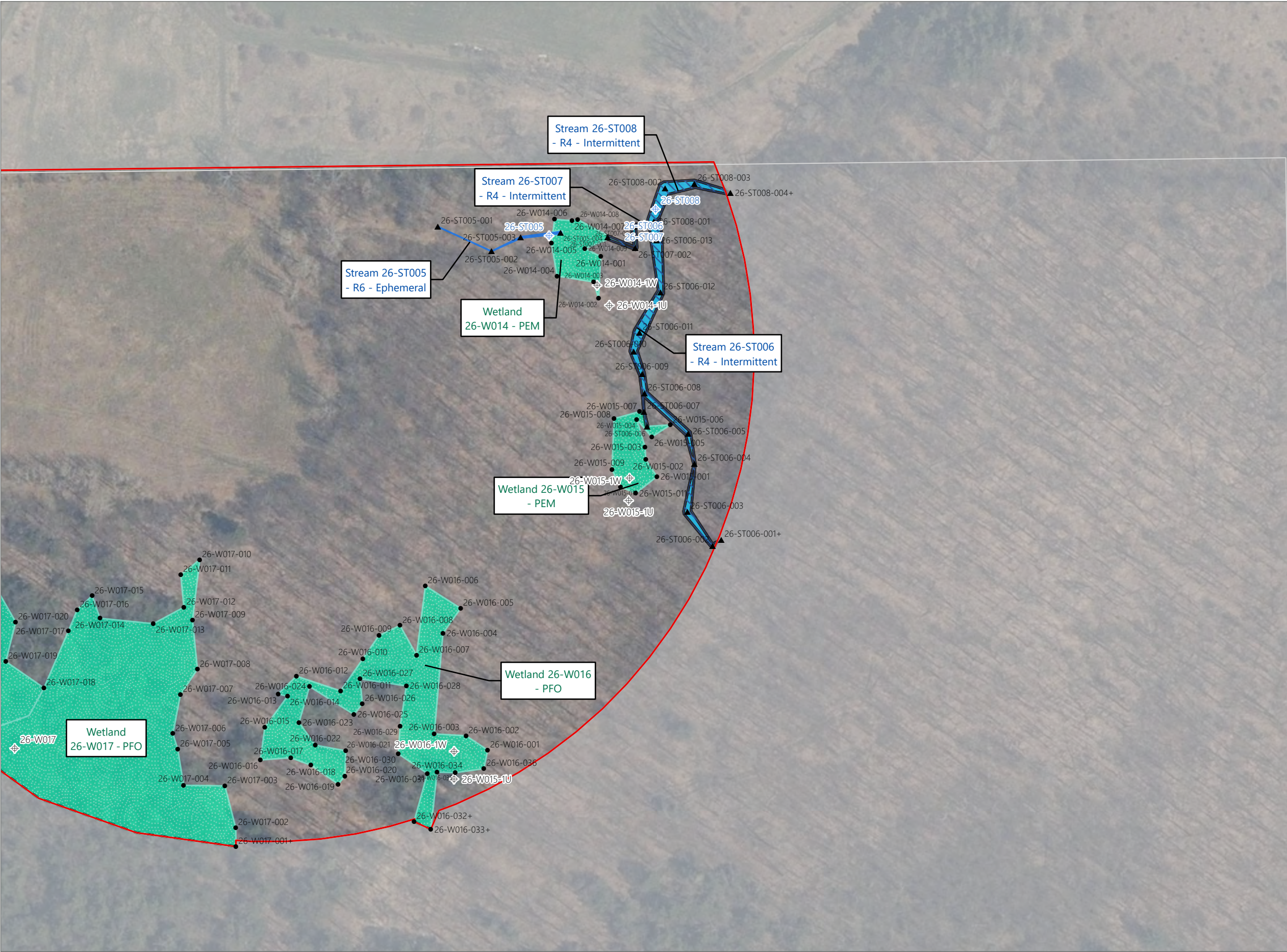




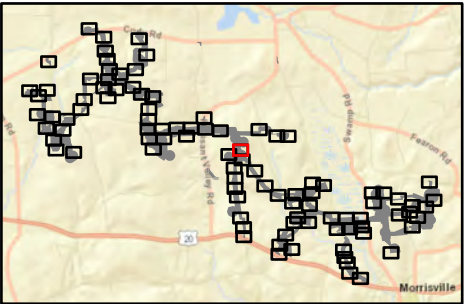
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

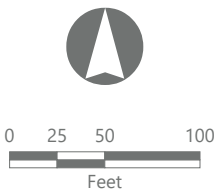
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Wetland Continues
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

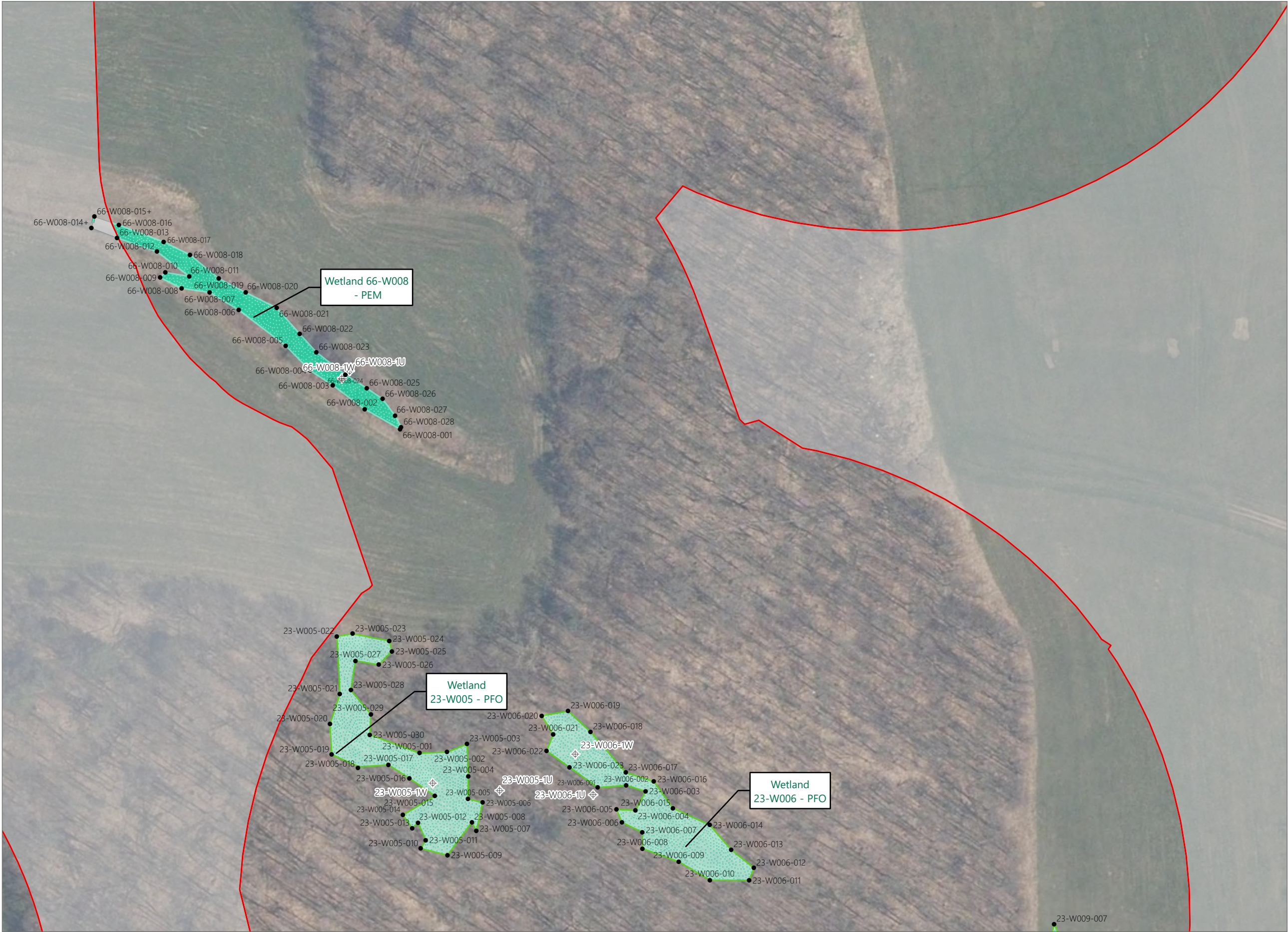
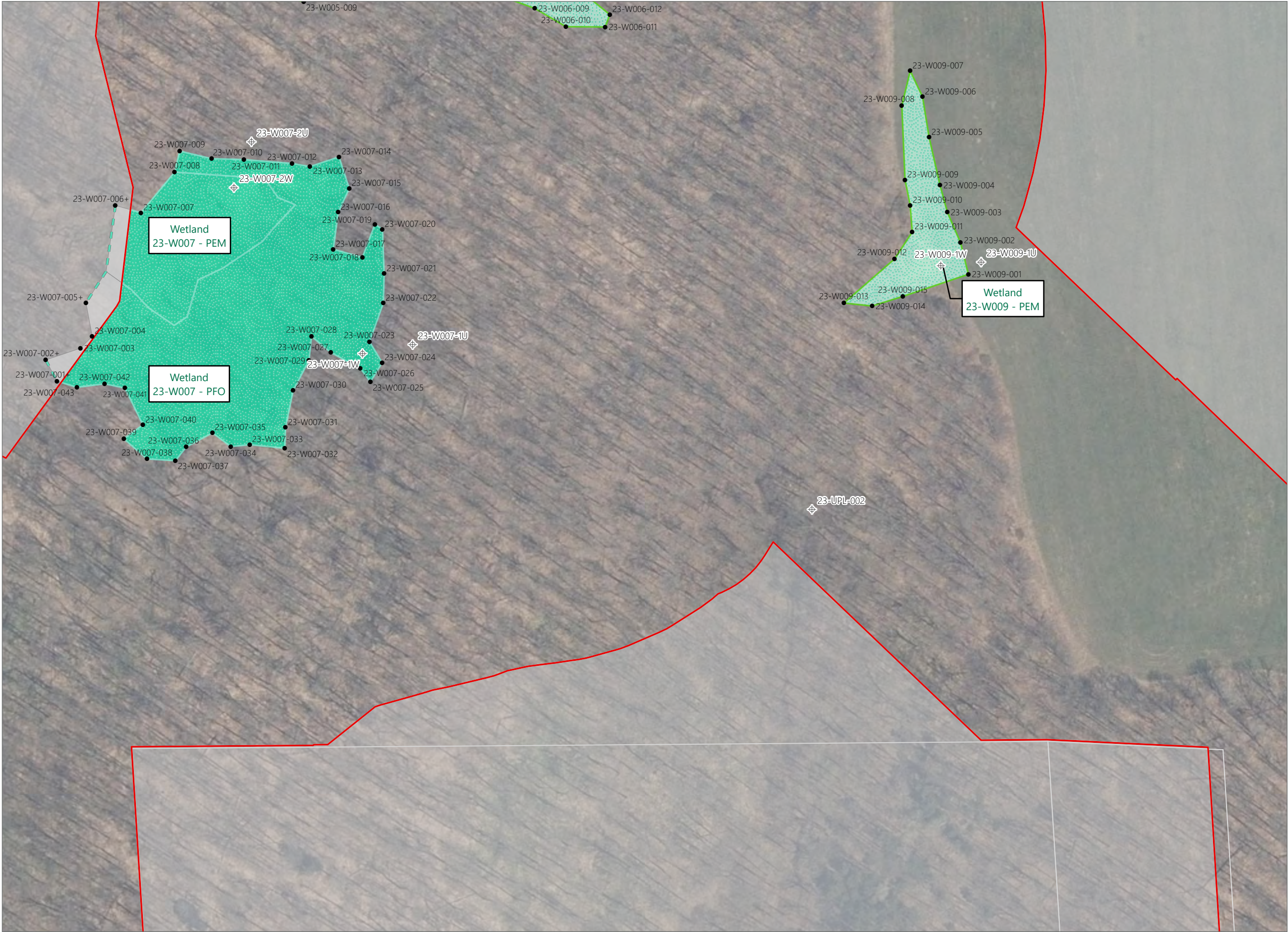




Figure 7. Delineated Wetlands and Streams

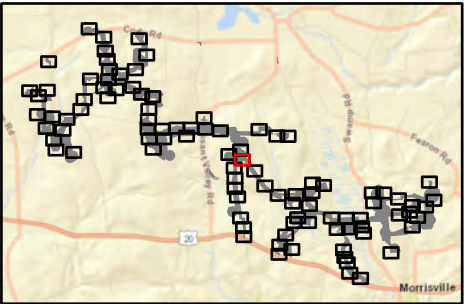


**Hoffman Falls Wind Project**

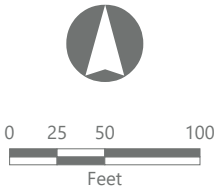
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- Wetland Flag
- ⊕ Datapoint Wetland
- - - Wetland Continues
- ▨ Delineated Wetland Non-Jurisdictional
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



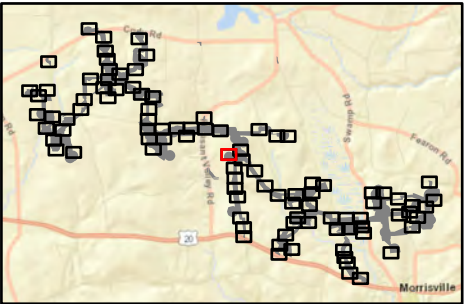
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

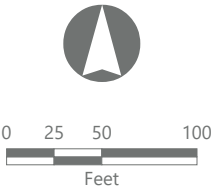
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⛶ Datapoint Stream
- ⛶ Datapoint Wetland
- Wetland Continues
- Delineated Stream w/ Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Basemap: NYSDOP "2022" orthoimagery map service















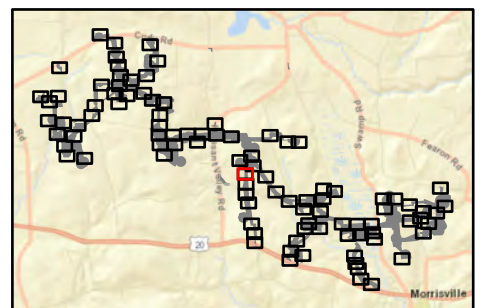


## Hoffman Falls Wind Project

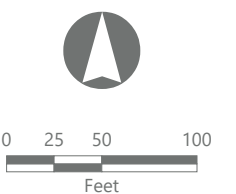
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

-  Stream Flag
-  Wetland Flag
-  Datapoint Stream
-  Datapoint Wetland
-  Wetland Continues
-  Delineated Stream w/ Federal Jurisdictional
-  Delineated Stream outside Study Area
-  Delineated Wetland Non-Jurisdictional
-  Delineated Wetland w/ Federal Jurisdictional
-  Delineated Wetland outside Study Area
-  Study Area
-  Parcel Boundary



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Basemap: NYSDOP "2022" orthoimagery map service



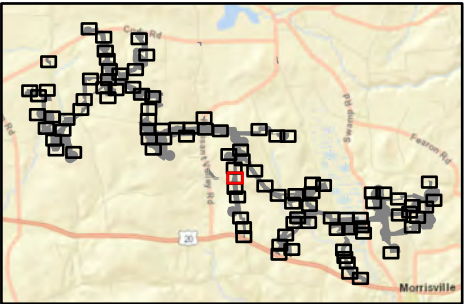
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

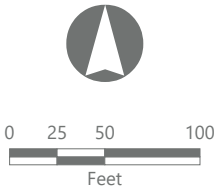
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Culvert
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Basemap: NYS DOP "2022" orthoimagery map service





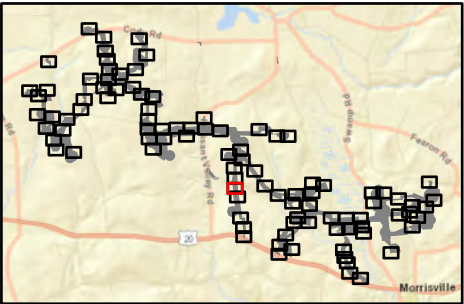
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

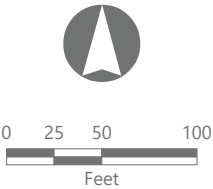
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- ▬ Culvert
- - - Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream w/ State & Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ State & Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYS DOP "2022" orthoimagery map service



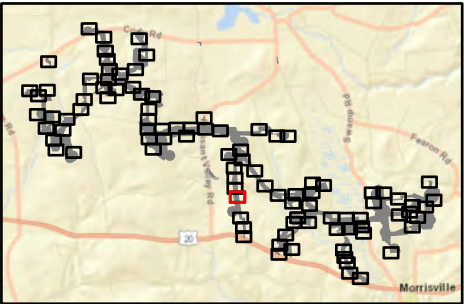


Hoffman Falls Wind Project

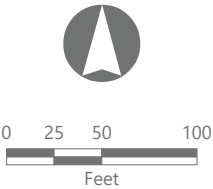
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- - - Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▨ Delineated Wetland w/ State & Federal Jurisdictional
- ▭ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



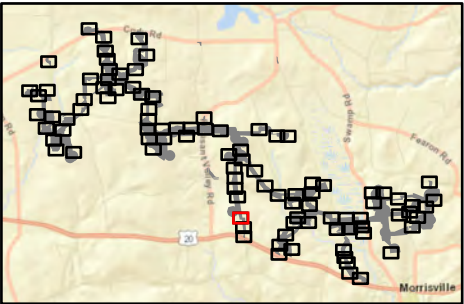
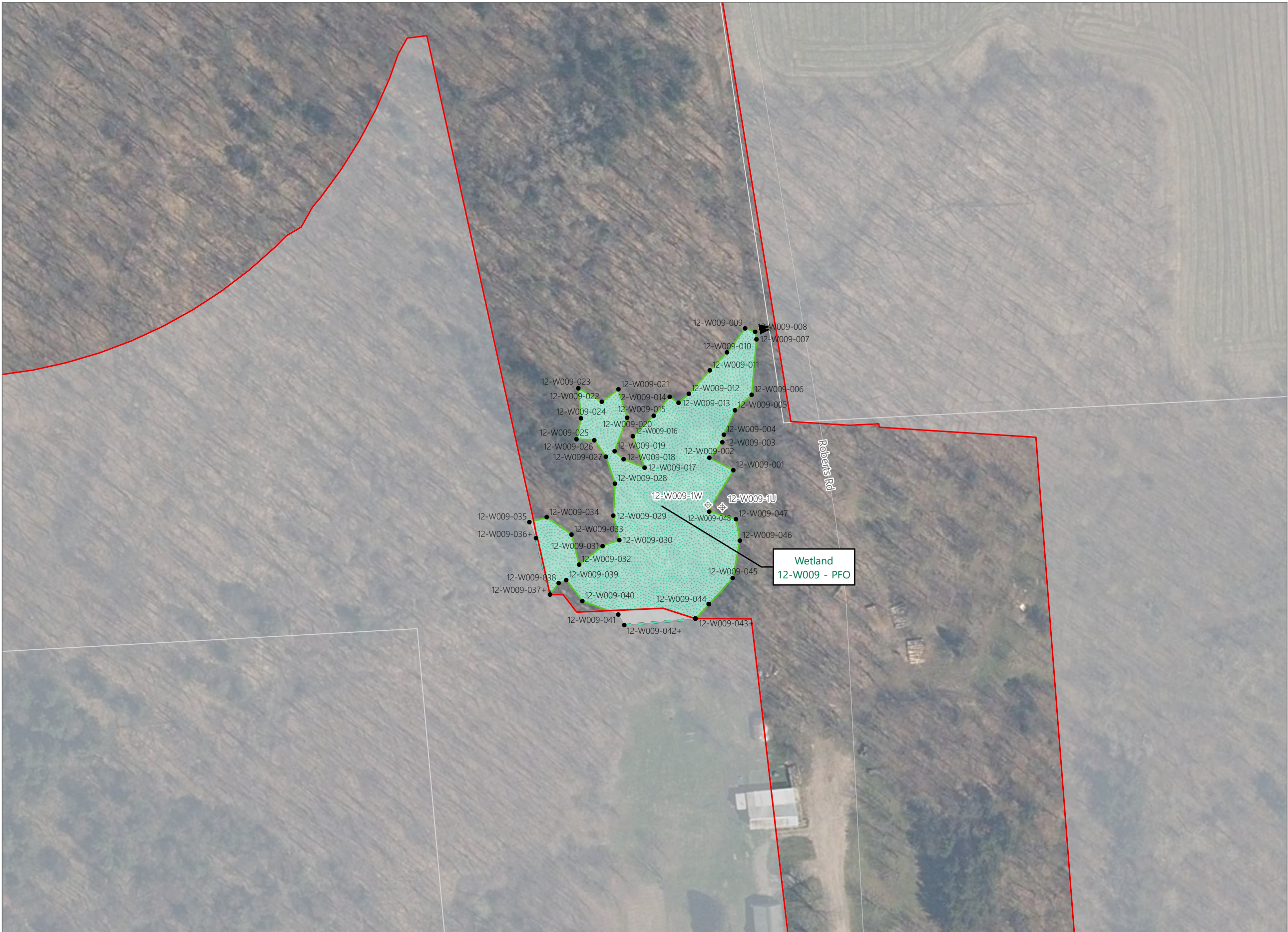
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

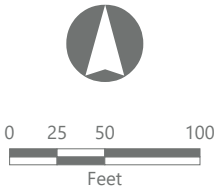
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Culvert
- Wetland Continues
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



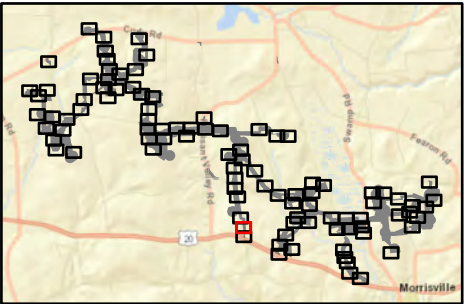
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

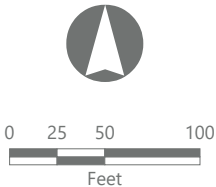
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Wetland Continues
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



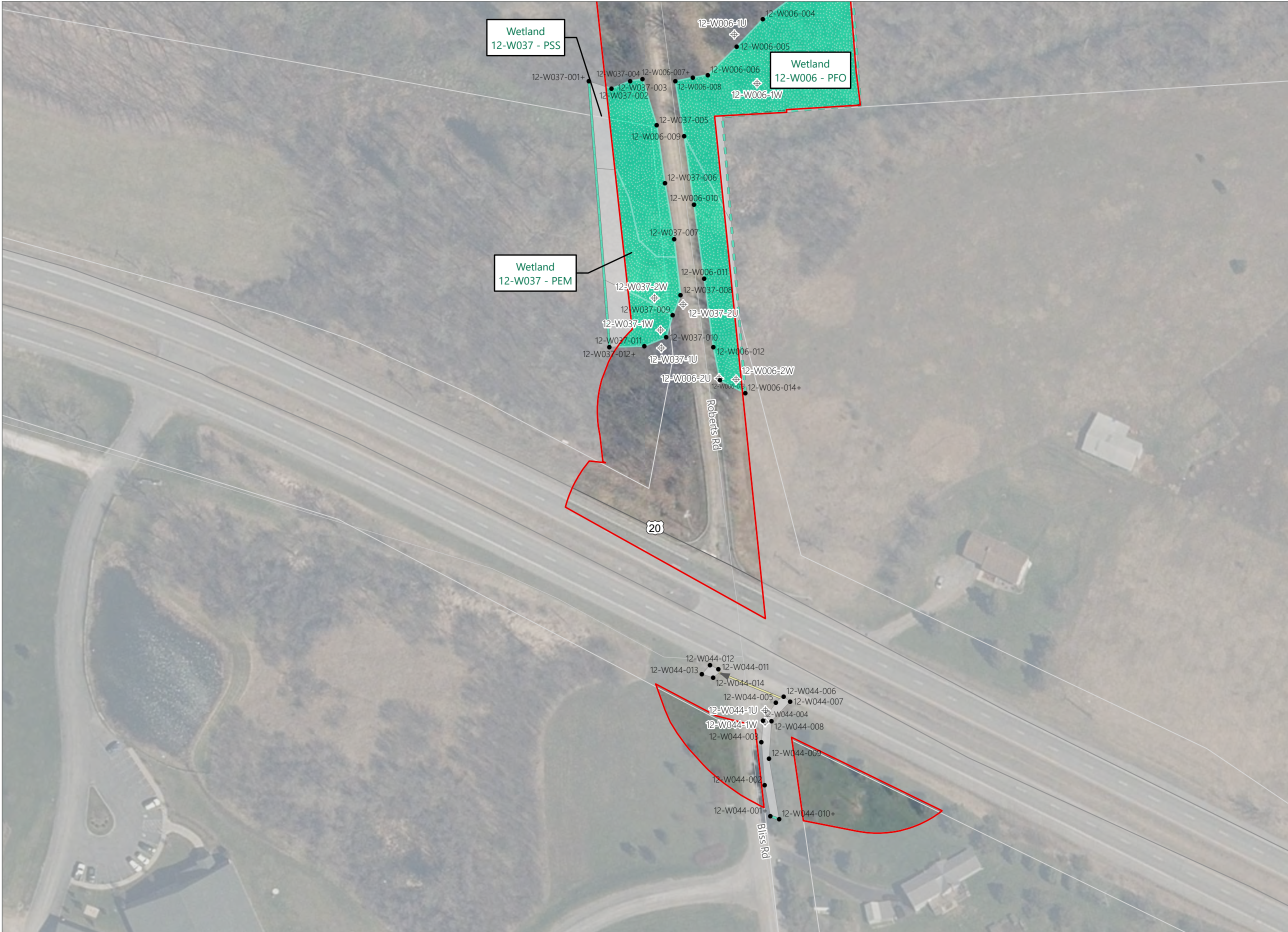
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Basemap: NYS DOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

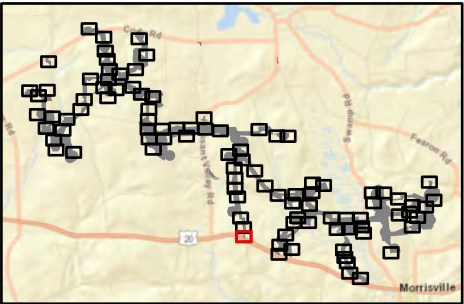


Hoffman Falls Wind Project

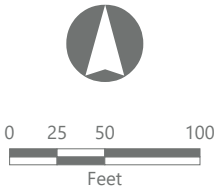
Towns of Eaton, Fenner, Nelson and Smithfield, Madison County, New York

Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- Culvert
- Wetland Continues
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▭ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Wetland Continues
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary

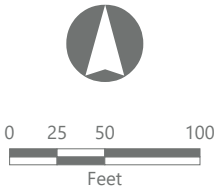
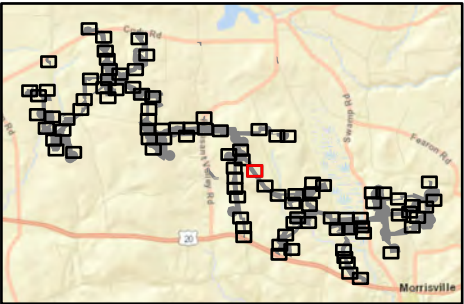




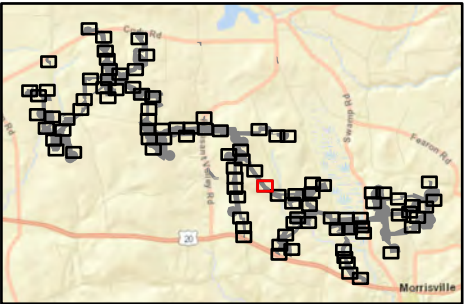
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

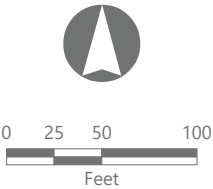
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- Wetland Continues
- Delineated Stream w/ Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service





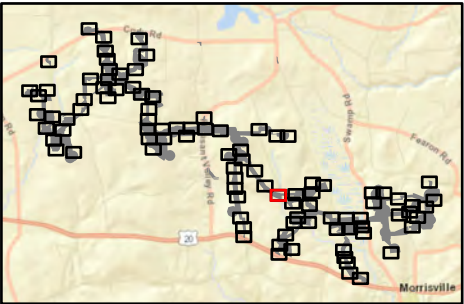
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

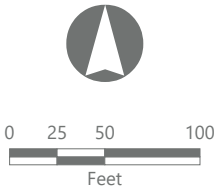
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⛶ Datapoint Stream
- ⛶ Datapoint Wetland
- ➡ Culvert
- Wetland Continues
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



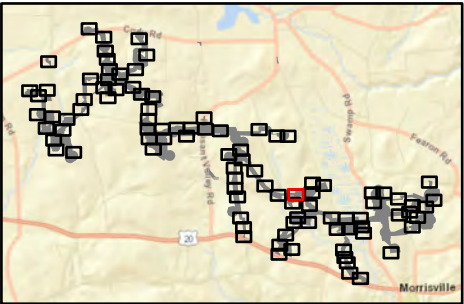
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

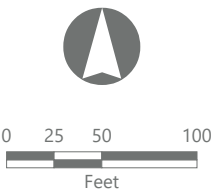
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- ▬ Culvert
- Wetland Continues
- ▬ Delineated Stream Non-Jurisdictional
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

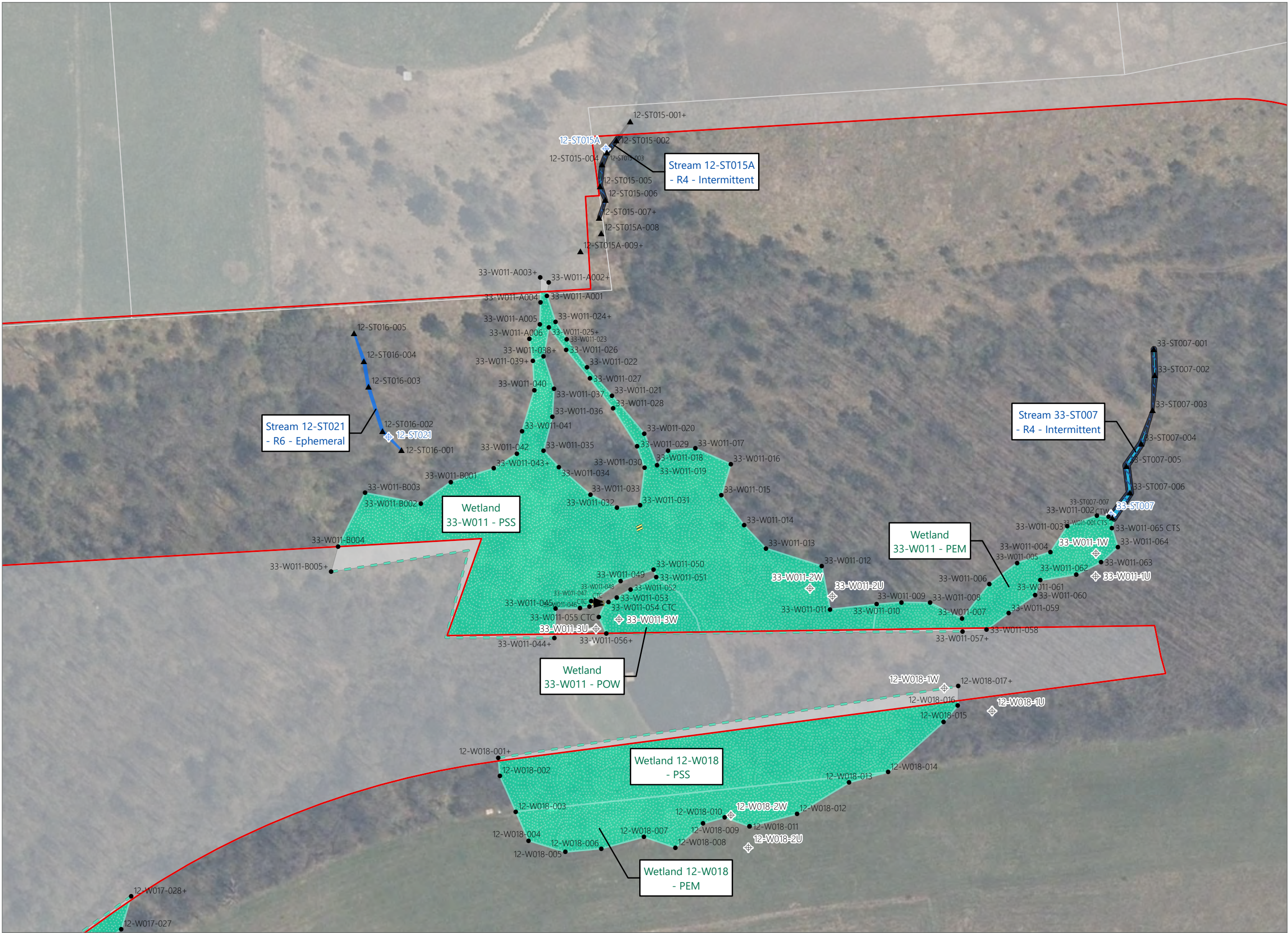




Figure 7. Delineated Wetlands and Streams

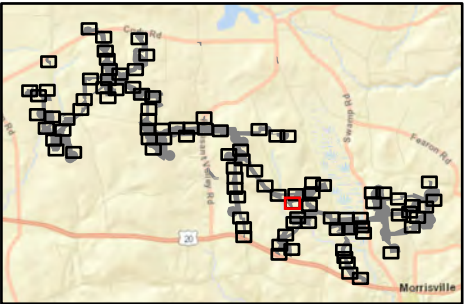


# Hoffman Falls Wind Project

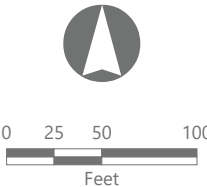
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- Wetland Continues
- ▨ Delineated Wetland Non-Jurisdictional
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



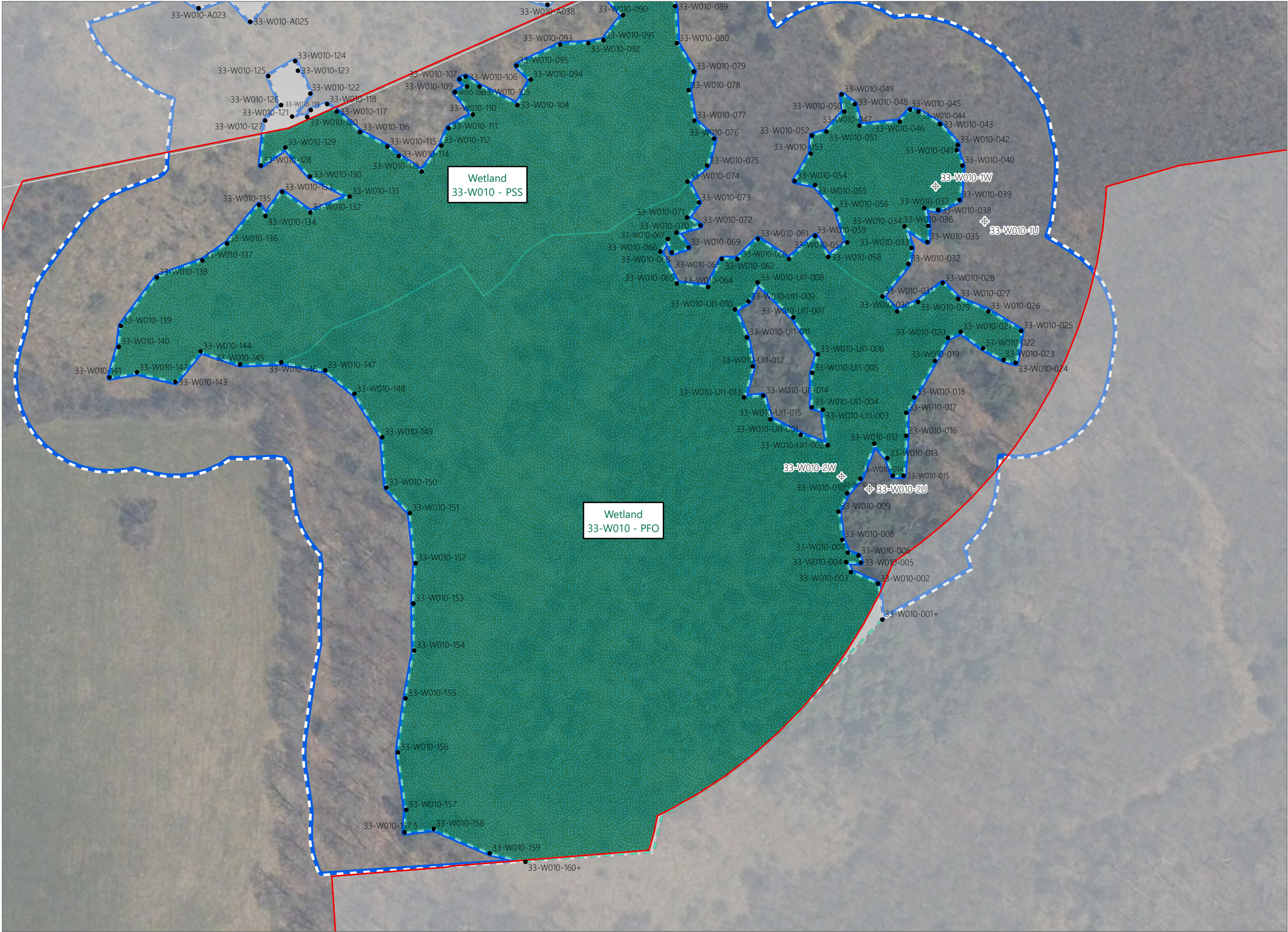
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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

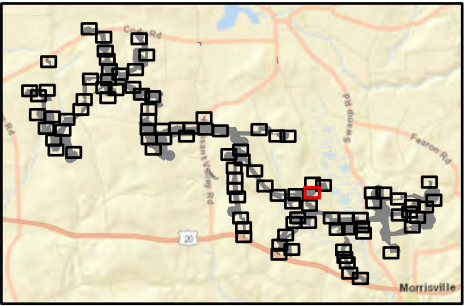


# Hoffman Falls Wind Project

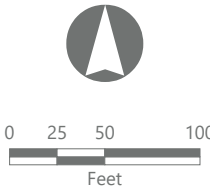
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Wetland w/ State & Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

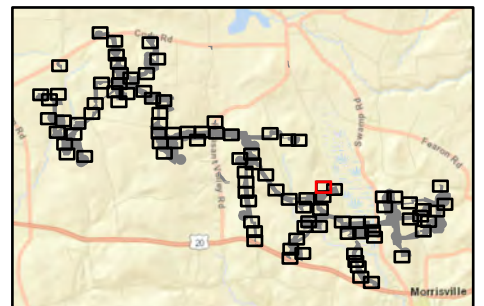


## Hoffman Falls Wind Project

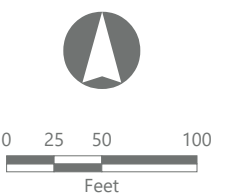
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- Wetland Continues
- 🚧 NYSDEC-Regulated Adjacent Area
- 🌿 Delineated Wetland w/ Federal Jurisdictional
- 🌿 Delineated Wetland w/ State & Federal Jurisdictional
- 🌿 Delineated Wetland outside Study Area
- 🔴 Study Area
- 🏠 Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



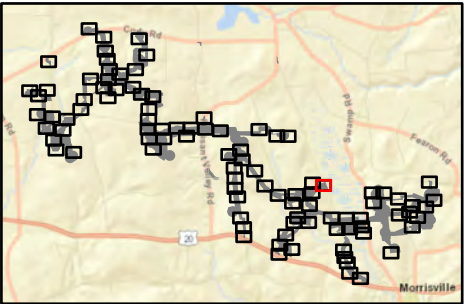
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

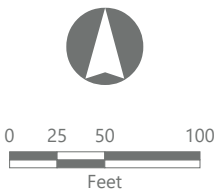
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Wetland Non-Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



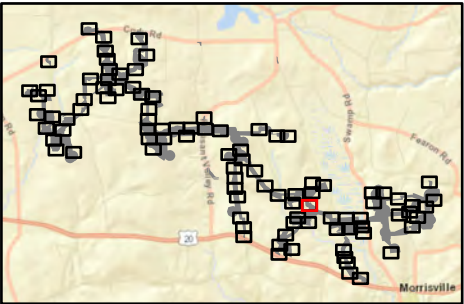
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

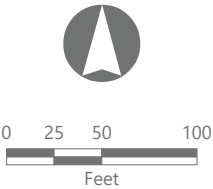
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

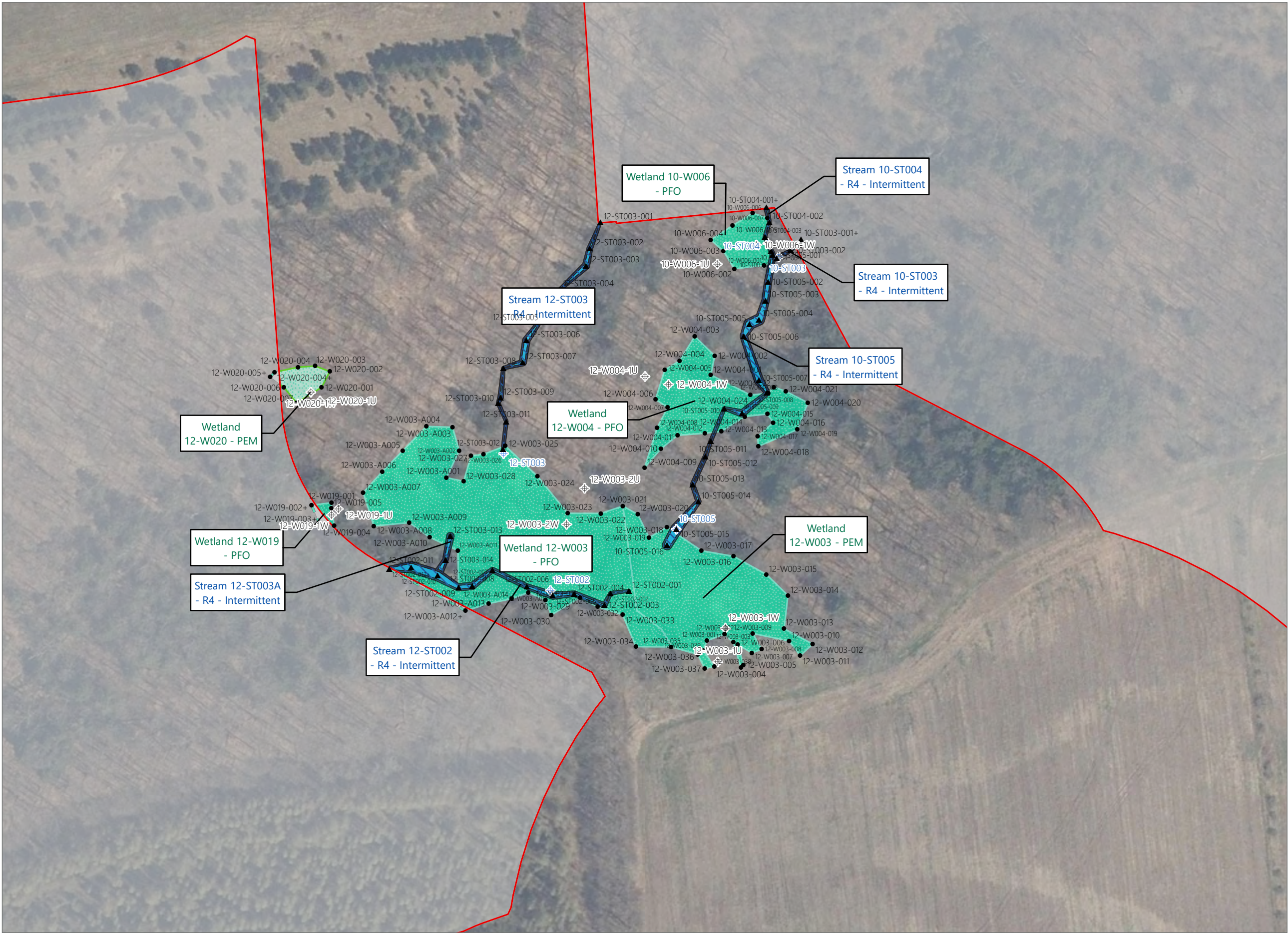
- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- Wetland Continues
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland Non-Jurisdictional
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

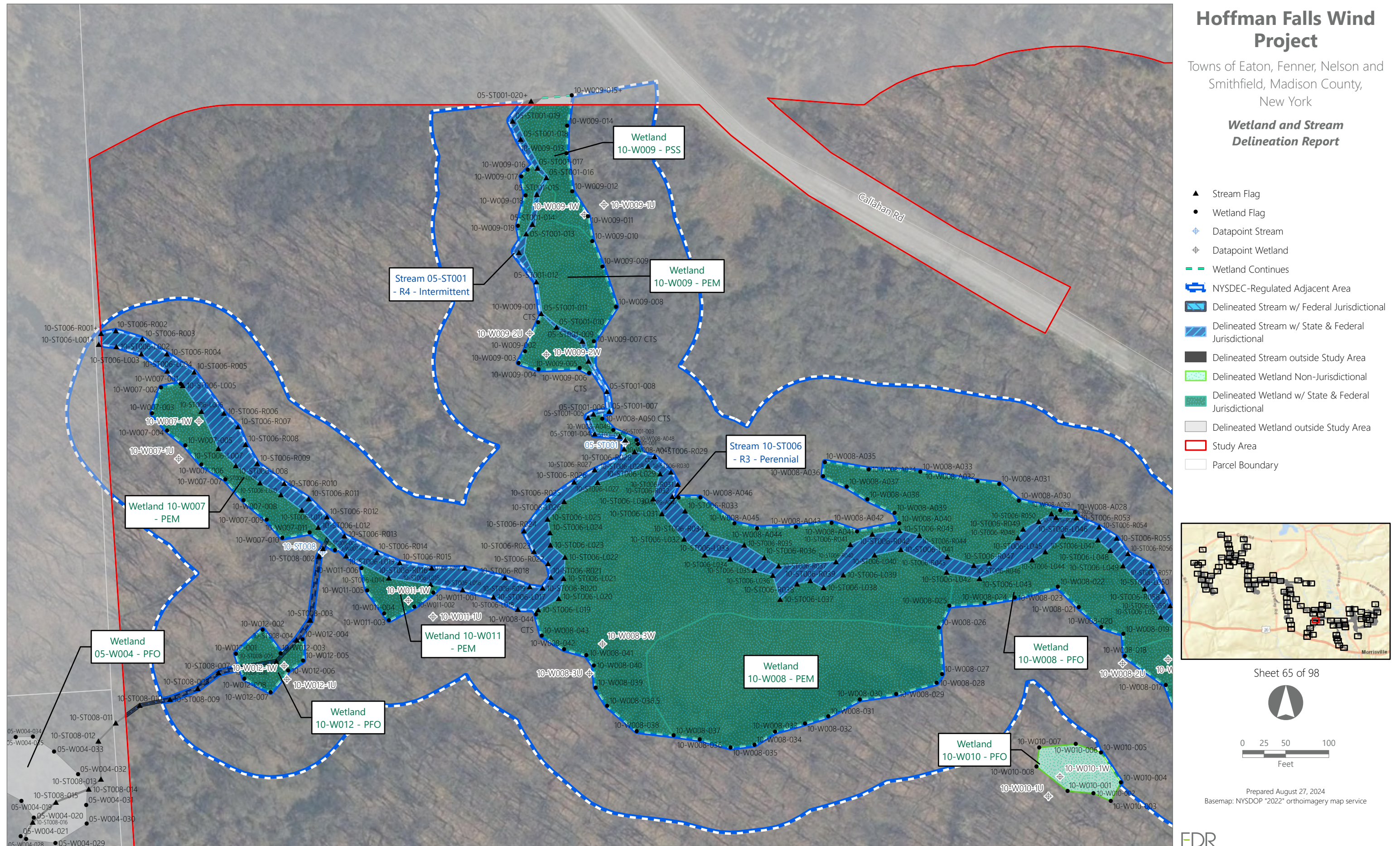




# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report



Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



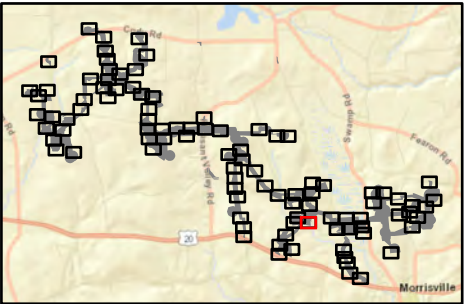


**Hoffman Falls Wind Project**

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- ▬ Culvert
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream w/ State & Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland Non-Jurisdictional
- ▬ Delineated Wetland w/ State & Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



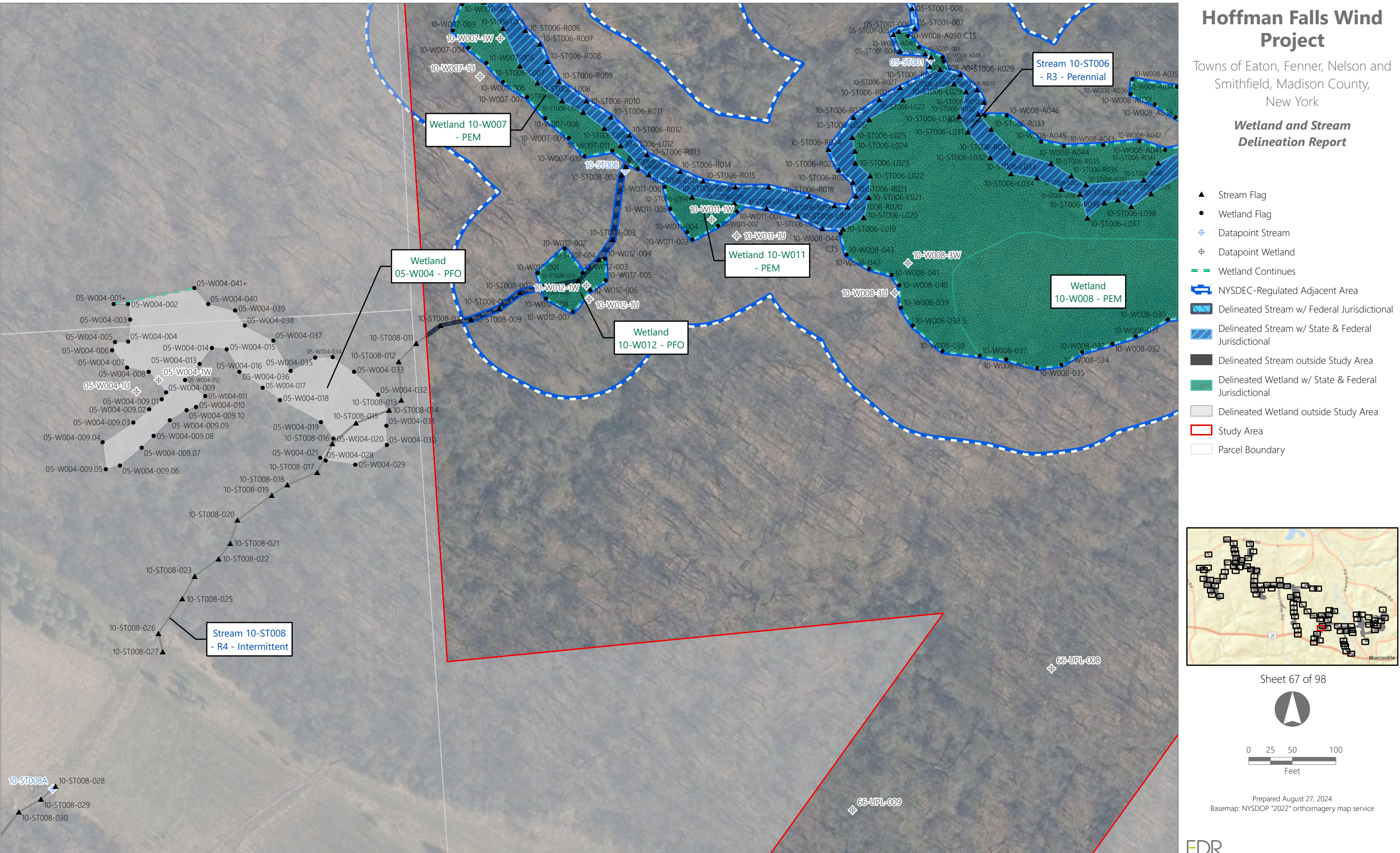
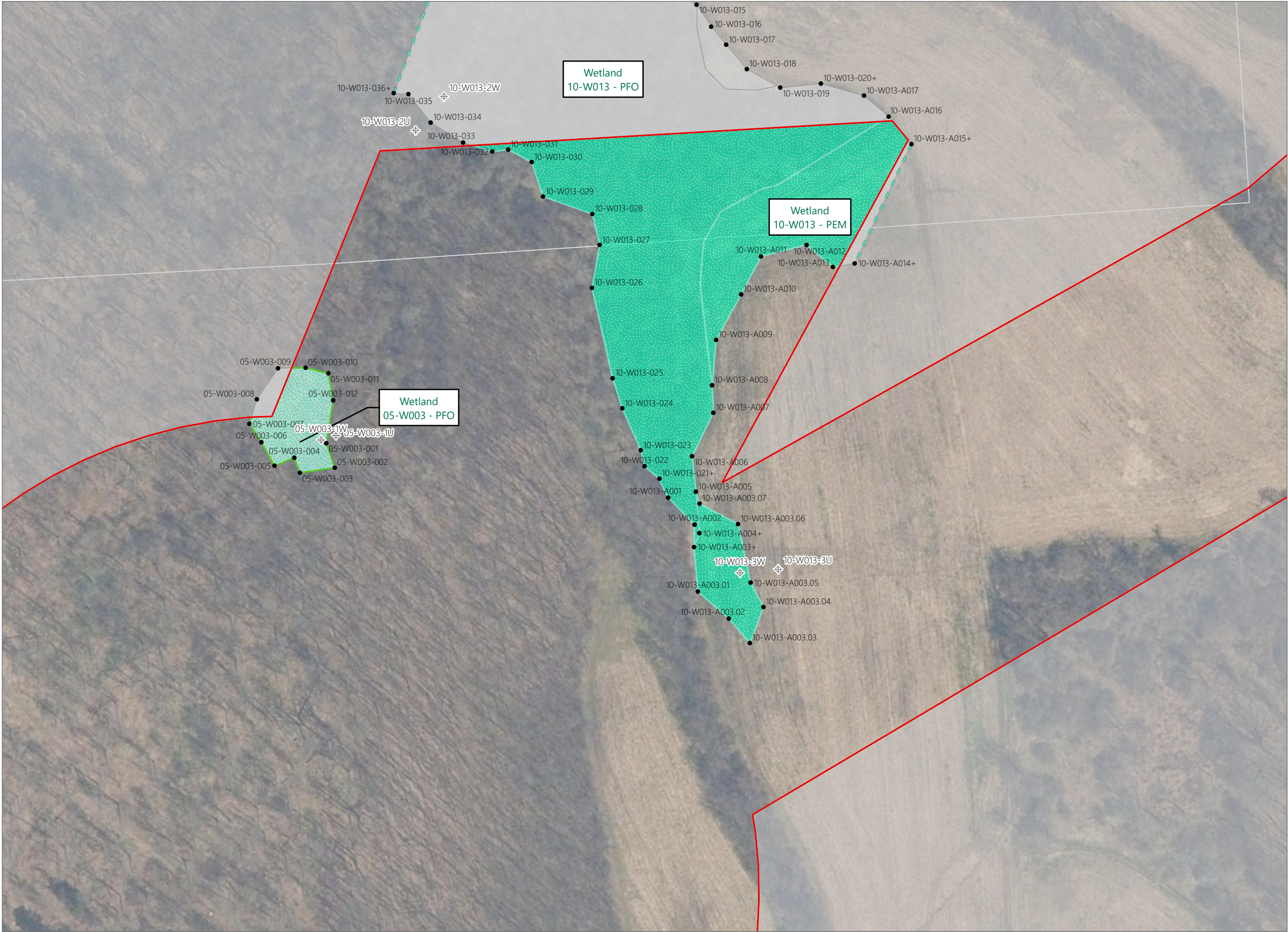




Figure 7. Delineated Wetlands and Streams

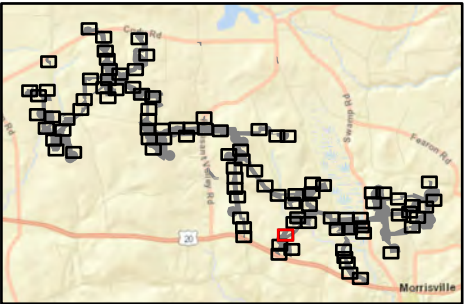


# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- Wetland Continues
- ▨ Delineated Wetland Non-Jurisdictional
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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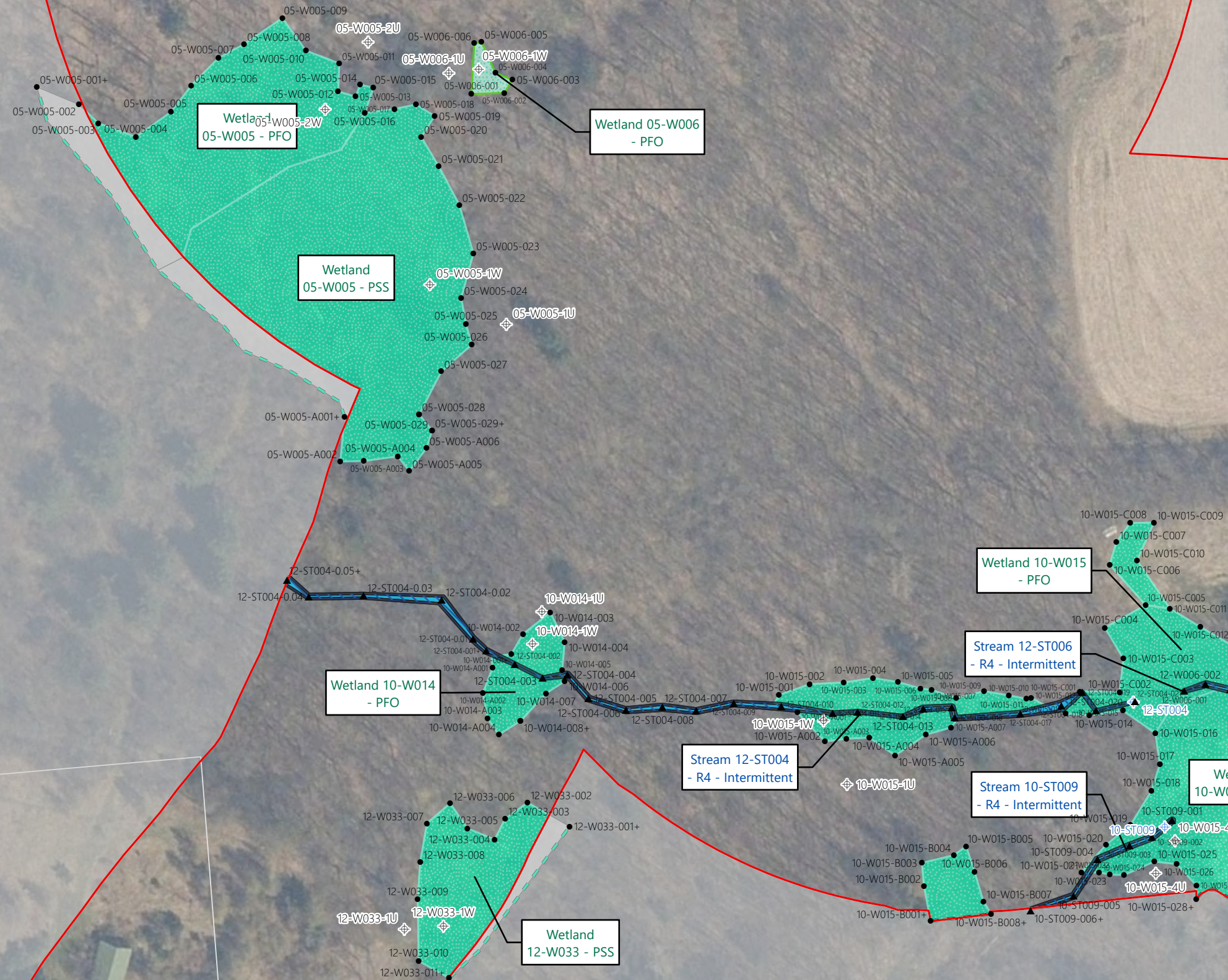
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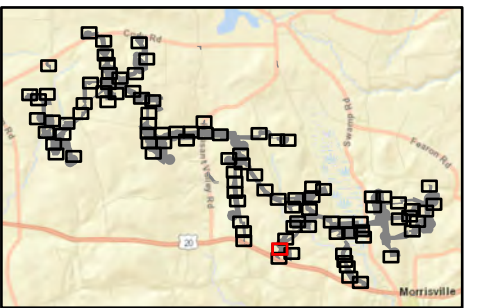
# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

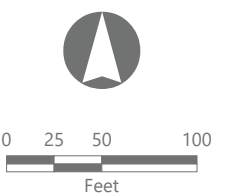
## Wetland and Stream Delineation Report



-  Stream Flag
-  Wetland Flag
-  Datapoint Stream
-  Datapoint Wetland
-  Wetland Continues
-  Delineated Stream w/ Federal Jurisdictional
-  Delineated Stream outside Study Area
-  Delineated Wetland Non-Jurisdictional
-  Delineated Wetland w/ Federal Jurisdictional
-  Delineated Wetland outside Study Area
-  Study Area
-  Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



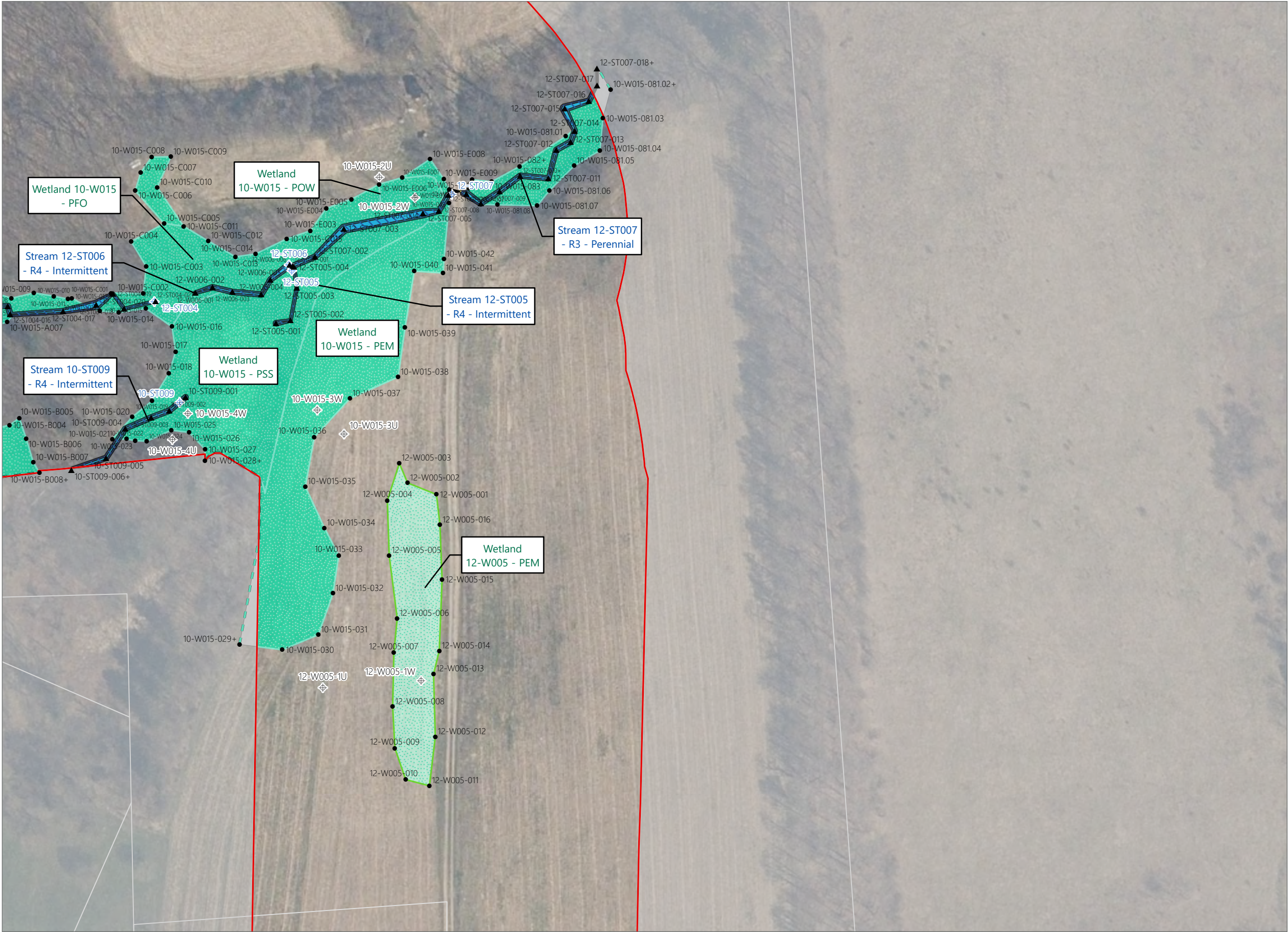




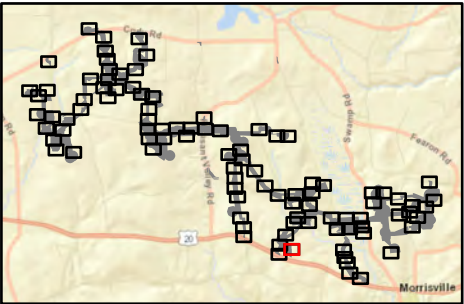
Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

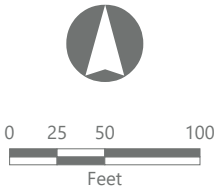
Wetland and Stream  
Delineation Report



- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- ▬ Culvert
- Wetland Continues
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland Non-Jurisdictional
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

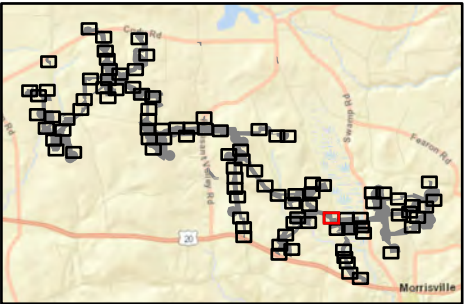


**Hoffman Falls Wind Project**

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- Culvert
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland Non-Jurisdictional
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



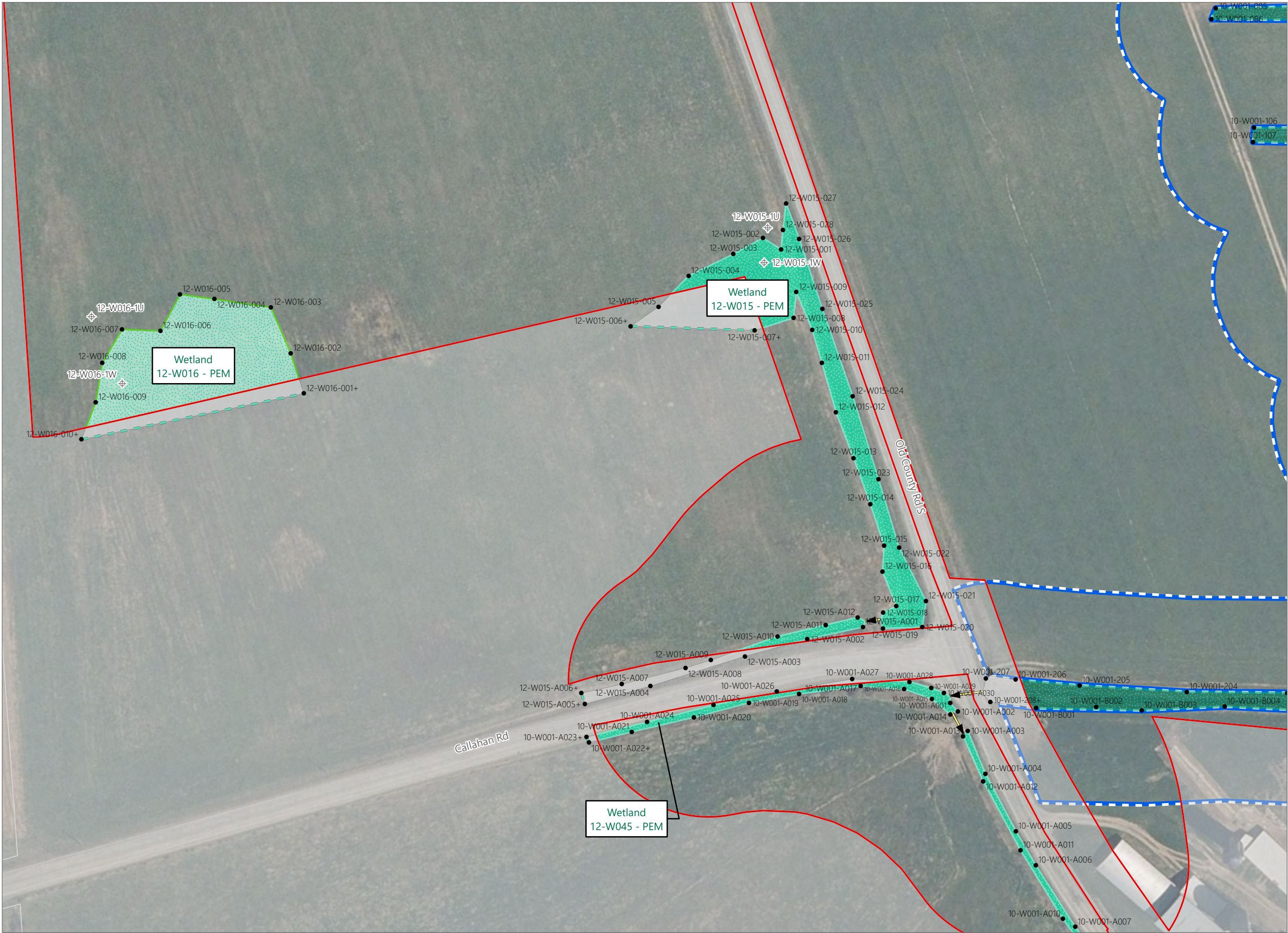
Sheet 72 of 98



Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

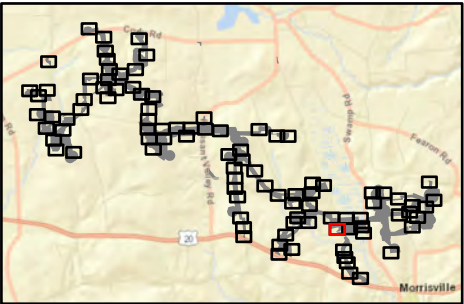


# Hoffman Falls Wind Project

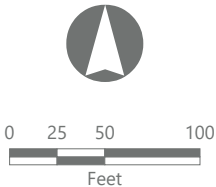
Towns of Eaton, Fenner, Nelson and Smithfield, Madison County, New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- Culvert
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▨ Delineated Wetland Non-Jurisdictional
- ▤ Delineated Wetland w/ Federal Jurisdictional
- ▦ Delineated Wetland w/ State & Federal Jurisdictional
- ▧ Delineated Wetland outside Study Area
- ▩ Study Area
- Parcel Boundary



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Basemap: NYS DOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

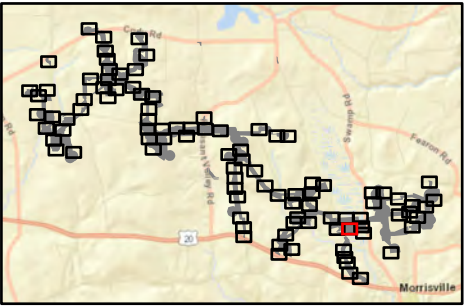


# Hoffman Falls Wind Project

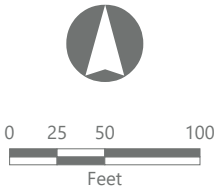
Towns of Eaton, Fenner, Nelson and Smithfield, Madison County, New York

## Wetland and Stream Delineation Report

- Wetland Flag
- Culvert
- - - Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▨ Delineated Wetland w/ State & Federal Jurisdictional
- ▭ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Basemap: NYSDOP "2022" orthoimagery map service



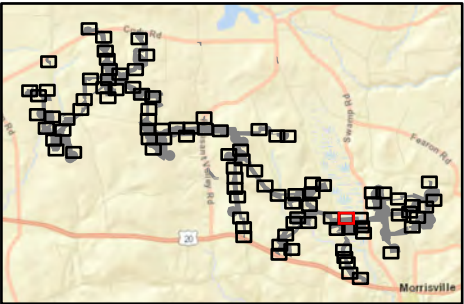
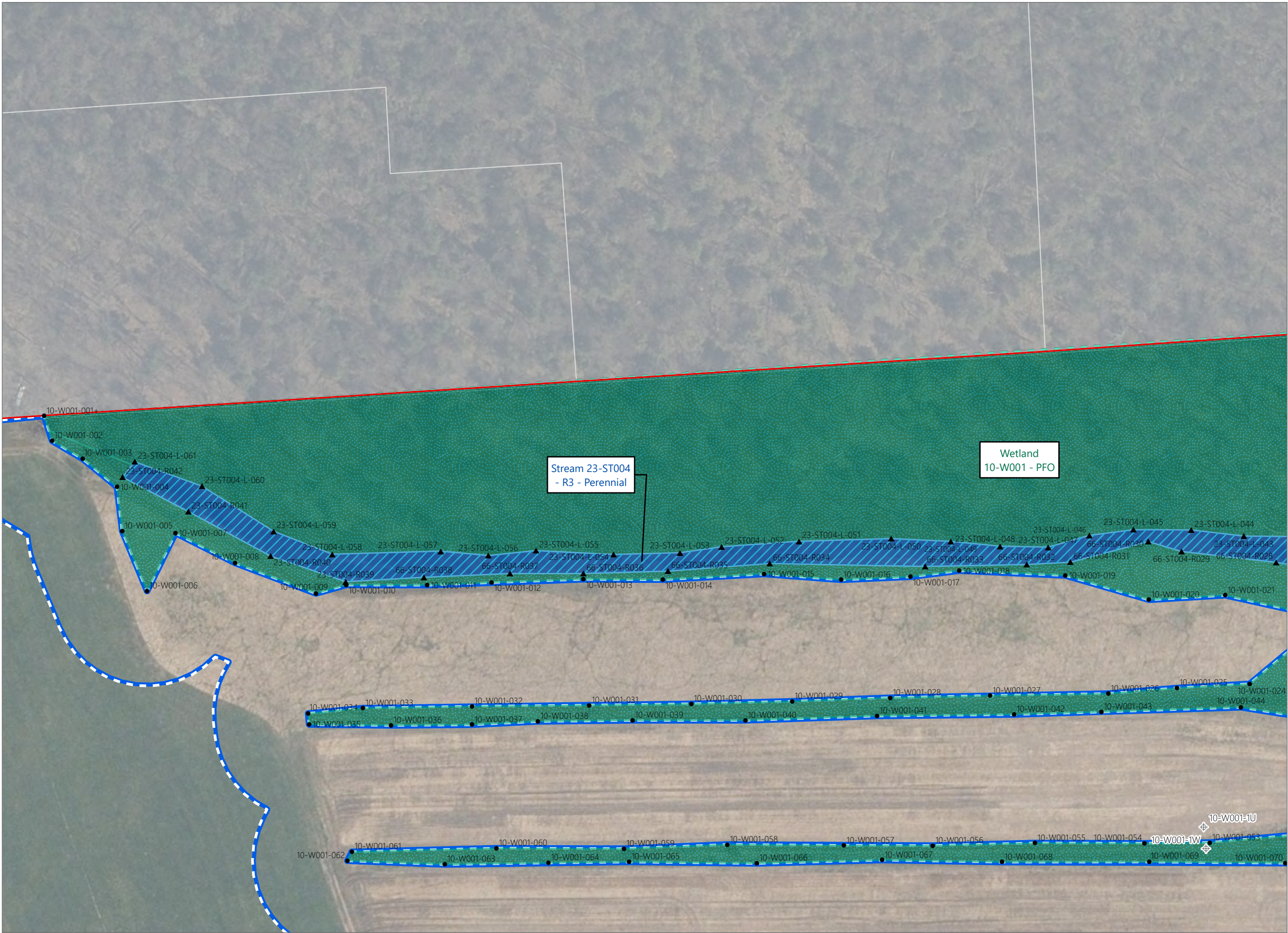
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

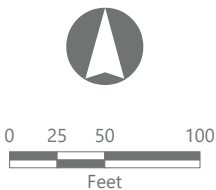
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Wetland
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▨ Delineated Stream w/ State & Federal Jurisdictional
- ▩ Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDEC "2022" orthoimagery map service



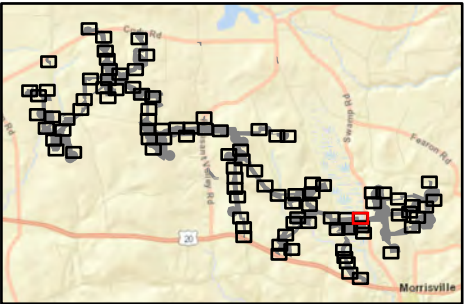
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

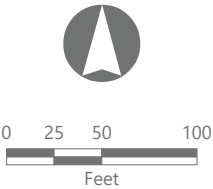
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

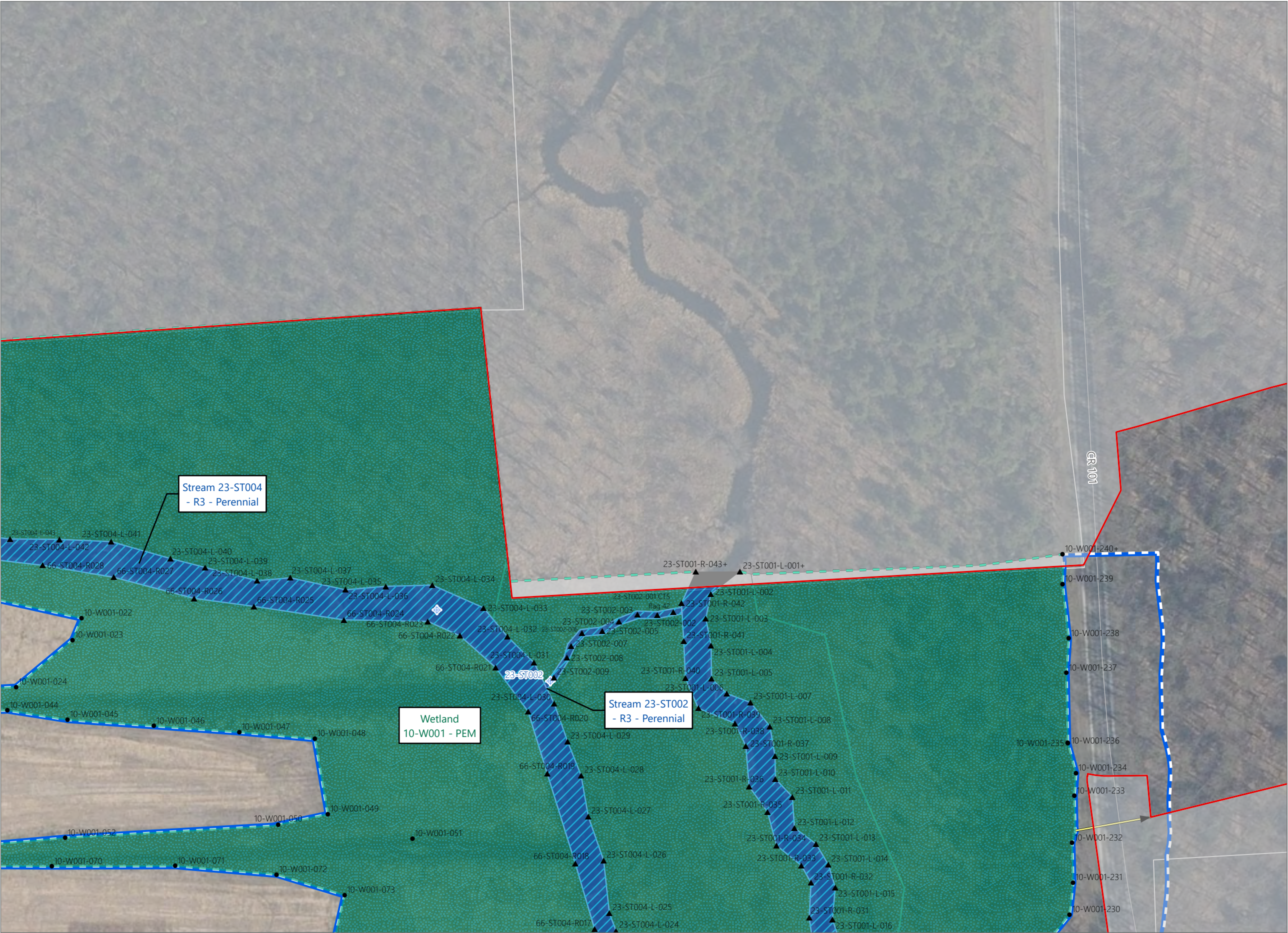
- ▲ Stream Flag
- Wetland Flag
- ⛶ Datapoint Stream
- ➡ Culvert
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▨ Delineated Stream w/ State & Federal Jurisdictional
- Delineated Stream outside Study Area
- ▨ Delineated Wetland w/ State & Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Basemap: NYS DOP "2022" orthoimagery map service













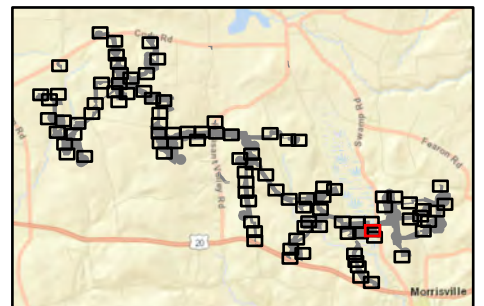


# Hoffman Falls Wind Project

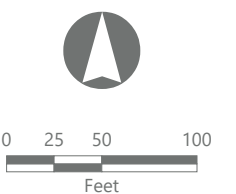
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

-  Stream Flag
-  Wetland Flag
-  Datapoint Stream
-  Datapoint Wetland
-  Culvert
-  NYSDEC-Regulated Adjacent Area
-  Delineated Stream w/ State & Federal Jurisdictional
-  Delineated Wetland w/ State & Federal Jurisdictional
-  Study Area
-  Parcel Boundary



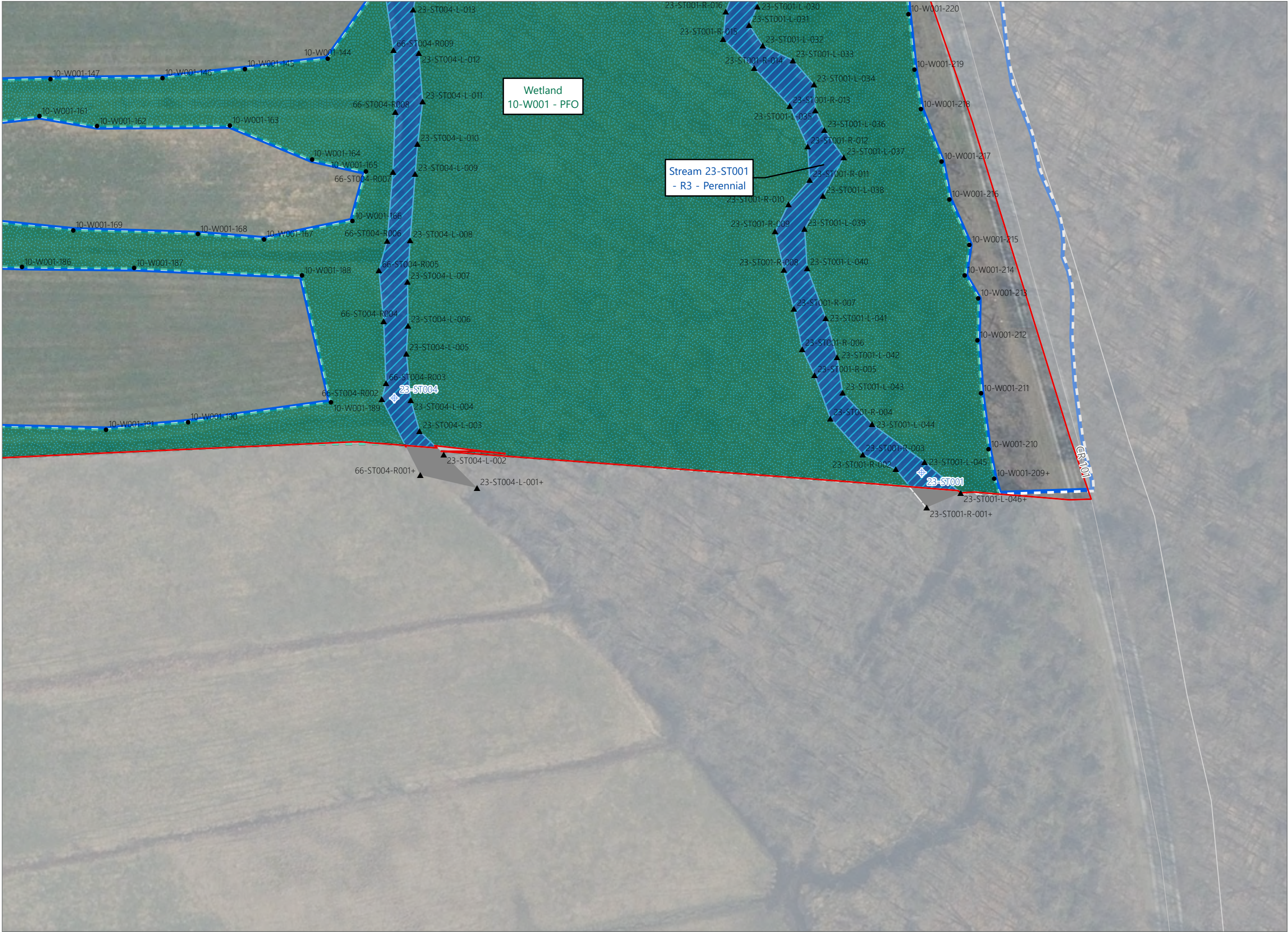
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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

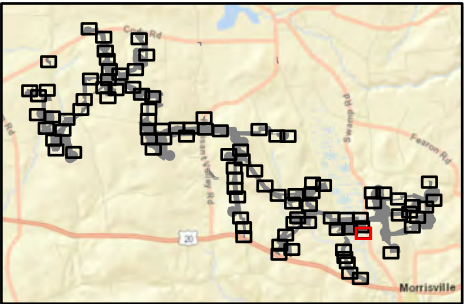


# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Stream w/ State & Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYS DOP "2022" orthoimagery map service

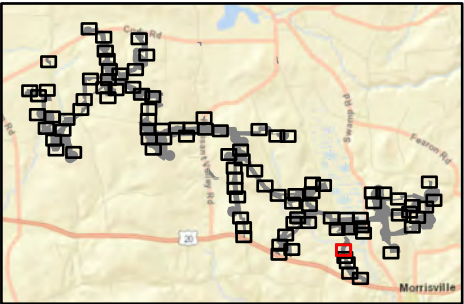


Hoffman Falls Wind Project

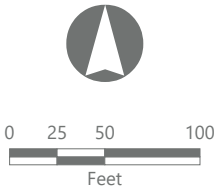
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Stream w/ State & Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ State & Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

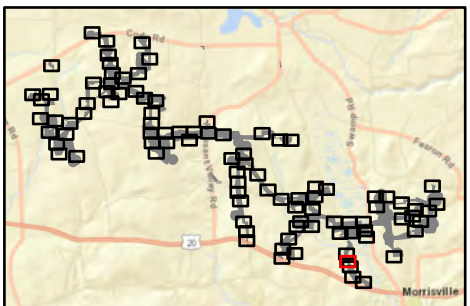
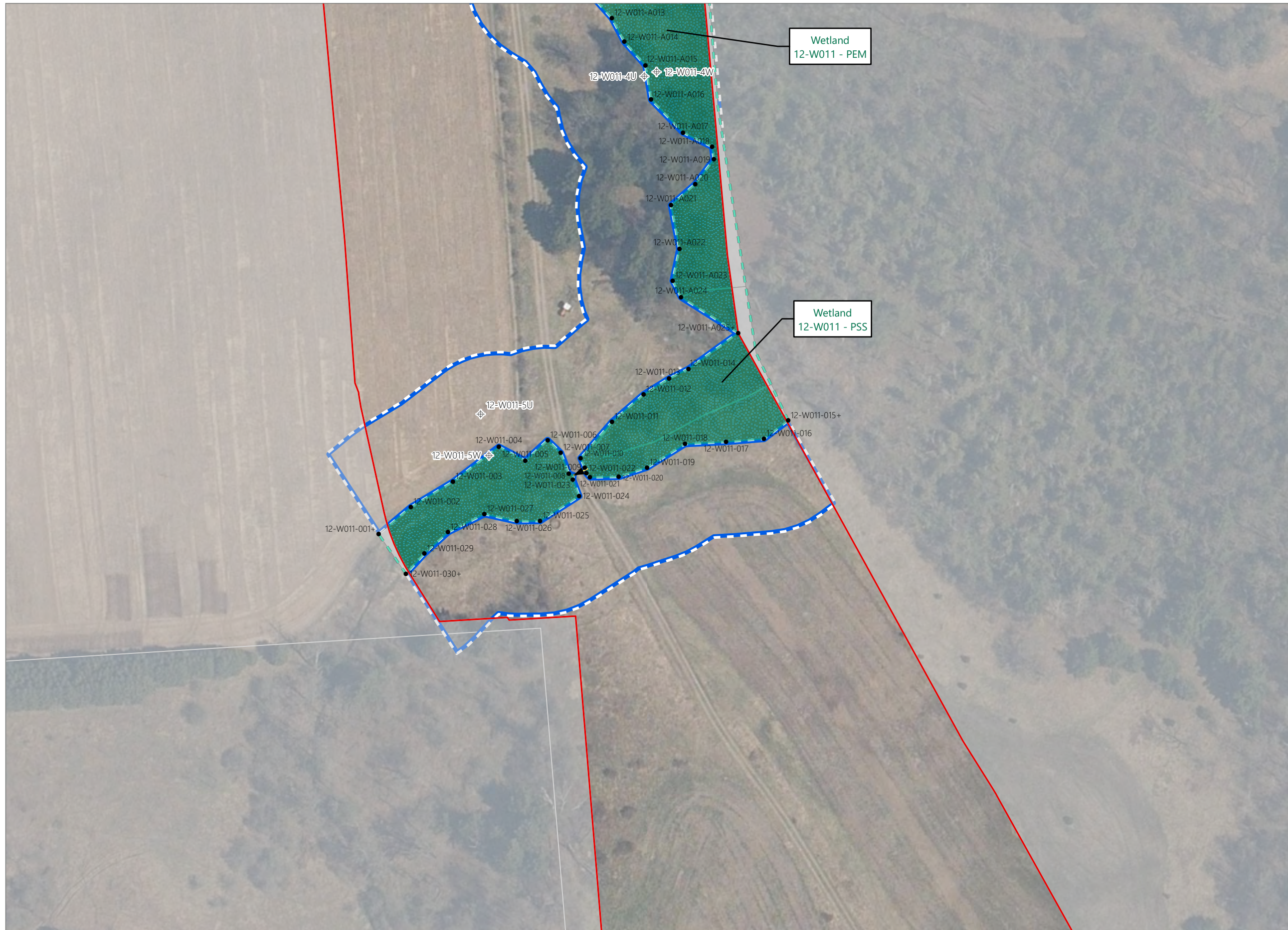


## Hoffman Falls Wind Project

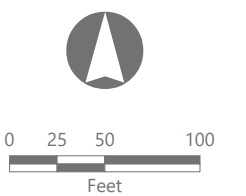
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- Wetland Flag
- ⊕ Datapoint Wetland
- ⇒ Culvert
- Wetland Continues
- NYSDAP Regulated Adjacent Area
- ▨ Delineated Wetland w/ State & Federal Jurisdictional
- ▩ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



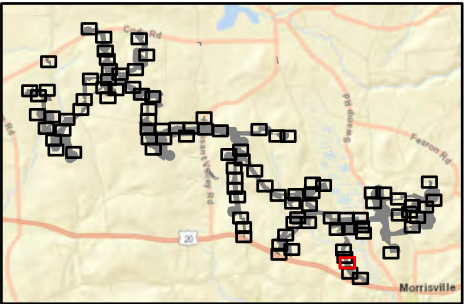
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

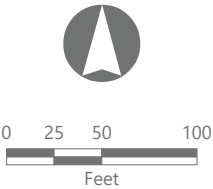
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Datapoint Wetland
- Culvert
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

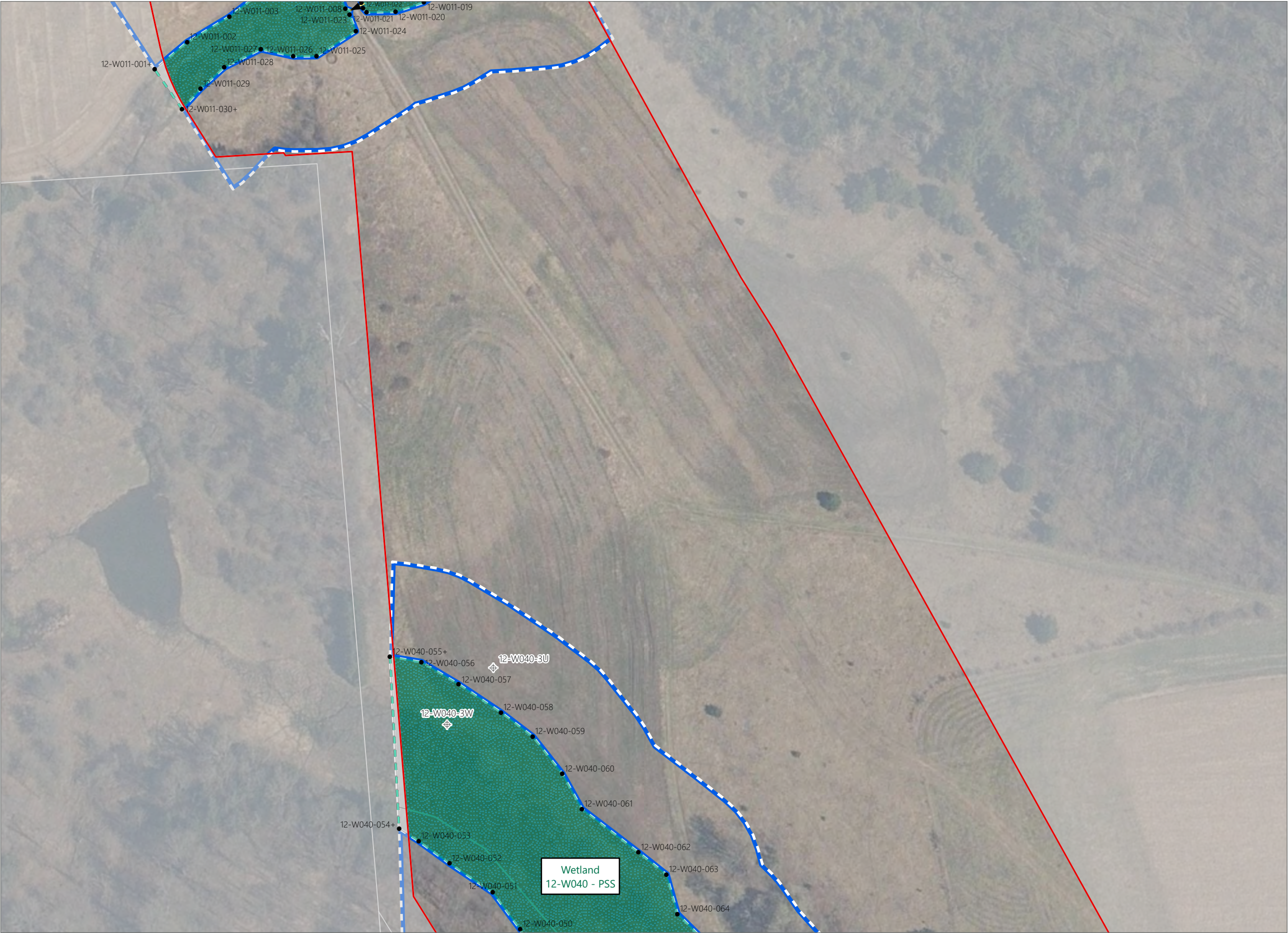




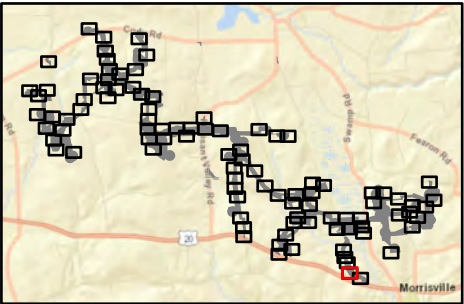
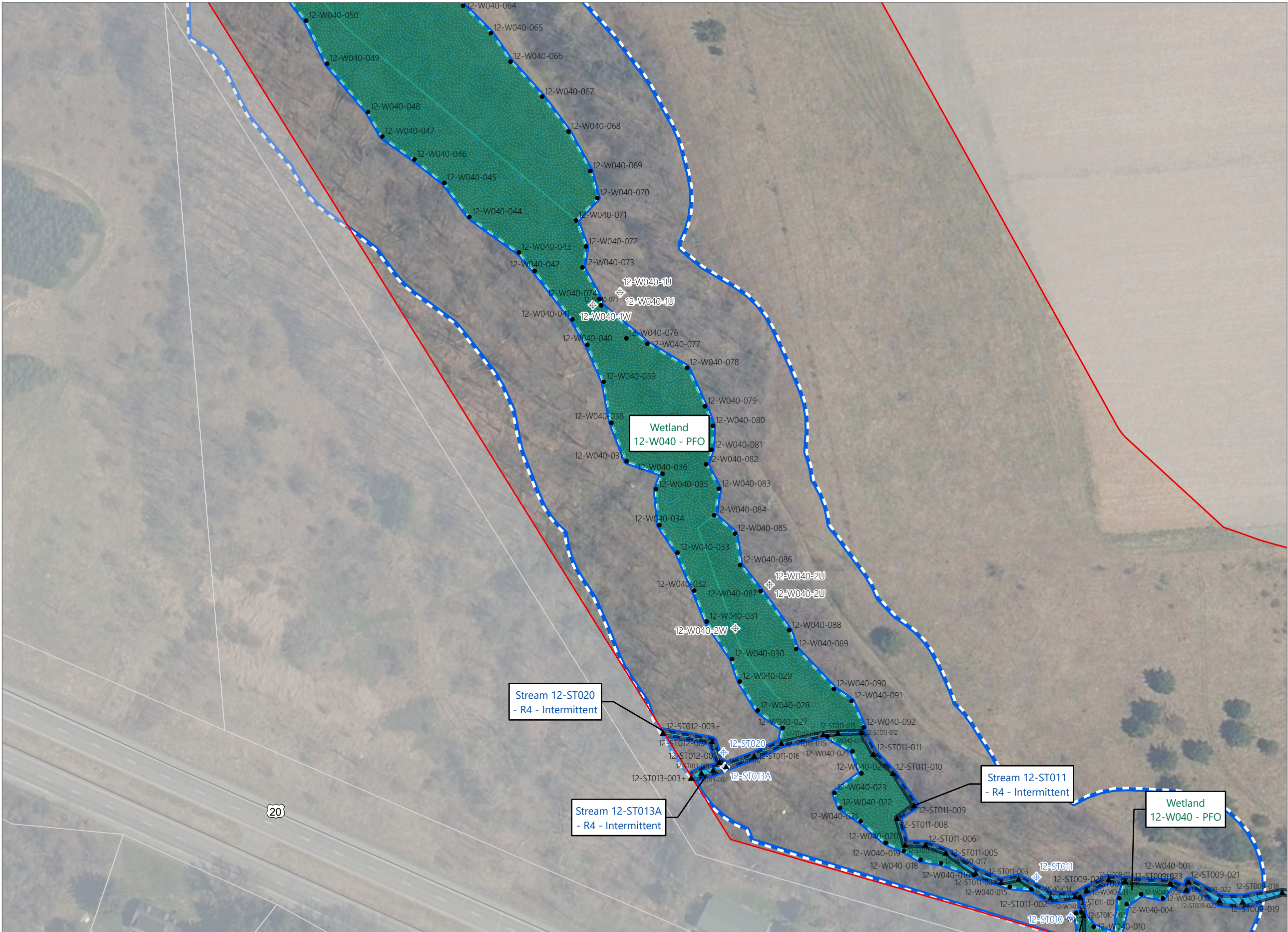
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

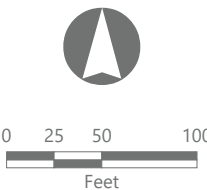
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- NYSDEC-Regulated Adjacent Area
- Delineated Stream w/ Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland w/ State & Federal Jurisdictional
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYS DOP "2022" orthoimagery map service



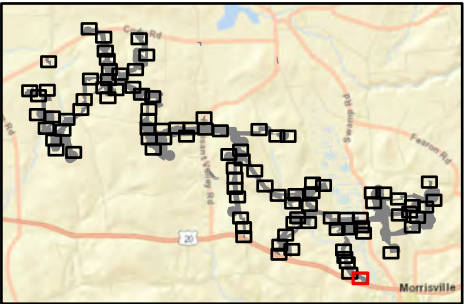
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

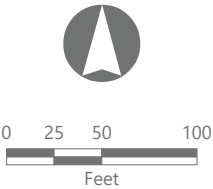
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⛶ Datapoint Stream
- ➡ Culvert
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ State & Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service





Hoffman Falls Wind Project

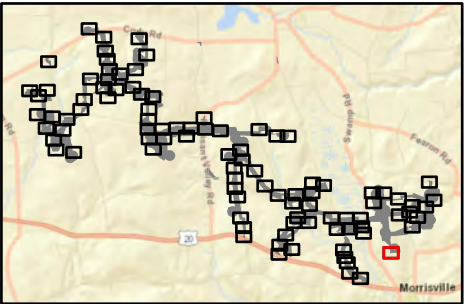
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

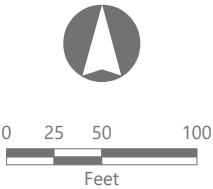
- Wetland Flag
- Delineated Wetland Non-Jurisdictional
- Study Area
- Parcel Boundary

Wetland  
01-W004 - PEM

W004-001  
W004-002  
W004-003  
W004-004  
W004-005



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

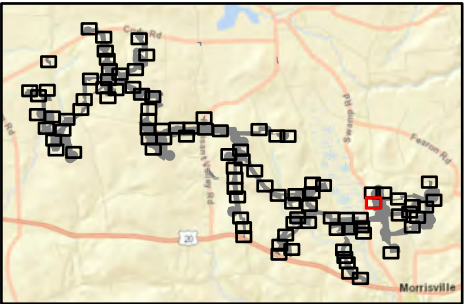
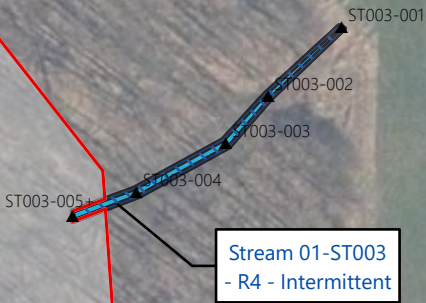


Hoffman Falls Wind Project

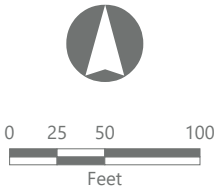
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- ▮ Delineated Stream w/ Federal Jurisdictional
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service

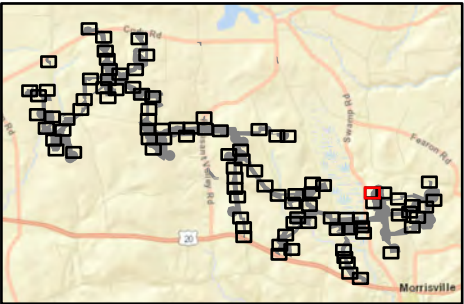
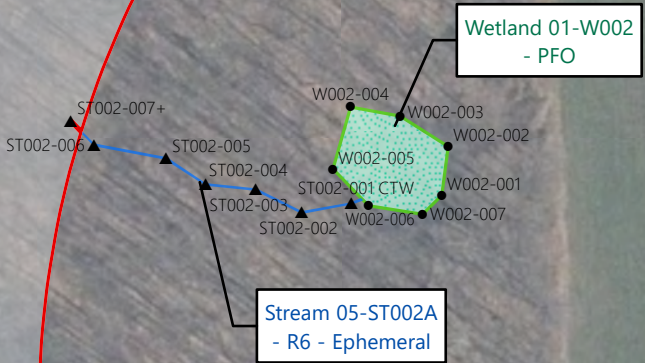


Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
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New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- Blue line Delineated Stream Non-Jurisdictional
- Green hatched area Delineated Wetland Non-Jurisdictional
- Red outline Study Area
- Thin grey line Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



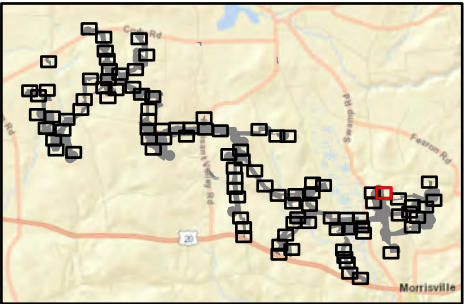
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

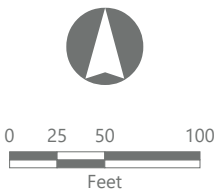
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- Wetland Continues
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service





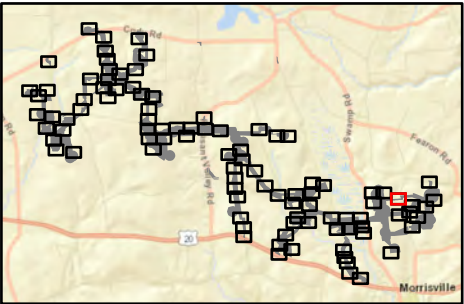
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Delineated Stream Non-Jurisdictional
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



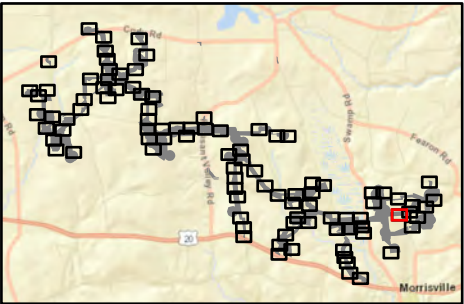
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Wetland Continues
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

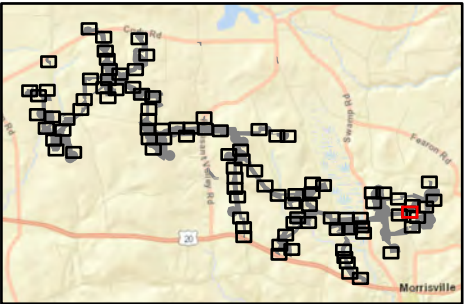


**Hoffman Falls Wind Project**

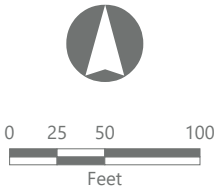
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- - - Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Stream Non-Jurisdictional
- Delineated Stream w/ Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

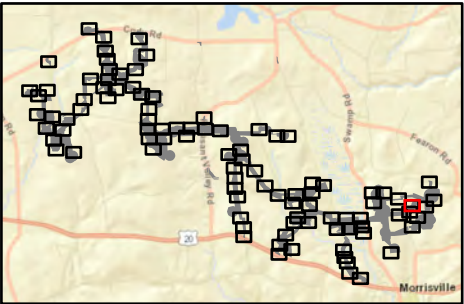


# Hoffman Falls Wind Project

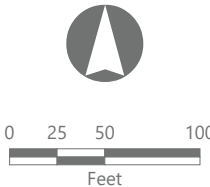
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

## Wetland and Stream Delineation Report

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Stream Non-Jurisdictional
- Delineated Stream w/ Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland w/ State & Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYS DOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

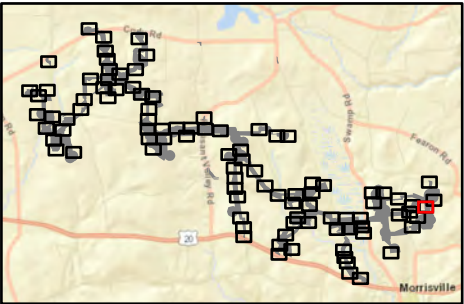


**Hoffman Falls Wind Project**

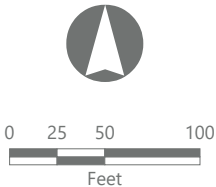
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- ▲ Stream Flag
- Wetland Flag
- + Datapoint Stream
- + Datapoint Wetland
- Wetland Continues
- NYSDEC-Regulated Adjacent Area
- Delineated Stream Non-Jurisdictional
- Delineated Stream w/ Federal Jurisdictional
- Delineated Stream outside Study Area
- Delineated Wetland w/ Federal Jurisdictional
- Delineated Wetland outside Study Area
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYS DOP "2022" orthoimagery map service

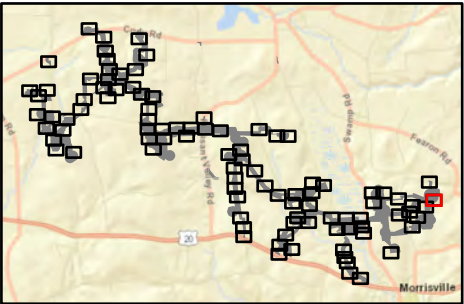
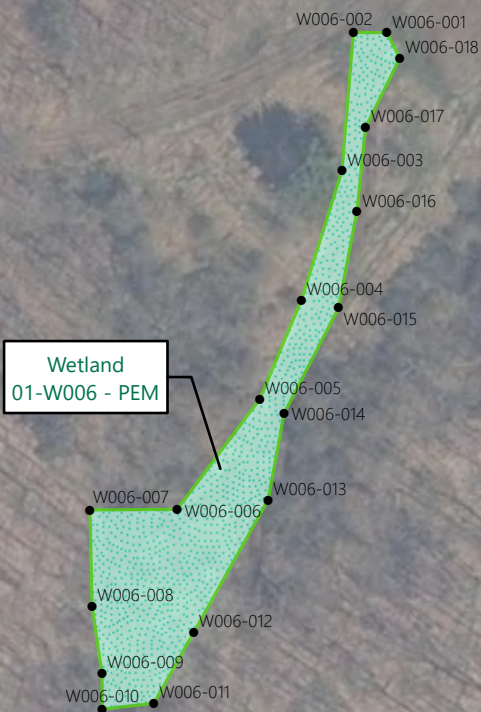


Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- Wetland Flag
- Delineated Wetland Non-Jurisdictional
- Study Area
- Parcel Boundary



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Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

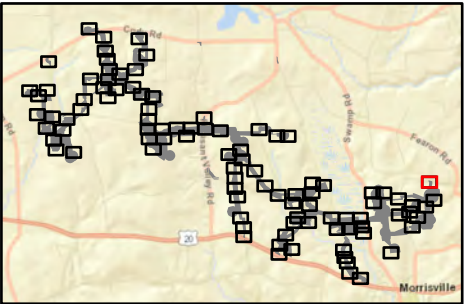


# Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson and Smithfield, Madison County, New York

## Wetland and Stream Delineation Report

- ▲ Stream Flag
- Wetland Flag
- Delineated Stream w/ Federal Jurisdictional
- Delineated Wetland w/ Federal Jurisdictional
- Study Area
- Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

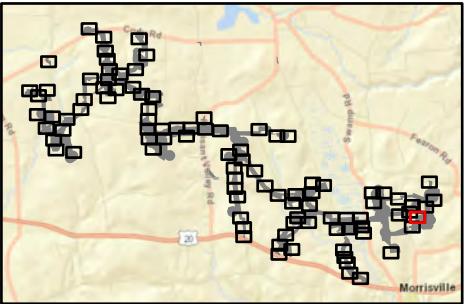


**Hoffman Falls Wind Project**

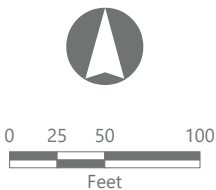
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- Wetland Flag
- ⊕ Datapoint Wetland
- - - Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▨ Delineated Wetland w/ State & Federal Jurisdictional
- ▭ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



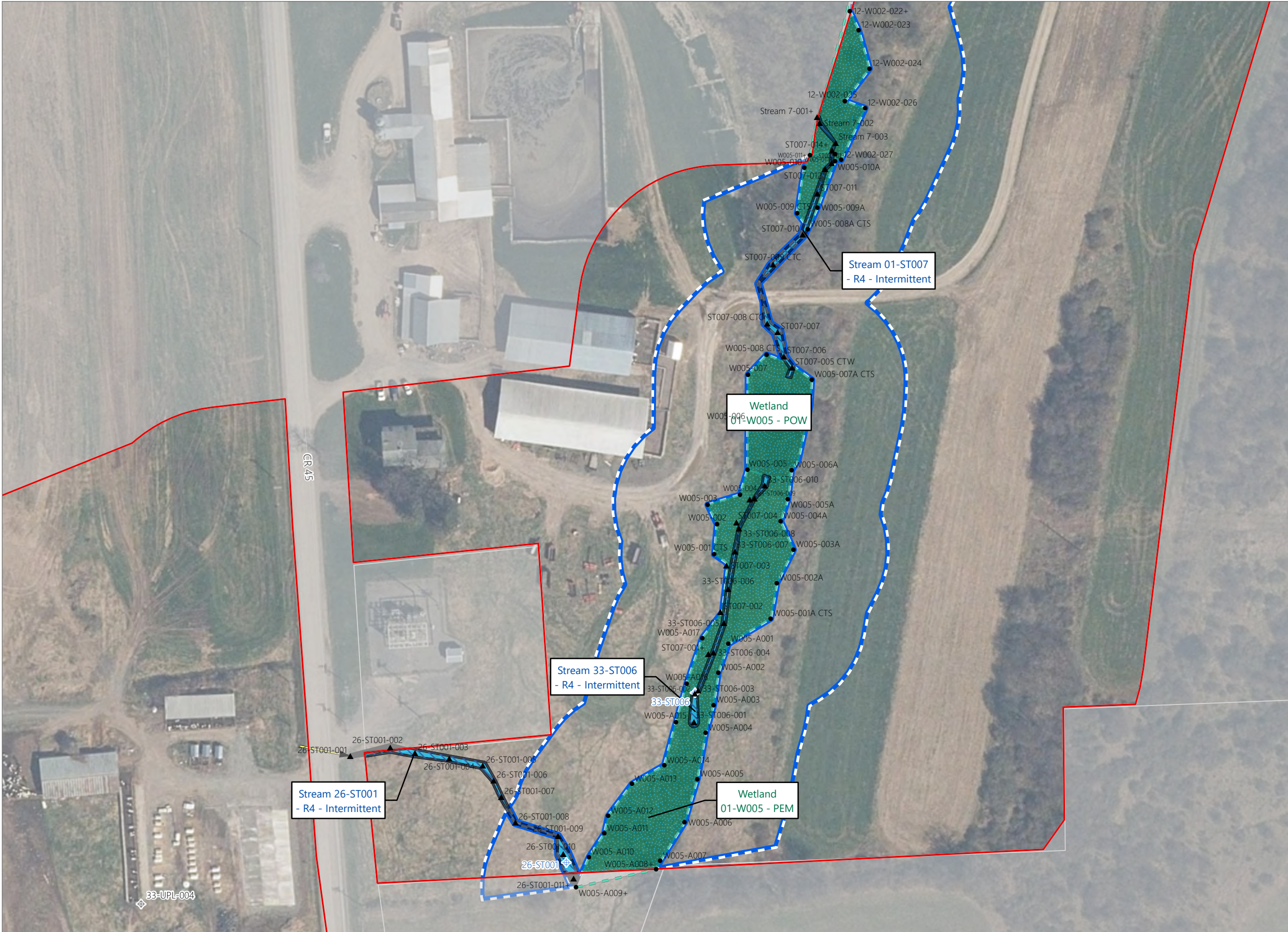
Sheet 95 of 98



Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

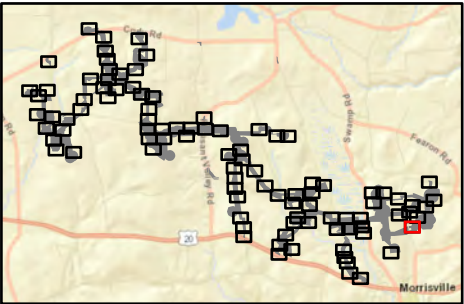


**Hoffman Falls Wind Project**

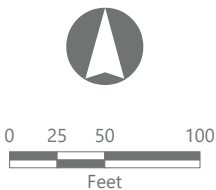
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- ▲ Stream Flag
- Wetland Flag
- ⛶ Datapoint Stream
- ⛶ Datapoint Wetland
- ➡ Culvert
- Wetland Continues
- ▬ NYSDEC-Regulated Adjacent Area
- ▬ Delineated Stream w/ Federal Jurisdictional
- ▬ Delineated Stream outside Study Area
- ▬ Delineated Wetland w/ State & Federal Jurisdictional
- ▬ Delineated Wetland outside Study Area
- ▬ Study Area
- ▬ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYS DOP "2022" orthoimagery map service



Figure 7. Delineated Wetlands and Streams

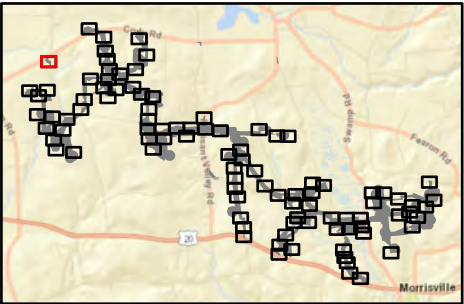


**Hoffman Falls Wind Project**

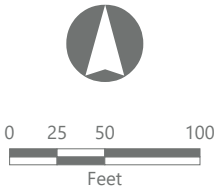
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

**Wetland and Stream  
Delineation Report**

- Wetland Flag
- ⊕ Datapoint Wetland
- Culvert
- Wetland Continues
- ▨ Delineated Wetland Non-Jurisdictional
- ▤ Delineated Wetland w/ Federal Jurisdictional
- ▭ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



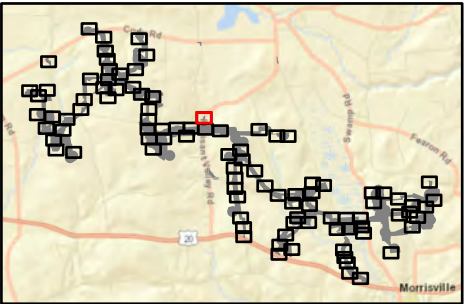
Figure 7. Delineated Wetlands and Streams

Hoffman Falls Wind Project

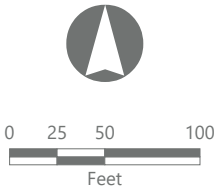
Towns of Eaton, Fenner, Nelson and  
Smithfield, Madison County,  
New York

Wetland and Stream  
Delineation Report

- ▲ Stream Flag
- Wetland Flag
- ⊕ Datapoint Stream
- ⊕ Datapoint Wetland
- Wetland Continues
- ▨ Delineated Stream w/ State & Federal Jurisdictional
- ▨ Delineated Stream outside Study Area
- ▨ Delineated Wetland w/ Federal Jurisdictional
- ▨ Delineated Wetland outside Study Area
- ▭ Study Area
- ▭ Parcel Boundary



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Prepared August 27, 2024  
Basemap: NYSDOP "2022" orthoimagery map service



## **Appendix B**

Routine Wetland Determination Data Sheets and OHWM Data Forms



# 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: 04/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-UPL-001  
 Investigator(s): RF JK Section, Township, Range: Fenner  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96454317 Long: -75.75275717 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 15 to 25 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-UPL-001

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	30	Yes		FACU
2. <i>Cornus sericea</i> / American dogwood	15	Yes		NI
3.				
4.				
5.				
6.				
7.				
	45	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	20	Yes		FACU
2. <i>Centaurea jacea</i> / Brownray knapweed	15	Yes		FACU
3. <i>Galium triflorum</i> / Sweet bedstraw, Sweet-scented bedstraw	10	Yes		FACU
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: 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	75	x 4 =	300
UPL species	15	x 5 =	75
Column Totals:	90	(A)	375 (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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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



## SOIL

Sampling Point: 05-UPL-001

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-UPL-002  
 Investigator(s): JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 40-45  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96482899 Long: -75.75110654 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:  
 Steeply sloping hillside adjacent to road- some hydric vegetation present however no other indications are present



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-UPL-002

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>			
1. <i>Cornus sericea</i> / American dogwood	40	Yes	NI
2. <i>Salix</i> / Willow	40	Yes	NI
3.			
4.			
5.			
6.			
7.			
	80	= Total Cover	
<b>Herb Stratum (Plot size: 5 Feet)</b>			
1. <i>Fragaria virginiana</i> / Mountain strawberry	20	Yes	FACU
2. <i>Carex</i> / Sedge	20	Yes	NI
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	= Total Cover	
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 10	x 2 = 20
FAC species 0	x 3 = 0
FACU species 20	x 4 = 80
UPL species 100	x 5 = 500
Column Totals: 130 (A)	600 (B)

Prevalence Index = B/A = 4.62

**Hydrophytic Vegetation Indicators:**

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

<sup>1</sup>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: 05-UPL-002

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
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☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)  
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☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-UPL-003  
 Investigator(s): JK, AT Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 40  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96504817 Long: -75.75170517 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-UPL-003

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: right; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td colspan="4">(Plot size: 30 Feet )</td> </tr> <tr><td>1. <i>Fraxinus pennsylvanica</i> / Green ash</td><td style="text-align: right;">60</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">60</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: right; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td colspan="4">(Plot size: 15 Feet )</td> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: right; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td colspan="4">(Plot size: 5 Feet )</td> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr><td>8. _____</td><td></td><td></td><td></td></tr> <tr><td>9. _____</td><td></td><td></td><td></td></tr> <tr><td>10. _____</td><td></td><td></td><td></td></tr> <tr><td>11. _____</td><td></td><td></td><td></td></tr> <tr><td>12. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: right; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td colspan="4">(Plot size: 30 Feet )</td> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	(Plot size: 30 Feet )				1. <i>Fraxinus pennsylvanica</i> / Green ash	60	Yes	FACW	2. _____				3. _____				4. _____				5. _____				6. _____				7. _____					60	= Total Cover		Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	(Plot size: 15 Feet )				1. _____				2. _____				3. _____				4. _____				5. _____				6. _____				7. _____					0	= Total Cover		Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	(Plot size: 5 Feet )				1. _____				2. _____				3. _____				4. _____				5. _____				6. _____				7. _____				8. _____				9. _____				10. _____				11. _____				12. _____					0	= Total Cover		Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	(Plot size: 30 Feet )				1. _____				2. _____				3. _____				4. _____					0	= Total Cover		<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">1 (A)</span></p> <p>Total Number of Dominant Species Across All Strata: <span style="float: right;">1 (B)</span></p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">100.0 (A/B)</span></p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Total % Cover of:</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiply by:</th> </tr> <tr> <td>OBL species <span style="float: right;">0</span></td> <td>x 1 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACW species <span style="float: right;">60</span></td> <td>x 2 = <span style="float: right;">120</span></td> </tr> <tr> <td>FAC species <span style="float: right;">0</span></td> <td>x 3 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACU species <span style="float: right;">0</span></td> <td>x 4 = <span style="float: right;">0</span></td> </tr> <tr> <td>UPL species <span style="float: right;">0</span></td> <td>x 5 = <span style="float: right;">0</span></td> </tr> <tr> <td>Column Totals: <span style="float: right;">60 (A)</span></td> <td><span style="float: right;">120 (B)</span></td> </tr> </table> <p style="text-align: center; margin-top: 10px;">Prevalence Index = B/A = <span style="float: right;">2.0</span></p> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input checked="" type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input checked="" type="checkbox"/> 3 - Prevalence Index ≤3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )</p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Vegetation Strata</b></p> <p><b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b>      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>	FACW species <span style="float: right;">60</span>	x 2 = <span style="float: right;">120</span>	FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>	FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>	UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>	Column Totals: <span style="float: right;">60 (A)</span>	<span style="float: right;">120 (B)</span>
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Remarks: (Explain alternative procedures here or in a separate report.)																																																																																																																																																																																							



## SOIL

Sampling Point: 05-UPL-003

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 04/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W001-1U  
 Investigator(s): RF JK Section, Township, Range: Fenner  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9655625 Long: -75.75138933 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W001-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer rubrum</i> / Red maple	30	Yes	FAC
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW
3. <i>Prunus serotina</i> / Black cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	20	Yes	FACU
2. <i>Amelanchier alnifolia</i> / Service berry	15	Yes	FACU
3. <i>Malus</i> / Apple	10	Yes	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	45	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Carex</i> / Sedge	40	Yes	NI
2. <i>Amelanchier alnifolia</i> / Service berry	10	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	50	= Total Cover	
<b>Woody Vine Stratum</b> (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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 20	x 2 = 40
FAC species 30	x 3 = 90
FACU species 55	x 4 = 220
UPL species 50	x 5 = 250
Column Totals: 155 (A)	600 (B)

Prevalence Index = B/A = 3.87

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W001-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 04/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W001-1W  
 Investigator(s): RF JK Section, Township, Range: Fenner  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96559933 Long: -75.75159233 Datum: WGS 1984  
 Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification: PSS1B

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>05-W001-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.) Directly adjacent to NYSDEC wetland and NWI wetland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>12</u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W001-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Fraxinus pennsylvanica</i> / Green ash	30	Yes	FACW	
2. <i>Acer rubrum</i> / Red maple	10	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. <i>Cornus sericea ssp. sericea</i> / Red osier dogwood	20	Yes	NI	
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Carex debilis var. rudgei</i> / White edge sedge	50	Yes	NI	
2. <i>Geum laciniatum</i> / Rough avens	5	No	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	55	= Total Cover		
<b>Woody Vine Stratum</b> (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 55	x 2 = 110
FAC species 10	x 3 = 30
FACU species 0	x 4 = 0
UPL species 70	x 5 = 350
Column Totals: 135	(A) 490 (B)

Prevalence Index = B/A = 3.63

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 X 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W001-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

<input type="checkbox"/>	Polyvalue Below Surface (S8) <b>(LRR R, MLRA 149B)</b>
<input type="checkbox"/>	Thin Dark Surface (S9) <b>(LRR R, MLRA 149B)</b>
<input type="checkbox"/>	Loamy Mucky Mineral (F1) <b>(LRR K, L)</b>
<input type="checkbox"/>	Loamy Gleyed Matrix (F2)
<input checked="" type="checkbox"/>	Depleted Matrix (F3)
<input checked="" type="checkbox"/>	Redox Dark Surface (F6)
<input type="checkbox"/>	Depleted Dark Surface (F7)
<input type="checkbox"/>	Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 04/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W001-2U  
 Investigator(s): RF JK Section, Township, Range: Fenner  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.965317 Long: -75.75245933 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W001-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. <i>Cornus sericea ssp. sericea</i> / Red osier dogwood	5	Yes		NI
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes		FACU
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	10	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Centaurea jacea</i> / Brownray knapweed	40	Yes		FACU
2. <i>Solidago</i> / Goldenrod	20	Yes		NI
3. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No		FACU
4. <i>Phalaris arundinacea</i> / Reed canary grass	5	No		FACW
5. <i>Euthamia graminifolia</i> / Flat-top goldentop	2	No		FAC
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	77	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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: 4 (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	5	x 2 =	10	
FAC species	2	x 3 =	6	
FACU species	55	x 4 =	220	
UPL species	25	x 5 =	125	
Column Totals:	87	(A)	361	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W001-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 04/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W001-2W  
 Investigator(s): RF JK Section, Township, Range: Fenner  
 Landform (hillslope, terrace, etc): Toeslope Local relief (concave, convex, none): concave Slope (%): 5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96546267 Long: -75.752489 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 8 to 15 percent slopes NWI classification: PSS1B

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>05-W001-2W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W001-2W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Cornus sericea ssp. sericea</i> / Red osier dogwood	50	Yes	NI	
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	20	Yes	FACU	
3. <i>Salix</i> / Willow	15	No	FAC	
4.				
5.				
6.				
7.				
	85	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Ranunculus acris</i> / Acrid buttercup	20	Yes	FAC	
2. <i>Carex</i> / Sedge	20	Yes	FAC	
3. <i>Symphotrichum novae-angliae</i> / New england american-ast	20	Yes	FACW	
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	No	FAC	
5. <i>Equisetum hyemale</i> / Scouringrush horsetail	10	No	FAC	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	85	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 35	x 2 = 70
FAC species 80	x 3 = 240
FACU species 20	x 4 = 80
UPL species 50	x 5 = 250
Column Totals: 185 (A)	640 (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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 05-W001-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W002-1U  
 Investigator(s): JK, KO 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: 42.96416103 Long: -75.74696296 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 15 to 25 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W002-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Malus</i> / Apple	40	Yes	NI
2. <i>Prunus serotina</i> / Black cherry	20	Yes	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	70	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	50	Yes	FAC
2. <i>Geum canadense</i> / White avens	20	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	70	= Total Cover	
<b>Woody Vine Stratum</b> (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 10	x 2 = 20
FAC species 70	x 3 = 210
FACU species 20	x 4 = 80
UPL species 70	x 5 = 350
Column Totals: 170 (A)	660 (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<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W002-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- \_\_\_\_\_ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W002-1W  
 Investigator(s): JK, KO Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 6-12  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96410253 Long: -75.74680982 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 15 to 25 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>05-W002-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W002-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Onoclea sensibilis</i> / Sensitive fern	60	Yes	FACW
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	20	Yes	FAC
3. <i>Aster</i> / <i>Aster</i>	10	No	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u>	(A) <u>250</u> (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<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W002-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 11

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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W003-1U  
 Investigator(s): RF JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 8-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.912849 Long: -75.68580583 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W003-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Tilia americana</i> / American basswood	20	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU	
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	45	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC	
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	15	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Dryopteris intermedia</i> / Evergreen wood fern	10	Yes	FAC	
2. <i>Fraxinus pennsylvanica</i> / Green ash	2	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	12	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 17	x 2 = 34
FAC species 20	x 3 = 60
FACU species 35	x 4 = 140
UPL species 0	x 5 = 0
Column Totals: 72 (A)	234 (B)

Prevalence Index = B/A = 3.25

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 X 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W003-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 8"



# 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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W003-1W  
 Investigator(s): RF JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 5-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91280733 Long: -75.6858805 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>05-W003-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W003-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	35	Yes	FACW
2. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	45	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Symphytichum prenanthoides</i> / Crooked-stem american-as	40	Yes	FAC
2. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
3. <i>Crataegus</i> / Hawthorn	10	No	NI
4. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	65	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 50	x 2 = 100
FAC species 70	x 3 = 210
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 130 (A)	360 (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<sup>1</sup> ☒ X

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W003-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/15/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W005-1U  
Investigator(s): JK, RF Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 8-12  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91050456 Long: -75.68644375 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Successional logged forest	

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 05-W005-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus americana</i> / White ash	40	Yes	FACU	
2. <i>Pinus strobus</i> / Eastern white pine	20	Yes	FACU	
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	70	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	30	Yes	FACU	
2. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC	
3. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	70	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Carex gracillima</i> / Graceful sedge	30	Yes	FACU	
2. <i>Fragaria virginiana</i> ssp. <i>glauca</i> / Virginia strawberry	20	Yes	NI	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	50	= Total Cover		
<b>Woody Vine Stratum</b> (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: 7 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 30	x 2 = 60
FAC species 20	x 3 = 60
FACU species 120	x 4 = 480
UPL species 20	x 5 = 100
Column Totals: 190 (A)	700 (B)

Prevalence Index = B/A = 3.68

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 05-W005-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W005-1W  
 Investigator(s): RF JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91053533 Long: -75.6866605 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>05-W005-1W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): <u>8</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W005-1W

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(7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 135	x 2 = 270	FAC species 10	x 3 = 30	FACU species 0	x 4 = 0	UPL species 5	x 5 = 25	Column Totals: 150 (A)	325 (B)
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## SOIL

Sampling Point: 05-W005-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:



# 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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W005-2U  
 Investigator(s): JK, 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: 42.91116659 Long: -75.68694985 Datum: WGS 1984  
 Soil Map Unit Name: Appleton 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W005-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fagus grandifolia</i> / American beech	30	Yes	FACU
2. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU
3. <i>Tsuga canadensis</i> / Eastern hemlock	20	Yes	FACU
4. <i>Betula alleghaniensis</i> / Yellow birch	15	No	FAC
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	85	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
2. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Hieracium</i> / Hawkweed	40	Yes	NI
2. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
3. <i>Carex gracillima</i> / Graceful sedge	20	Yes	FACU
4. <i>Onoclea sensibilis</i> / Sensitive fern	15	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95	= Total Cover	
<b>Woody Vine Stratum</b> (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: 8 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 12.5 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	25	x 3 =	75
FACU species	130	x 4 =	520
UPL species	40	x 5 =	200
Column Totals:	210	(A)	825 (B)

Prevalence Index = B/A = 3.93

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 05-W005-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W005-2W  
 Investigator(s): RF JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91095267 Long: -75.6869885 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>05-W005-2W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W005-2W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	30	Yes	FACW	
2. <i>Betula alleghaniensis</i> / Yellow birch	10	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rhamnus cathartica</i> / European buckthorn	25	Yes	FAC	
2. <i>Viburnum lentago</i> / Nanny-berry	15	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	40	Yes	FAC	
2. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes	FACW	
3. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC	
4. <i>Crataegus</i> / Hawthorn	5	No	NI	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	85	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. _____				
2. _____				
3. _____				
4. _____				
	0	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (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 60	x 2 = 120
FAC species 100	x 3 = 300
FACU species 0	x 4 = 0
UPL species 5	x 5 = 25
Column Totals: 165	(A) 445 (B)

Prevalence Index = B/A = 2.7

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 05-W005-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W006-1U  
 Investigator(s): JK, 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: 42.91105877 Long: -75.68653204 Datum: WGS 1984  
 Soil Map Unit Name: Appleton 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W006-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Tsuga canadensis</i> / Eastern hemlock	40	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	80	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	0	= Total Cover		
<b>Woody Vine Stratum</b> (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 0	x 3 = 0
FACU species 80	x 4 = 320
UPL species 0	x 5 = 0
Column Totals: 80 (A)	320 (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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 05-W006-1U

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 05-W006-1W  
 Investigator(s): RF JK 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: 42.9110395 Long: -75.68649 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>05-W006-1W PFO</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 05-W006-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	20	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
3. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	25	Yes	OBL
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
3. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	55	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (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 40	x 2 = 80
FAC species 0	x 3 = 0
FACU species 55	x 4 = 220
UPL species 0	x 5 = 0
Column Totals: 120 (A)	325 (B)

Prevalence Index = B/A = 2.71

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 05-W006-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-UPL-003  
 Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): none Slope (%): 15-20  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9179615 Long: -75.66980367 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 15 to 25 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-UPL-003

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Malus</i> / Apple	10	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Dactylis glomerata</i> / Orchardgrass	80	Yes	FACU
2. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
3. <i>Galium</i> / Bedstraw	10	No	FAC
4. <i>Anthoxanthum odoratum</i> / Sweet vernal grass	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1.			
2.			
3.			
4.			
	0	= Total Cover	

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

**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 20	x 3 = 60
FACU species 105	x 4 = 420
UPL species 10	x 5 = 50
Column Totals: 135 (A)	530 (B)

Prevalence Index = B/A = 3.93

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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



## SOIL

Sampling Point: 10-UPL-003

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/24/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W001-1U  
 Investigator(s): MA, AT Section, Township, Range: Eaton, NY  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.915782 Long: -75.66135217 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u></u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Surface Soil Cracks (B6)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Drainage Patterns (B10)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Moss Trim Lines (B16)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Dry-Season Water Table (C2)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Crayfish Burrows (C8)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Saturation Visible on Aerial Imagery (C9)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Geomorphic Position (D2)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Shallow Aquitard (D3)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> Microtopographic Relief (D4)
		<u></u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W001-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Stellaria</i> / Starwort	20	Yes	FACU
2. <i>Veronica serpyllifolia</i> / Thymeleaf speedwell	5	No	FAC
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 5	x 3 = 15
FACU species 25	x 4 = 100
UPL species 0	x 5 = 0
Column Totals: 30 (A)	115 (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<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W001-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/24/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W001-1W  
 Investigator(s): MA, AT Section, Township, Range: Eaton, NY  
 Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): none Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91573417 Long: -75.66134933 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 <u>X</u> No <u></u> Hydric Soil Present? Yes <u>X</u> No <u></u> Wetland Hydrology Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u>10-W001-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u>X</u> No <u></u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u></u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W001-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 5 Feet)			
1. <i>Typha</i> / Cattail	20	Yes	OBL
2. <i>Phalaris arundinacea</i> / Reed canary grass	10	Yes	FACW
3. <i>Impatiens capensis</i> / Spotted jewelweed	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	
(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	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	35	(A)	50 (B)

Prevalence Index = B/A = 1.43

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 10-W001-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/24/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W001-2U  
 Investigator(s): MA, AT Section, Township, Range: Morrisville, NY  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91510317 Long: -75.6598885 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W001-2U

<div style="display: flex; justify-content: space-between;"> <div> <b>Tree Stratum</b> (Plot size: 30 Feet)                 </div> <div style="text-align: right;"> <b>Absolute % Cover</b> </div> <div style="text-align: right;"> <b>Dominant Species?</b> </div> <div style="text-align: right;"> <b>Indicator Status</b> </div> </div> <div style="margin-top: 5px;">                     1. _____                      2. _____                      3. _____                      4. _____                      5. _____                      6. _____                      7. _____                 </div> <div style="display: flex; justify-content: flex-end; margin-top: 5px;"> <div style="border-bottom: 1px solid black; width: 100px; text-align: center;">0</div> <div>= Total Cover</div> </div>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">0 (A)</span>  Total Number of Dominant Species Across All Strata: <span style="float: right;">3 (B)</span>  Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">0.0 (A/B)</span>															
<div style="display: flex; justify-content: space-between;"> <div> <b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)                 </div> <div style="text-align: right;"> <b>Absolute % Cover</b> </div> <div style="text-align: right;"> <b>Dominant Species?</b> </div> <div style="text-align: right;"> <b>Indicator Status</b> </div> </div> <div style="margin-top: 5px;">                     1. _____                      2. _____                      3. _____                      4. _____                      5. _____                      6. _____                      7. _____                 </div> <div style="display: flex; justify-content: flex-end; margin-top: 5px;"> <div style="border-bottom: 1px solid black; width: 100px; text-align: center;">0</div> <div>= Total Cover</div> </div>				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <span style="float: right;">0</span></td> <td>x 1 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACW species <span style="float: right;">0</span></td> <td>x 2 = <span style="float: right;">0</span></td> </tr> <tr> <td>FAC species <span style="float: right;">0</span></td> <td>x 3 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACU species <span style="float: right;">100</span></td> <td>x 4 = <span style="float: right;">400</span></td> </tr> <tr> <td>UPL species <span style="float: right;">0</span></td> <td>x 5 = <span style="float: right;">0</span></td> </tr> <tr> <td>Column Totals: <span style="float: right;">100 (A)</span></td> <td><span style="float: right;">400 (B)</span></td> </tr> </table> <div style="margin-top: 10px;">                 Prevalence Index = B/A = <span style="float: right;">4.0</span> </div>		Total % Cover of:	Multiply by:	OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>	FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>	FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>	FACU species <span style="float: right;">100</span>	x 4 = <span style="float: right;">400</span>	UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>	Column Totals: <span style="float: right;">100 (A)</span>	<span style="float: right;">400 (B)</span>
Total % Cover of:	Multiply by:																		
OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>																		
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>																		
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>																		
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UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>																		
Column Totals: <span style="float: right;">100 (A)</span>	<span style="float: right;">400 (B)</span>																		
<div style="display: flex; justify-content: space-between;"> <div> <b>Herb Stratum</b> (Plot size: 5 Feet)                 </div> <div style="text-align: right;"> <b>Absolute % Cover</b> </div> <div style="text-align: right;"> <b>Dominant Species?</b> </div> <div style="text-align: right;"> <b>Indicator Status</b> </div> </div> <div style="margin-top: 5px;">                     1. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan <span style="float: right;">40</span>                      2. <i>Trifolium pratense</i> / Red clover <span style="float: right;">30</span>                      3. <i>Elymus repens</i> / Quack grass <span style="float: right;">30</span>                      4. _____                      5. _____                      6. _____                      7. _____                      8. _____                      9. _____                      10. _____                      11. _____                      12. _____                 </div> <div style="display: flex; justify-content: flex-end; margin-top: 5px;"> <div style="border-bottom: 1px solid black; width: 100px; text-align: center;">100</div> <div>= Total Cover</div> </div>				<b>Hydrophytic Vegetation Indicators:</b> <div style="margin-top: 5px;"> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation  <input type="checkbox"/> 2 - Dominance Test is &gt;50%  <input type="checkbox"/> 3 - Prevalence Index ≤3.0<sup>1</sup>  <input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )                 </div> <div style="margin-top: 10px; font-size: small;"> <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.                 </div>															
<div style="display: flex; justify-content: space-between;"> <div> <b>Woody Vine Stratum</b> (Plot size: 30 Feet)                 </div> <div style="text-align: right;"> <b>Absolute % Cover</b> </div> <div style="text-align: right;"> <b>Dominant Species?</b> </div> <div style="text-align: right;"> <b>Indicator Status</b> </div> </div> <div style="margin-top: 5px;">                     1. _____                      2. _____                      3. _____                      4. _____                 </div> <div style="display: flex; justify-content: flex-end; margin-top: 5px;"> <div style="border-bottom: 1px solid black; width: 100px; text-align: center;">0</div> <div>= Total Cover</div> </div>				<b>Definitions of Vegetation Strata</b>  <div style="margin-top: 5px; font-size: small;"> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                 </div>															
Remarks: (Explain alternative procedures here or in a separate report.)				<b>Hydrophytic Vegetation Present?</b> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Yes _____</span> <span>No <u>X</u> _____</span> </div>															



## SOIL

Sampling Point: 10-W001-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/24/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W001-2W  
 Investigator(s): MA, AT Section, Township, Range: Morrisville, NY  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91516117 Long: -75.65954533 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W001-2W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W001-2W

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## SOIL

Sampling Point: 10-W001-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W001-3U  
 Investigator(s): MA, KO Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91528433 Long: -75.6571065 Datum: WGS 1984  
 Soil Map Unit Name: HnD—Honeoye silt loam, 15 to 25 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Upland area adjacent to forested wetland</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W001-3U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Carpinus caroliniana</i> / American hornbeam	30	Yes	FAC
2. <i>Prunus serotina</i> / Black cherry	15	Yes	FACU
3. <i>Populus deltoides</i> / Eastern cottonwood	10	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Ageratina altissima</i> / White snakeroot	10	Yes	FACU
2. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	5	Yes	UPL
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	15	= Total Cover	
<b>Woody Vine Stratum</b> (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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (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 30	x 4 = 120
UPL species 5	x 5 = 25
Column Totals: 75 (A)	265 (B)

Prevalence Index = B/A = 3.53

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W001-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W001-3W  
 Investigator(s): MA, KO 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: 42.915303 Long: -75.65720067 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PFO4E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>10-W001</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>2</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W001-3W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Fraxinus pennsylvanica</i> / Green ash	25	Yes	FACW
2. <i>Tsuga canadensis</i> / Eastern hemlock	15	Yes	FACU
3. <i>Acer rubrum</i> / Red maple	15	Yes	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Symplocarpus foetidus</i> / Skunk-cabbage	20	Yes	OBL
2. <i>Glyceria</i> / Mannagrass	15	Yes	NI
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 20	x 1 = 20
FACW species 35	x 2 = 70
FAC species 15	x 3 = 45
FACU species 15	x 4 = 60
UPL species 15	x 5 = 75
Column Totals: 100 (A)	270 (B)

Prevalence Index = B/A = 2.7

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W001-3W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W002-1U  
 Investigator(s): MA, 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: 42.95963417 Long: -75.74584417 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W002-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU
2. <i>Acer rubrum</i> / Red maple	20	Yes	FAC
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Rubus</i> / Blackberry	25	Yes	FACU
2. <i>Dryopteris</i> / Woodfern	15	Yes	UPL
3. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	5	No	FAC
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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	25	x 3 =	75	
FACU species	65	x 4 =	260	
UPL species	15	x 5 =	75	
Column Totals:	105	(A)	410	(B)

Prevalence Index = B/A = 3.9

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W002-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 after 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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W002-1W  
 Investigator(s): MA, 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 (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9597115 Long: -75.74571267 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 \_\_\_\_\_  
 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: 10-W002-1W

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

## HYDROLOGY

### Wetland Hydrology Indicators:

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

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

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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (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: 10-W002-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Acer rubrum</i> / Red maple	20	Yes	FAC	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW	
2. <i>Glyceria</i> / Mannagrass	10	No	FACW	
3. <i>Impatiens capensis</i> / Spotted jewelweed	5	No	FACW	
4. <i>Athyrium angustum</i> / Northern lady fern	5	No	FAC	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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 65	x 2 = 130
FAC species 25	x 3 = 75
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 90 (A)	205 (B)

Prevalence Index = B/A = 2.28

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 10-W002-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W003-1U  
 Investigator(s): MA, 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 (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96289917 Long: -75.74760267 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 \_\_\_\_\_, 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W003-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Picea rubens</i> / Red spruce	10	Yes	FACU
2. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU
3. <i>Picea abies</i> / Norway spruce	5	No	NI
4. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW
5. <i>Pinus strobus</i> / Eastern white pine	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	35	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	30	Yes	FAC
2. <i>Alliaria petiolata</i> / Garlic-mustard	15	Yes	FACU
3. <i>Rubus</i> / Blackberry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	55	= Total Cover	
<b>Woody Vine Stratum</b> (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 5	x 2 = 10
FAC species 30	x 3 = 90
FACU species 50	x 4 = 200
UPL species 5	x 5 = 25
Column Totals: 90 (A)	325 (B)

Prevalence Index = B/A = 3.61

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W003-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/25/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W003-1W  
 Investigator(s): MA, 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: 42.96304117 Long: -75.74768217 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 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W003-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is maintained along atv trail	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W003-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
(Plot size: 15 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
(Plot size: 5 Feet)				
1. <i>Ranunculus repens</i> / Crowfoot, Creeping buttercup	60	Yes		FAC
2. <i>Anthoxanthum odoratum</i> / Sweet vernal grass	25	Yes		FACU
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	No		FACW
4. <i>Carex crinita</i> / Fringed sedge	5	No		OBL
5. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No		OBL
6. <i>Trifolium pratense</i> / Red clover	5	No		FACU
7. <i>Ranunculus acris</i> / Acrid buttercup	5	No		FAC
8.				
9.				
10.				
11.				
12.				
	115	= Total Cover		
(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	10	x 1 =	10
FACW species	10	x 2 =	20
FAC species	65	x 3 =	195
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	115	(A)	345 (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 10-W003-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/12/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W004-1U  
Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 3-8  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91621967 Long: -75.66910583 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 10-W004-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Zea mays</i> / Corn	10	Yes	NI	
2. <i>Medicago sativa</i> / Alfalfa	10	Yes	UPL	
3. <i>Cirsium vulgare</i> / Bullthistle, Bull thistle	5	No	FACU	
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	2	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	27	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 3 =	0
FACU species	7	x 4 =	28
UPL species	20	x 5 =	100
Column Totals:	27	(A)	128 (B)

Prevalence Index = B/A = 4.74

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 10-W004-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W004-1W  
 Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9164125 Long: -75.66872733 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): <u>.5</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): <u>0</u> Saturation Present? Yes _____ No <u>X</u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <div style="margin-left: 40px;">Surface water likely the result of recent rain</div>		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W004-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Carex</i> / Sedge	30	Yes	FACW
2. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	40	(A)	70 (B)

Prevalence Index = B/A = 1.75

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 10-W004-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W004-2U  
 Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91725417 Long: -75.6685545 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> 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? 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: 10-W004-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Pinus strobus</i> / Eastern white pine	50	Yes	FACU
2. <i>Acer rubrum</i> / Red maple	15	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Rhamnus cathartica</i> / European buckthorn	60	Yes	FAC
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Rubus</i> / Blackberry	40	Yes	FAC
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	No	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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	5	x 2 =	10		
FAC species	115	x 3 =	345		
FACU species	55	x 4 =	220		
UPL species	0	x 5 =	0		
Column Totals:	175	(A)	575	(B)	

Prevalence Index = B/A = 3.29

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W004-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root refusal at 2 inches



Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/12/2023				
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	10-W004-2W			
Investigator(s):	RN MA		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:	42.91721033		Long:	-75.66839483		Datum:	WGS 1984	
Soil Map Unit Name:	Wayland soils complex, 0 to 3 percent slopes, frequently flooded					NWI classification:	PUBHh				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <u>  X  </u> No <u>      </u> (If no, explain in Remarks.)											
Are Vegetation <u>      </u> , Soil <u>      </u> , or Hydrology <u>      </u> significantly disturbed?					Are "Normal Circumstances" present?    Yes <u>  X  </u> No <u>      </u>						
Are Vegetation <u>      </u> , Soil <u>      </u> , or Hydrology <u>      </u> naturally problematic?					(If needed, explain any answers in Remarks.)						

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)		
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
		Secondary Indicators (minimum of two required)	
		<input type="checkbox"/> Surface Soil Cracks (B6)	
		<input type="checkbox"/> Drainage Patterns (B10)	
		<input type="checkbox"/> Moss Trim Lines (B16)	
		<input type="checkbox"/> Dry-Season Water Table (C2)	
		<input type="checkbox"/> Crayfish Burrows (C8)	
		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
		<input type="checkbox"/> Geomorphic Position (D2)	
		<input type="checkbox"/> Shallow Aquitard (D3)	
		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <input type="text" value="0.5"/> Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <input type="text" value="0"/> Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <input type="text" value="0"/> (includes capillary fringe)			
<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W004-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Salix</i> / Willow	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Salix</i> / Willow	35	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	35	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Typha</i> / Cattail	30	Yes	OBL
2. <i>Impatiens capensis</i> / Spotted jewelweed	25	Yes	FACW
3. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	25	Yes	FACW
4. <i>Acorus americanus</i> / Several-vein sweetflag	20	No	OBL
5. <i>Eutrochium maculatum</i> / Spotted trumpetweed	10	No	OBL
6. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	
<b>Woody Vine Stratum</b> (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	60	x 1 =	60	
FACW species	50	x 2 =	100	
FAC species	55	x 3 =	165	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	165	(A)	325	(B)

Prevalence Index = B/A = 1.97

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 10-W004-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W004-3W  
 Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9167755 Long: -75.66861667 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>3</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W004-3W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Thuja occidentalis</i> / Eastern arborvitae	55	Yes	FACW
2. <i>Betula alleghaniensis</i> / Yellow birch	10	No	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	70	Yes	FACW
2. <i>Impatiens capensis</i> / Spotted jewelweed	40	Yes	FACW
3. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
4. <i>Geum laciniatum</i> / Rough avens	5	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	125	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 185	x 2 = 370
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 205 (A)	430 (B)

Prevalence Index = B/A = 2.1

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W004-3W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W005-1U  
 Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91621967 Long: -75.66910583 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Medicago sativa</i> / Alfalfa	10	Yes	UPL
2. <i>Zea mays</i> / Corn	10	Yes	NI
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	2	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	22	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	0	x 3 =	0	
FACU species	2	x 4 =	8	
UPL species	20	x 5 =	100	
Column Totals:	22	(A)	108	(B)

Prevalence Index = B/A = 4.91

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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



## SOIL

Sampling Point: 10-W005-1U

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

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

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W005-1W  
 Investigator(s): RN MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9161845 Long: -75.66921417 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>0.5</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <div style="margin-left: 40px;">Surface water likely the result of recent rain</div>		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W005-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Typha</i> / Cattail	10	Yes		OBL
2. <i>Carex</i> / Sedge	10	Yes		FACW
3. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	Yes		OBL
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	30	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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 <span style="float: right;">20</span>	x 1 = <span style="float: right;">20</span>
FACW species <span style="float: right;">10</span>	x 2 = <span style="float: right;">20</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">30 (A)</span>	<span style="float: right;">40 (B)</span>

Prevalence Index = B/A = 1.33

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W005-1W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 4/1	95	10YR 3/6	5	C	M,PL	Clay	
10-18	10YR 3/2	85	10YR 4/6	10	C	M	Clay	
10-18			10YR 2/2	5	C	M	Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:



# 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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W006-1U  
 Investigator(s): MA, RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Slope Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.920774 Long: -75.67597233 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland forest	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W006-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	35	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	30	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	15	Yes	FACU	
2. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	5	Yes	NI	
3. <i>Tilia americana</i> / American basswood	5	Yes	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	25	= Total Cover		
<b>Woody Vine Stratum</b> (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 15	x 2 = 30
FAC species 0	x 3 = 0
FACU species 70	x 4 = 280
UPL species 5	x 5 = 25
Column Totals: 90 (A)	335 (B)

Prevalence Index = B/A = 3.72

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 10-W006-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W006-1W  
 Investigator(s): RF, MA, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.920831 Long: -75.67580883 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W006-1W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W006-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
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. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	40	Yes	FAC	
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
3. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW	
4. <i>Fragaria</i> / Strawberry	5	No	NI	
5. <i>Solidago gigantea</i> / Smooth goldenrod	5	No	FACW	
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: 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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>80</u> (A)	<u>215</u> (B)

Prevalence Index = B/A = 2.69

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W006-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W007-1U  
 Investigator(s): MA, 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 (%): 3-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.917009 Long: -75.68212667 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland forested hillslope along old logging road.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W007-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU	
2. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	50	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rubus</i> / Blackberry	15	Yes	NI	
2. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Solidago canadensis</i> / Canada goldenrod	50	Yes	FACU	
2. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC	
3. <i>Tussilago farfara</i> / Colt's-foot	10	No	FACU	
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	75	= Total Cover		
<b>Woody Vine Stratum</b> (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 5	x 2 = 10
FAC species 10	x 3 = 30
FACU species 120	x 4 = 480
UPL species 15	x 5 = 75
Column Totals: 150 (A)	595 (B)

Prevalence Index = B/A = 3.97

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W007-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 8"

# 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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W007-1W  
 Investigator(s): RF, MA, AT 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: 42.91710917 Long: -75.6820425 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1A

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>10-W007-1W</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W007-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Scirpus atrovirens</i> / Green bulrush	30	Yes	OBL
2. <i>Solidago gigantea</i> / Smooth goldenrod	25	Yes	FACW
3. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	15	No	OBL
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW
5. <i>Carex comosa</i> / Bristly sedge, Bristly sedge	2	No	OBL
6. <i>Typha latifolia</i> / Broadleaf cattail, Broad-leaved cattail	2	No	OBL
7. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	2	No	OBL
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	81	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	51	x 1 =	51	
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:	81	(A)	111	(B)

Prevalence Index = B/A = 1.37

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 10-W007-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W008-1U  
 Investigator(s): MA, 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 (%): 3-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91649 Long: -75.67699583 Datum: WGS 1984  
 Soil Map Unit Name: Hamlin 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W008-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI	
2. <i>Fraxinus americana</i> / White ash	10	Yes	FACU	
3.				
4.				
5.				
6.				
7.				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. <i>Fraxinus americana</i> / White ash	5	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	40	Yes	FACU	
2. <i>Hesperis matronalis</i> / Dame's rocket	35	Yes	FACU	
3. <i>Solidago gigantea</i> / Smooth goldenrod	20	No	FACW	
4. <i>Carex gracillima</i> / Graceful sedge	10	No	FACU	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	105	= Total Cover		
<b>Woody Vine Stratum</b> (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	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	30	x 5 =	150
Column Totals:	150	(A)	590 (B)

Prevalence Index = B/A = 3.93

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W008-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5 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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W008-1W  
 Investigator(s): JK, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91631267 Long: -75.67688867 Datum: WGS 1984  
 Soil Map Unit Name: Hamlin silt loam NWI classification: PSS1A

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>10-W008-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W008-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Crataegus</i> / Hawthorn	40	Yes	NI	
2. <i>Fraxinus pennsylvanica</i> / Green ash	30	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	70	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rhamnus cathartica</i> / European buckthorn	30	Yes	FAC	
2. <i>Crataegus</i> / Hawthorn	15	Yes	NI	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	45	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Solidago gigantea</i> / Smooth goldenrod	50	Yes	FACW	
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	30	Yes	FACW	
3. <i>Geum laciniatum</i> / Rough avens	10	No	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	90	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 120	x 2 = 240
FAC species 30	x 3 = 90
FACU species 0	x 4 = 0
UPL species 55	x 5 = 275
Column Totals: 205 (A)	605 (B)

Prevalence Index = B/A = 2.95

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W008-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W008-2U  
 Investigator(s): MA, RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Step Local relief (concave, convex, none): concave Slope (%): 0-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91633 Long: -75.6780515 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W008-2U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Crataegus</i> / Hawthorn	15	Yes	FACU	
2. <i>Carpinus caroliniana</i> / American hornbeam	10	Yes	FAC	
3. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU	
4. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	45	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	20	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	20	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Geum canadense</i> / White avens	10	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	20	= Total Cover		
<b>Woody Vine Stratum</b> (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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9 (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 55	x 4 = 220
UPL species 0	x 5 = 0
Column Totals: 85 (A)	300 (B)

Prevalence Index = B/A = 3.53

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W008-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W008-2W  
 Investigator(s): MA RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.916322 Long: -75.677864 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1A

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>10-W008-2W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W008-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Solidago gigantea</i> / Smooth goldenrod	40	Yes	FACW
2. <i>Galium palustre</i> / Common marsh bedstraw	15	Yes	OBL
3. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW
4. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC
5. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU
6. <i>Clematis virginiana</i> / Devil's-darning-needles	5	No	FAC
7. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 50	x 2 = 100
FAC species 20	x 3 = 60
FACU species 5	x 4 = 20
UPL species 0	x 5 = 0
Column Totals: 90 (A)	195 (B)

Prevalence Index = B/A = 2.17

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W008-2W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/1	95	10YR 3/6	5	C	M	Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:



# 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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W008-3U  
 Investigator(s): MA 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 (%): 5-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91631633 Long: -75.68036083 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 25 to 50 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W008-3U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1. <i>Acer saccharum</i> / Sugar maple</td> <td style="text-align: center;">45</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2. <i>Fraxinus pennsylvanica</i> / Green ash</td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FACW</td> </tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">50</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum (Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1. <i>Rubus allegheniensis</i> / Allegheny blackberry</td> <td style="text-align: center;">50</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2. <i>Crataegus</i> / Hawthorn</td> <td style="text-align: center;">10</td> <td style="text-align: center;">No</td> <td style="text-align: center;">NI</td> </tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">60</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum (Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1. <i>Rubus allegheniensis</i> / Allegheny blackberry</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2. <i>Fraxinus pennsylvanica</i> / Green ash</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACW</td> </tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">25</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table>	Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 10-W008-3U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/14/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W008-3W  
Investigator(s): MA RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): none Slope (%): 0-3  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91639117 Long: -75.68029733 Datum: WGS 1984  
Soil Map Unit Name: Honeoye silt loam, 25 to 50 percent slopes NWI classification: PSS1A

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: 10-W008-3W

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

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): 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: 10-W008-3W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1. <i>Alnus incana</i> / Gray alder	45	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	45	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1. <i>Caltha palustris</i> / Yellow marsh marigold	35	Yes	OBL	
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	25	Yes	FACW	
3. <i>Symphytotrichum novae-angliae</i> / New england american-ast	15	No	FACW	
4. <i>Chelone glabra</i> / White turtlehead	10	No	OBL	
5. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW	
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 <u>45</u>	x 1 = <u>45</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>140</u>	(A) <u>235</u> (B)

Prevalence Index = B/A = 1.68

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W008-3W

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

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

### Hydric Soil Indicators:

X	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)**  
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☐ 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)

<sup>3</sup>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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W009-1U  
 Investigator(s): MA RF 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 (%): 10-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9178015 Long: -75.68027583 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W009-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW
3. <i>Crataegus</i> / Hawthorn	15	Yes	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Malus</i> / Apple	10	Yes	NI
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Alliaria petiolata</i> / Garlic-mustard	20	Yes	FACU
2. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC
3. <i>Viburnum lentago</i> / Nanny-berry	10	Yes	FAC
4. <i>Acer rubrum</i> / Red maple	5	No	FAC
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	50	= Total Cover	
<b>Woody Vine Stratum</b> (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: 7 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 57.1 (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 20	x 4 = 80
UPL species 25	x 5 = 125
Column Totals: 115 (A)	395 (B)

Prevalence Index = B/A = 3.43

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W009-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W009-1W  
 Investigator(s): MA RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Toeslope Local relief (concave, convex, none): concave Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91773033 Long: -75.6803645 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W009-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W009-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI	
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW	
3.				
4.				
5.				
6.				
7.				
	50	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1. <i>Impatiens capensis</i> / Spotted jewelweed	20	Yes	FACW	
2. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	20	Yes	FAC	
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes	FAC	
4. <i>Symplocarpus foetidus</i> / Skunk-cabbage	10	No	OBL	
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: 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 10	x 1 = 10
FACW species 40	x 2 = 80
FAC species 35	x 3 = 105
FACU species 0	x 4 = 0
UPL species 30	x 5 = 150
Column Totals: 115 (A)	345 (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W009-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/14/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W009-2U  
 Investigator(s): JK, 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 (%): 3-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91739533 Long: -75.6806055 Datum: WGS 1984  
 Soil Map Unit Name: Hamlin 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W009-2U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Prunus serotina</i> / Black cherry	20	Yes	FACU	
2. <i>Crataegus</i> / Hawthorn	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI	
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU	
3. <i>Berberis vulgaris</i> / Common barberry	10	Yes	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
	50	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	20	Yes	FACU	
2. <i>Carex gracillima</i> / Graceful sedge	15	Yes	FACU	
3. <i>Fragaria virginiana</i> / Mountain strawberry	15	Yes	FACU	
4. <i>Clinopodium vulgare</i> / Wild basil	5	No	NI	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	55	= Total Cover		
<b>Woody Vine Stratum</b> (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: 8 (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 35	x 5 = 175
Column Totals: 135 (A)	575 (B)

Prevalence Index = B/A = 4.26

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W009-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/14/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W009-2W  
Investigator(s): AT, JK 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: 42.91731383 Long: -75.68053433 Datum: WGS 1984  
Soil Map Unit Name: Hamlin 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: 10-W009-2W

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

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)  
\_\_\_\_ 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 X No \_\_\_\_\_

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W009-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. <i>Crataegus</i> / Hawthorn	15	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Caltha palustris</i> / Yellow marsh marigold	20	Yes	OBL
2. <i>Solidago canadensis</i> / Canada goldenrod	20	Yes	FACU
3. <i>Galium aparine</i> / Cleavers, Goose grass	20	Yes	FACU
4. <i>Symplocarpus foetidus</i> / Skunk-cabbage	20	Yes	OBL
5. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 40	x 1 = 40
FACW species 10	x 2 = 20
FAC species 0	x 3 = 0
FACU species 40	x 4 = 160
UPL species 15	x 5 = 75
Column Totals: 105	(A) 295 (B)

Prevalence Index = B/A = 2.81

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W009-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W010-1U  
 Investigator(s): MA, 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 (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9158965 Long: -75.678389 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
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? 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: 10-W010-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Acer saccharum</i> / Sugar maple	30	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Dryopteris</i> / Woodfern	15	Yes	NI	
2. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	10	Yes	FAC	
3. <i>Carex gracillima</i> / Graceful sedge	5	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	30	= Total Cover		
<b>Woody Vine Stratum</b> (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 45	x 4 = 180
UPL species 15	x 5 = 75
Column Totals: 70 (A)	285 (B)

Prevalence Index = B/A = 4.07

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W010-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 15 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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W010-1W  
 Investigator(s): MA, 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 (%): 0-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91595267 Long: -75.67833433 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W010-1W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W010-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC
2. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU
3. <i>Carpinus caroliniana</i> / American hornbeam	10	Yes	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	40	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Impatiens capensis</i> / Spotted jewelweed	35	Yes	FACW
2. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	15	Yes	OBL
3. <i>Athyrium angustum</i> / Northern lady fern	10	No	FAC
4. <i>Packera aurea</i> / Golden groundsel	10	No	FACW
5. <i>Alliaria petiolata</i> / Garlic-mustard	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	75	= Total Cover	
<b>Woody Vine Stratum</b> (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 15	x 1 = 15
FACW species 45	x 2 = 90
FAC species 35	x 3 = 105
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 115 (A)	290 (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<sup>1</sup> ☒ X

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W010-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W011-1U  
 Investigator(s): MA, 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: 42.91648967 Long: -75.681035 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W011-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU
2. <i>Carpinus caroliniana</i> / American hornbeam	10	No	FAC
3. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Crataegus</i> / Hawthorn	15	Yes	NI
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Dryopteris</i> / Woodfern	20	Yes	FACU
2. <i>Rubus allegheniensis</i> / Allegheny blackberry	10	Yes	FACU
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	35	= Total Cover	
<b>Woody Vine Stratum</b> (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: 4 (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 80	x 4 = 320
UPL species 15	x 5 = 75
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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W011-1U

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
-----------------------------	-----	----	---

Remarks:

Root refusal at 5 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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W011-1W  
 Investigator(s): MA, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.916552 Long: -75.68114917 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1A

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>10-W011-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W011-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Symphyotrichum</i> / Aster	30	Yes	FAC	
2. <i>Impatiens capensis</i> / Spotted jewelweed	15	Yes	FACW	
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
4. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	10	No	OBL	
5. <i>Caltha palustris</i> / Yellow marsh marigold	5	No	OBL	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	70	= Total Cover		
<b>Woody Vine Stratum</b> (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 25	x 2 =	50
FAC species 40	x 3 =	120
FACU species 0	x 4 =	0
UPL species 0	x 5 =	0
Column Totals: 80	(A)	185 (B)

Prevalence Index = B/A = 2.31

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W011-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W012-1U  
 Investigator(s): MA, 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 (%): 0-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91628283 Long: -75.68168117 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 25 to 50 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W012-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU
2. <i>Fraxinus americana</i> / White ash	15	Yes	FACU
3. <i>Prunus serotina</i> / Black cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Crataegus</i> / Hawthorn	15	Yes	NI
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	15	Yes	NI
2. <i>Alliaria petiolata</i> / Garlic-mustard	15	Yes	FACU
3. <i>Dryopteris</i> / Woodfern	15	Yes	FACU
4. <i>Rubus allegheniensis</i> / Allegheny blackberry	10	No	FACU
5. <i>Fragaria virginiana</i> / Mountain strawberry	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	65	= Total Cover	
<b>Woody Vine Stratum</b> (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 115	x 4 = 460
UPL species 30	x 5 = 150
Column Totals: 145 (A)	610 (B)

Prevalence Index = B/A = 4.21

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W012-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W012-1W  
 Investigator(s): MA, 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: 42.91632867 Long: -75.68168883 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 25 to 50 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W012-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W012-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
2. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	15	Yes	OBL	
3. <i>Impatiens capensis</i> / Spotted jewelweed	15	Yes	FACW	
4. <i>Hesperis matronalis</i> / Dame's rocket	10	No	FACU	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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 15	x 1 = 15
FACW species 35	x 2 = 70
FAC species 0	x 3 = 0
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 70 (A)	165 (B)

Prevalence Index = B/A = 2.36

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W012-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W013-1U  
 Investigator(s): MA, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): convex Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91433733 Long: -75.684701 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W013-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Solidago canadensis</i> / Canada goldenrod	20	Yes	FACU	
2. <i>Dactylis glomerata</i> / Orchardgrass	15	Yes	FACU	
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes	FAC	
4. <i>Leucanthemum vulgare</i> / Oxe eye daisy, Ox-eye daisy	5	No	UPL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	55	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">15</span>	x 3 = <span style="float: right;">45</span>
FACU species <span style="float: right;">35</span>	x 4 = <span style="float: right;">140</span>
UPL species <span style="float: right;">5</span>	x 5 = <span style="float: right;">25</span>
Column Totals: <span style="float: right;">55 (A)</span>	<span style="float: right;">210 (B)</span>

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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W013-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W013-1W  
 Investigator(s): MA, 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: 42.91419533 Long: -75.68467233 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W013-1W</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W013-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1. <i>Viburnum lentago</i> / Nanny-berry	10	Yes	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW	
2. <i>Phalaris arundinacea</i> / Reed canary grass	30	Yes	FACW	
3. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC	
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
5. <i>Galium palustre</i> / Common marsh bedstraw	5	No	OBL	
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 <u>5</u>	x 1 = <u>5</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u>	(A) <u>235</u> (B)

Prevalence Index = B/A = 2.24

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W013-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W013-2U  
 Investigator(s): MA 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 (%):   
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91371583 Long: -75.68549633 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u></u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Surface Soil Cracks (B6)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Drainage Patterns (B10)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Moss Trim Lines (B16)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Dry-Season Water Table (C2)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Crayfish Burrows (C8)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Saturation Visible on Aerial Imagery (C9)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Geomorphic Position (D2)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Shallow Aquitard (D3)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> Microtopographic Relief (D4)
		<u></u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W013-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	35	Yes	FACU
2. <i>Tilia americana</i> / American basswood	20	Yes	FACU
3. <i>Prunus serotina</i> / Black cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	40	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
2. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU
3. <i>Geum canadense</i> / White avens	5	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	30	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (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 25	x 2 = 50
FAC species 5	x 3 = 15
FACU species 75	x 4 = 300
UPL species 30	x 5 = 150
Column Totals: 135 (A)	515 (B)

Prevalence Index = B/A = 3.81

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 10-W013-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W013-2W  
 Investigator(s): MA RF 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9138115 Long: -75.68539 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W013-2W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W013-2W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Populus tremuloides</i> / Quaking aspen	30	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	45	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rhamnus cathartica</i> / European buckthorn	50	Yes	FAC	
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	15	Yes	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	65	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Symphytichum prenanthoides</i> / Crooked-stem american-as	50	Yes	FAC	
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
3. <i>Hylotelephium</i> / Stonecrop	5	No	NI	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	75	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 35	x 2 = 70
FAC species 100	x 3 = 300
FACU species 45	x 4 = 180
UPL species 5	x 5 = 25
Column Totals: 185 (A)	575 (B)

Prevalence Index = B/A = 3.11

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W013-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W013-3U  
 Investigator(s): RS RN 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: 42.91244 Long: -75.68409417 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Active agriculture field dominated by oats and lacks hydric soils.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W013-3U

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Avena sativa</i> / Wild oat, Cultivated oat	90	Yes	UPL	
2. <i>Apocynum cannabinum</i> / Indian hemp	5	No	FAC	
3. <i>Setaria pumila</i> / Yellow bristlegrass	5	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	100	= Total Cover		

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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 <span style="float: right;">0</span>	x 1 =	0
FACW species <span style="float: right;">0</span>	x 2 =	0
FAC species <span style="float: right;">10</span>	x 3 =	30
FACU species <span style="float: right;">0</span>	x 4 =	0
UPL species <span style="float: right;">90</span>	x 5 =	450
Column Totals: <span style="float: right;">100</span>	(A)	480 (B)

Prevalence Index = B/A = 4.8

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 10-W013-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W013-3W  
 Investigator(s): RS RN 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: 42.91243333 Long: -75.6842215 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W013-3W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland extends into ag field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W013-3W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
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. <i>Apocynum cannabinum</i> / Indian hemp	20	Yes		FAC
2. <i>Setaria pumila</i> / Yellow bristlegrass	20	Yes		FAC
3. <i>Ambrosia artemisiifolia</i> / Annual ragweed, Common ragweec	10	No		FACU
4. <i>Phalaris arundinacea</i> / Reed canary grass	5	No		FACW
5. <i>Carex scoparia</i> / Pointed broom sedge	5	No		FACW
6. <i>Avena sativa</i> / Wild oat, Cultivated oat	3	No		UPL
7. <i>Oxalis corniculata</i> / Creeping wood sorrel	2	No		FACU
8. <i>Galium</i> / Bedstraw	2	No		NI
9.				
10.				
11.				
12.				
	67	= 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	10	x 2 =	20
FAC species	40	x 3 =	120
FACU species	12	x 4 =	48
UPL species	5	x 5 =	25
Column Totals:	67	(A)	213 (B)

Prevalence Index = B/A = 3.18

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W013-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W014-1U  
 Investigator(s): RF MA 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90977417 Long: -75.68631533 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W014-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus americana</i> / White ash	30	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	25	Yes	FACW
3. <i>Prunus pensylvanica</i> / Pin cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago canadensis</i> / Canada goldenrod	30	Yes	FACU
2. <i>Fragaria virginiana</i> / Mountain strawberry	25	Yes	FACU
3. <i>Crataegus</i> / Hawthorn	15	No	NI
4. <i>Geum canadense</i> / White avens	10	No	FAC
5. <i>Dactylis glomerata</i> / Orchardgrass	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
  
 Total Number of Dominant Species Across All Strata: 6 (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 25	x 2 = 50
FAC species 25	x 3 = 75
FACU species 120	x 4 = 480
UPL species 15	x 5 = 75
Column Totals: 185 (A)	680 (B)

Prevalence Index = B/A = 3.68

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 10-W014-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W014-1W  
 Investigator(s): RF MA AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): terrace Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90970183 Long: -75.6863555 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W014-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W014-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	50	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC
2. <i>Crataegus</i> / Hawthorn	10	Yes	NI
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	50	Yes	FACW
2. <i>Solidago gigantea</i> / Smooth goldenrod	20	Yes	FACW
3. <i>Geum laciniatum</i> / Rough avens	10	No	FACW
4. <i>Symphotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 130	x 2 = 260
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 160 (A)	370 (B)

Prevalence Index = B/A = 2.31

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 10-W014-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-1U  
 Investigator(s): MA, AT, RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90937917 Long: -75.68538283 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 \_\_\_\_\_, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus americana</i> / White ash	40	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	40	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	40	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes	FAC	
2. <i>Prunus pensylvanica</i> / Pin cherry	10	Yes	FACU	
3. <i>Fragaria virginiana</i> / Mountain strawberry	10	Yes	FACU	
4. <i>Alliaria petiolata</i> / Garlic-mustard	5	No	FACU	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	40	= Total Cover		
<b>Woody Vine Stratum</b> (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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (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 105	x 4 = 420
UPL species 0	x 5 = 0
Column Totals: 120 (A)	465 (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<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W015-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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 3 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: 06/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-1W  
 Investigator(s): MA, AT, RF 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: 42.90951417 Long: -75.685429 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 \_\_\_\_\_, 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W015-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
2. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Solidago gigantea</i> / Smooth goldenrod	60	Yes	FACW	
2. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW	
3. <i>Symphotrichum</i> / Aster	10	No	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	110	= Total Cover		
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 115	x 2 = 230
FAC species 25	x 3 = 75
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 140 (A)	305 (B)

Prevalence Index = B/A = 2.18

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W015-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-2U  
 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: 42.90989533 Long: -75.68356217 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Oxalis corniculata</i> / Creeping wood sorrel	10	Yes	FACU	
2. <i>Rubus</i> / Blackberry	5	Yes	NI	
3. <i>Plantago major</i> / Common plantain	5	Yes	FACU	
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: 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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">15</span>	x 4 = <span style="float: right;">60</span>
UPL species <span style="float: right;">5</span>	x 5 = <span style="float: right;">25</span>
Column Totals: <span style="float: right;">20 (A)</span>	<span style="float: right;">85 (B)</span>

Prevalence Index = B/A = 4.25

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 10-W015-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-2W  
 Investigator(s): RF, 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: 42.909848 Long: -75.683425 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 X, Soil X, or Hydrology X 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W015-2W</u>
Remarks: (Explain alternative procedures here or in a separate report.) Newly dug manmade pond in dec and nwi mapped stream	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>24+</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-2W

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	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Remarks: (Explain alternative procedures here or in a separate report.) Open water																																																																																																																																																																																																													

## SOIL

Sampling Point: 10-W015-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Open water, cant take soil. Very deep



# 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-3U  
 Investigator(s): RF, AT, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 2-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90916217 Long: -75.68371183 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 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 _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-3U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Triticum</i> / Wheat	60	Yes	NI
2. <i>Ambrosia artemisiifolia</i> / Annual ragweed, Common ragweed	20	Yes	FACU
3. <i>Asclepias syriaca</i> / Common milkweed	5	No	UPL
4. <i>Barbarea vulgaris</i> / Yellow rocket	2	No	FAC
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	87	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>2</u>	x 3 = <u>6</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>65</u>	x 5 = <u>325</u>
Column Totals: <u>87</u>	(A) <u>411</u> (B)

Prevalence Index = B/A = 4.72

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W015-3U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-3W  
 Investigator(s): RF, AT, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 2-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90923167 Long: -75.68380667 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 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>10-W015-3W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation disturbed from planted crops in agricultural field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-3W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Triticum</i> / Wheat	60	Yes	NI
2. <i>Sinapis arvensis</i> / Charlock	10	No	NI
3. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	5	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	75	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	70	x 5 =	350
Column Totals:	75	(A)	360 (B)

Prevalence Index = B/A = 4.8

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W015-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-4U  
 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 (%): 2-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90914917 Long: -75.68438067 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-4U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Populus tremuloides</i> / Quaking aspen	50	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	40	Yes	FACW
3. <i>Prunus serotina</i> / Black cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	100	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	30	Yes	FACU
2. <i>Rhamnus cathartica</i> / European buckthorn	25	Yes	FAC
3. <i>Prunus serotina</i> / Black cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	25	Yes	FACW
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	20	Yes	FAC
3. <i>Fragaria virginiana</i> / Mountain strawberry	15	No	FACU
4. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	No	FACU
5. <i>Rubus</i> / Blackberry	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 65	x 2 = 130
FAC species 45	x 3 = 135
FACU species 135	x 4 = 540
UPL species 0	x 5 = 0
Column Totals: 245 (A)	805 (B)

Prevalence Index = B/A = 3.29

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W015-4U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 10-W015-4W  
 Investigator(s): RF, AT, ME 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: 42.90921517 Long: -75.68431267 Datum: WGS 1984  
 Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification: R5UBH

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>10-W015-4W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>9</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>9</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 10-W015-4W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 15 Feet)			
1. <i>Rhamnus cathartica</i> / European buckthorn	30	Yes	FAC
2. <i>Cornus amomum</i> / Silky dogwood	15	Yes	FACW
3. <i>Lonicera morrowii</i> / Morrow's honeysuckle	15	Yes	FACU
4.			
5.			
6.			
7.			
	60	= Total Cover	
(Plot size: 5 Feet)			
1. <i>Onoclea sensibilis</i> / Sensitive fern	80	Yes	FACW
2. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	15	No	FAC
3. <i>Symphytotrichum</i> / Aster	10	No	NI
4. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>170</u> (A)	<u>455</u> (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<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 10-W015-4W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Bedrock 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: 09/19/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-UPL-01  
 Investigator(s): RN, RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Backslope Local relief (concave, convex, none): convex Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.964384 Long: -75.75409583 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-UPL-01

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1.				
2.				
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: 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	5	x 1 =	5
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	45	x 4 =	180
UPL species	40	x 5 =	200
Column Totals:	100	(A)	405 (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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-UPL-01

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

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)

<sup>3</sup>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: 06/06/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W002-1U  
Investigator(s): RF AL 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 (%): 5-10  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91719067 Long: -75.63868417 Datum: WGS 1984  
Soil Map Unit Name: Lansing gravelly 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 12-W002-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	25	Yes	FACU	
2. <i>Thuja occidentalis</i> / Eastern arborvitae	20	Yes	FACW	
3. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
4. <i>Fagus grandifolia</i> / American beech	10	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	70	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	25	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	20	Yes	FACU	
2. <i>Prunella vulgaris</i> / Self heal	10	Yes	FAC	
3. <i>Dryopteris</i> / Woodfern	10	Yes	NI	
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
5. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	5	No	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	50	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  
  
 Total Number of Dominant Species Across All Strata: 7 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	40	x 2 =	80	
FAC species	15	x 3 =	45	
FACU species	80	x 4 =	320	
UPL species	10	x 5 =	50	
Column Totals:	145	(A)	495	(B)

Prevalence Index = B/A = 3.41

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W002-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W002-1W  
 Investigator(s): RF AL 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.917222 Long: -75.63874967 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 3 to 8 percent slopes NWI classification: PFO4E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W002-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W002-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Thuja occidentalis</i> / Eastern arborvitae	25	Yes	FACW
2. <i>Betula alleghaniensis</i> / Yellow birch	20	Yes	FAC
3. <i>Ulmus americana</i> / American elm	10	No	FACW
4. <i>Tsuga canadensis</i> / Eastern hemlock	10	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Osmundastrum cinnamomeum</i> / Cinnamon fern	80	Yes	FACW
2. <i>Symphyotrichum</i> / Aster	15	No	NI
3. <i>Caltha palustris</i> / Yellow marsh marigold	15	No	OBL
4. <i>Impatiens capensis</i> / Spotted jewelweed	15	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	125	= Total Cover	
<b>Woody Vine Stratum</b> (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 130	x 2 = 260
FAC species 20	x 3 = 60
FACU species 10	x 4 = 40
UPL species 15	x 5 = 75
Column Totals: 190	(A) 450 (B)

Prevalence Index = B/A = 2.37

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W002-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W003-1U  
 Investigator(s): MA, RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Toe of slope Local relief (concave, convex, none): concave Slope (%): 3-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91961983 Long: -75.6759515 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland area adjacent to PEM wetland. Located at base of hill adjacent to agricultural field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W003-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Betula alleghaniensis</i> / Yellow birch	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago canadensis</i> / Canada goldenrod	70	Yes	FACU
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	20	No	FAC
3. <i>Galium aparine</i> / Cleavers, Goose grass	15	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
<b>Woody Vine Stratum</b> (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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 35	x 3 = 105
FACU species 85	x 4 = 340
UPL species 0	x 5 = 0
Column Totals: 120 (A)	445 (B)

Prevalence Index = B/A = 3.71

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W003-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W003-1W  
 Investigator(s): MA, RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Valley bottom Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.919728 Long: -75.675949 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W003-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>PEM wetland located at the base of three hills. Adjacent to agriculture and forested wetland. Intermittent stream flows through wetland</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W003-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	65	Yes	OBL	
2. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes	FACW	
3. <i>Impatiens capensis</i> / Spotted jewelweed	20	No	FACW	
4. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	10	No	FACW	
5. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	6	No	OBL	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	131	= 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 71	x 1 = 71
FACW species 60	x 2 = 120
FAC species 10	x 3 = 30
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 141	(A) 221 (B)

Prevalence Index = B/A = 1.57

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W003-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W003-2U  
 Investigator(s): MA, RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Toe of slope Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.920141 Long: -75.67648283 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Forested upland area along hillslope.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W003-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	50	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fagus grandifolia</i> / American beech	25	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	25	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
3. <i>Prunus</i> / Plum	5	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	20	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 3 = 0
FACU species 90	x 4 = 360
UPL species 0	x 5 = 0
Column Totals: 95 (A)	370 (B)

Prevalence Index = B/A = 3.89

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W003-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W003-2W  
 Investigator(s): MA, RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Valley bottom Local relief (concave, convex, none): concave Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92004083 Long: -75.6765555 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W003-2W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.) Forest portion of wetland 12-W003. Located in valley bottom	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>0.5</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W003-2W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Tsuga canadensis</i> / Eastern hemlock	25	Yes	FACU	
2. <i>Betula alleghaniensis</i> / Yellow birch	5	No	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	20	Yes	FAC	
2. <i>Impatiens capensis</i> / Spotted jewelweed	15	Yes	FACW	
3. <i>Onoclea sensibilis</i> / Sensitive fern	15	Yes	FACW	
4. <i>Carex</i> / Sedge	5	No	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	55	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet)				
1. _____				
2. _____				
3. _____				
4. _____				
	0	= Total Cover		

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

**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 35	x 2 = 70
FAC species 25	x 3 = 75
FACU species 25	x 4 = 100
UPL species 0	x 5 = 0
Column Totals: 85 (A)	245 (B)

Prevalence Index = B/A = 2.88

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 12-W003-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W004-1U  
 Investigator(s): MA, 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 (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92044133 Long: -75.676294 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 _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Forested upland area adjacent to wetland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W004-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Fagus grandifolia</i> / American beech	60	Yes	FACU
2. <i>Tsuga canadensis</i> / Eastern hemlock	10	No	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	80	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Carex gracillima</i> / Graceful sedge	5	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	10	= Total Cover	
<b>Woody Vine Stratum</b> (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 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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W004-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

Root and rock 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: 06/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W004-1W  
 Investigator(s): RF, AT, MA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92044617 Long: -75.6761815 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W004-1W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W004-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
(Plot size: 15 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
(Plot size: 5 Feet)				
1. <i>Impatiens capensis</i> / Spotted jewelweed	40	Yes		FACW
2. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes		FACW
3. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	20	No		FAC
4. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	10	No		FACW
5. <i>Rubus</i> / Blackberry	2	No		NI
6. <i>Equisetum arvense</i> / Common horsetail	2	No		FAC
7.				
8.				
9.				
10.				
11.				
12.				
	104	= Total Cover		
(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	80	x 2 =	160
FAC species	22	x 3 =	66
FACU species	0	x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	104	(A)	236 (B)

Prevalence Index = B/A = 2.27

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W004-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W005-1U  
 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 (%): 2-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.908428 Long: -75.68380167 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 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 _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation disturbed: planted hay field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W005-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Unknown</i>	60	Yes		NI
2. <i>Elymus repens</i> / Quack grass	10	No		FACU
3. <i>Dactylis glomerata</i> / Orchardgrass	5	No		FACU
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No		FACU
5. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No		FAC
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	85	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	5	x 3 =	15	
FACU species	20	x 4 =	80	
UPL species	60	x 5 =	300	
Column Totals:	85	(A)	395	(B)

Prevalence Index = B/A = 4.65

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W005-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W005-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90844983 Long: -75.68342083 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 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 _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W005-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Planted hay field, vegetation disturbed	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W005-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Unknown</i>	60	Yes	NI
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	15	Yes	FACW
3. <i>Onoclea sensibilis</i> / Sensitive fern	15	Yes	FACW
4. <i>Ambrosia artemisiifolia</i> / Annual ragweed, Common ragweed	15	Yes	FACU
5. <i>Elymus repens</i> / Quack grass	15	Yes	FACU
6. <i>Salix</i> / Willow	10	No	FACW
7. <i>Equisetum</i> / Horsetail	2	No	NI
8.			
9.			
10.			
11.			
12.			
	132	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>62</u>	x 5 = <u>310</u>
Column Totals: <u>132</u> (A)	<u>510</u> (B)

Prevalence Index = B/A = 3.86

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W005-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W006-1U  
 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 (%): 2-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91371517 Long: -75.69867467 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W006-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Populus tremuloides</i> / Quaking aspen	45	Yes	FACU
2. <i>Prunus serotina</i> / Black cherry	10	No	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Crataegus</i> / Hawthorn	60	Yes	NI
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	No	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	70	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	30	Yes	FACW
2. <i>Solidago canadensis</i> / Canada goldenrod	10	No	FACU
3. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	5	No	FACW
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU
5. <i>Fragaria virginiana</i> / Mountain strawberry	2	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	52	= Total Cover	
<b>Woody Vine Stratum</b> (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 35	x 2 = 70
FAC species 0	x 3 = 0
FACU species 82	x 4 = 328
UPL species 60	x 5 = 300
Column Totals: 177 (A)	698 (B)

Prevalence Index = B/A = 3.94

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W006-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W006-1W  
 Investigator(s): RF, 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: 42.91356417 Long: -75.69859367 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W006-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>3</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W006-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Populus tremuloides</i> / Quaking aspen	80	Yes	FACU
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	80	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Alnus incana</i> / Gray alder	25	Yes	FACW
2. <i>Salix</i> / Willow	2	No	NI
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	27	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	30	Yes	FACW
2. <i>Eutrochium maculatum</i> / Spotted trumpetweed	20	Yes	OBL
3. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW
4. <i>Symphotrichum</i> / Aster	10	No	NI
5. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	75	= Total Cover	
<b>Woody Vine Stratum</b> (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	20	x 1 =	20	
FACW species	70	x 2 =	140	
FAC species	0	x 3 =	0	
FACU species	80	x 4 =	320	
UPL species	12	x 5 =	60	
Column Totals:	182	(A)	540	(B)

Prevalence Index = B/A = 2.97

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W006-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W006-2U  
 Investigator(s): \_\_\_\_\_ Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): 0-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91271083 Long: -75.698766 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W006-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	25	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	50	= 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: 6 (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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>75</u>	(A) <u>290</u> (B)

Prevalence Index = B/A = 3.87

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

   2 - Dominance Test is >50%

   3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W006-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5", fill



## 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: 09/21/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W006-2W  
Investigator(s): RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91271867 Long: -75.69866267 Datum: WGS 1984  
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1/FO1Ed  
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: 12-W006-2W 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)        Water-Stained Leaves (B9)  
       High Water Table (A2)        Aquatic Fauna (B13)  
       Saturation (A3)        Marl Deposits (B15)  
       Water Marks (B1)        Hydrogen Sulfide Odor (C1)  
       Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3)  
       Drift Deposits (B3)        Presence of Reduced Iron (C4)  
       Algal Mat or Crust (B4)        Recent Iron Reduction in Tilled Soils (C6)  
       Iron Deposits (B5)        Thin Muck Surface (C7)  
       Inundation Visible on Aerial Imagery (B7)        Other (Explain in Remarks)  
       Sparsely Vegetated Concave Surface (B8)

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? Yes        No X Depth (inches):         
(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: 12-W006-2W

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Eutrochium maculatum</i> / Spotted trumpetweed	20	Yes	OBL	
2. <i>Carex</i> / Sedge	15	Yes	FACW	
3. <i>Symphotrichum novae-angliae</i> / New england american-ast	15	Yes	FACW	
4. <i>Symphotrichum lateriflorum</i> / Farewell-summer	15	Yes	FAC	
5. <i>Euthamia graminifolia</i> / Flat-top goldentop	10	No	FAC	
6. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
7. <i>Solidago altissima</i> / Canada goldenrod	5	No	FACU	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	85	= Total Cover		

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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	20	x 1 =	20	
FACW species	35	x 2 =	70	
FAC species	25	x 3 =	75	
FACU species	5	x 4 =	20	
UPL species	0	x 5 =	0	
Column Totals:	85	(A)	185	(B)

Prevalence Index = B/A = 2.18

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W006-2W

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 10

**Hydric Soil Present?**      Yes      X      No

Remarks:

Gravel refusal at 10"



# 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W007-1U  
 Investigator(s): RF 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: 42.91429167 Long: -75.69858667 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W007-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Symphyotrichum</i> / Aster	40	Yes	NI
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	30	Yes	FAC
3. <i>Euthamia graminifolia</i> / Flat-top goldentop	20	No	FAC
4. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	15	No	FACU
5. <i>Parthenocissus quinquefolia</i> / Virginia creeper	10	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>40</u>	x 5 = <u>200</u>
Column Totals: <u>115</u> (A)	<u>450</u> (B)

Prevalence Index = B/A = 3.91

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W007-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W007-1W  
 Investigator(s): RF 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: 42.9144015 Long: -75.69873183 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W007-1W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W007-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Salix</i> / Willow		50	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
		50	= Total Cover	

Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Solidago gigantea</i> / Smooth goldenrod		30	Yes	FACW
2. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge		20	Yes	OBL
3. <i>Apocynum cannabinum</i> / Indian hemp		15	Yes	FAC
4. <i>Euthamia graminifolia</i> / Flat-top goldenrod		10	No	FAC
5. <i>Solidago canadensis</i> / Canada goldenrod		10	No	FACU
6. <i>Ranunculus acris</i> / Acrid buttercup		10	No	FAC
7. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod		5	No	FAC
8.				
9.				
10.				
11.				
12.				
		100	= Total Cover	

Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 20	x 1 = 20
FACW species 80	x 2 = 160
FAC species 40	x 3 = 120
FACU species 10	x 4 = 40
UPL species 0	x 5 = 0
Column Totals: 150	(A) 340 (B)

Prevalence Index = B/A = 2.27

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W007-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W008-1U  
 Investigator(s): RF AT JK 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: 42.91565883 Long: -75.69903717 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-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)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Crataegus</i> / Hawthorn	15	Yes	NI
2.	<i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC
3.				
4.				
5.				
6.				
7.				
		25	= Total Cover	
Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Dactylis glomerata</i> / Orchardgrass	10	Yes	FACU
2.	<i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	Yes	FACU
3.	<i>Plantago</i> / Plantain	10	Yes	NI
4.	<i>Anthoxanthum odoratum</i> / Sweet vernal grass	10	Yes	FACU
5.	<i>Fragaria virginiana</i> / Mountain strawberry	5	No	FACU
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		45	= Total Cover	
Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 0	x 2 = 0
FAC species 10	x 3 = 30
FACU species 35	x 4 = 140
UPL species 25	x 5 = 125
Column Totals: 70 (A)	295 (B)

Prevalence Index = B/A = 4.21

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W008-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W008-1W  
 Investigator(s): RF, 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91552722 Long: -75.69895399 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 \_\_\_\_\_  
 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: 12-W008-1W 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) \_\_\_\_\_ Water-Stained Leaves (B9)  
 \_\_\_\_ High Water Table (A2) \_\_\_\_\_ Aquatic Fauna (B13)  
 \_\_\_\_ Saturation (A3) \_\_\_\_\_ Marl Deposits (B15)  
 \_\_\_\_ Water Marks (B1) \_\_\_\_\_ Hydrogen Sulfide Odor (C1)  
 \_\_\_\_ Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3)  
 \_\_\_\_ Drift Deposits (B3) \_\_\_\_\_ Presence of Reduced Iron (C4)  
 \_\_\_\_ Algal Mat or Crust (B4) \_\_\_\_\_ Recent Iron Reduction in Tilled Soils (C6)  
 \_\_\_\_ Iron Deposits (B5) \_\_\_\_\_ Thin Muck Surface (C7)  
 \_\_\_\_ Inundation Visible on Aerial Imagery (B7) \_\_\_\_\_ Other (Explain in Remarks)  
 \_\_\_\_ Sparsely Vegetated Concave Surface (B8)

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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (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: 12-W008-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Anthoxanthum hirtum</i> / Northern sweet vernal grass	30	Yes	FACW
2. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	20	Yes	OBL
3. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
4. <i>Solidago gigantea</i> / Smooth goldenrod	15	No	FACW
5. <i>Scirpus atrovirens</i> / Green bulrush	10	No	OBL
6. <i>Symphyotrichum novae-angliae</i> / New england american-ast	10	No	FACW
7. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>30</u>	x 1 = <u>30</u>
FACW species <u>75</u>	x 2 = <u>150</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>210</u> (B)

Prevalence Index = B/A = 1.83

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W008-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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: 06/28/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W009-1U  
Investigator(s): RF, 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 (%): 0-3  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91707217 Long: -75.69979117 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 12-W009-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Larix decidua</i> / European larch	40	Yes	NI
2. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU
3. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	70	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Acer saccharum</i> / Sugar maple	5	Yes	FACU
2. <i>Populus tremuloides</i> / Quaking aspen	2	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	7	= Total Cover	
<b>Woody Vine Stratum</b> (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: 4 (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 37	x 4 = 148
UPL species 40	x 5 = 200
Column Totals: 77 (A)	348 (B)

Prevalence Index = B/A = 4.52

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W009-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Root 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W009-1W  
 Investigator(s): RF, 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 (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91707583 Long: -75.69985067 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 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W009-1W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Upland tree species on mounds within wetland</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		_____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>0.5</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W009-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Larix decidua</i> / European larch	40	Yes	NI	
2. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	20	Yes	FACU	
3. <i>Acer rubrum</i> / Red maple	15	No	FAC	
4. <i>Acer saccharum</i> / Sugar maple	10	No	FACU	
5. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW	
6. _____				
7. _____				
	95	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Impatiens capensis</i> / Spotted jewelweed	15	Yes	FACW	
2. <i>Athyrium angustum</i> / Northern lady fern	15	Yes	FAC	
3. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	5	No	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	35	= Total Cover		
<b>Woody Vine Stratum</b> (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 25	x 2 = 50
FAC species 35	x 3 = 105
FACU species 30	x 4 = 120
UPL species 40	x 5 = 200
Column Totals: 130 (A)	475 (B)

Prevalence Index = B/A = 3.65

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W009-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W040-1U  
 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: 42.9034065 Long: -75.66263217 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W040-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Acer saccharum</i> / Sugar maple	50	Yes	FACU
2. <i>Acer rubrum</i> / Red maple	10	No	FAC
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	65	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Dryopteris</i> / Woodfern	5	Yes	NI
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
3. <i>Rhamnus cathartica</i> / European buckthorn	2	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	12	= Total Cover	
<b>Woody Vine Stratum</b> (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	12	x 3 =	36
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	77	(A)	281 (B)

Prevalence Index = B/A = 3.65

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W40-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- |  |   |
|--|---|
| <input type="checkbox"/> Polyvalue Below Surface (S8) <b>(LRR R,MLRA 149B)</b> | <input type="checkbox"/> 2 cm Muck (A10) <b>(LRR K, L, MLRA 149B)</b>       |
| <input type="checkbox"/> Thin Dark Surface (S9) <b>(LRR R, MLRA 149B)</b>      | <input type="checkbox"/> Coast Prairie Redox (A16) <b>(LRR K, L, R)</b>     |
| <input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(LRR K, L)</b>            | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <b>(LRR K, L, R)</b>  |
| <input type="checkbox"/> Loamy Gleyed Matrix (F2)                              | <input type="checkbox"/> Dark Surface (S7) <b>(LRR K, L)</b>                |
| <input type="checkbox"/> Depleted Matrix (F3)                                  | <input type="checkbox"/> Polyvalue Below Surface (S8) <b>(LRR K, L)</b>     |
| <input type="checkbox"/> Redox Dark Surface (F6)                               | <input type="checkbox"/> Thin Dark Surface (S9) <b>(LRR K, L)</b>           |
| <input type="checkbox"/> Depleted Dark Surface (F7)                            | <input type="checkbox"/> Iron-Manganese Masses (F12) <b>(LRR K, L, R)</b>   |
| <input type="checkbox"/> Redox Depressions (F8)                                | <input type="checkbox"/> Piedmont Floodplain Soils (F19) <b>(MLRA 149B)</b> |
|  | <input type="checkbox"/> Mesic Spodic (TA6) <b>(MLRA 144A, 145, 149B)</b>   |
|  | <input type="checkbox"/> Red Parent Material (F21)                          |
|  | <input type="checkbox"/> Very Shallow Dark Surface (TF12)                   |
|  | <input type="checkbox"/> Other (Explain in Remarks)                         |

<sup>3</sup>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:

Root and rock refusal 6"



# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smith Sampling Date: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W040-1W  
 Investigator(s): RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison  
 Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90336933 Long: -75.662775 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: 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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W040-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>3</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W040-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer rubrum</i> / Red maple	30	Yes	FAC
2. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
3. <i>Carpinus caroliniana</i> / American hornbeam	5	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	50	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Caltha palustris</i> / Yellow marsh marigold	60	Yes	OBL
2. <i>Symphyotrichum</i> / Aster	10	No	NI
3. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW
4. <i>Geum canadense</i> / White avens	5	No	FAC
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	85	= Total Cover	
<b>Woody Vine Stratum</b> (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 60	x 1 = 60
FACW species 25	x 2 = 50
FAC species 40	x 3 = 120
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 135 (A)	280 (B)

Prevalence Index = B/A = 2.07

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

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

## SOIL

Sampling Point: 12-W040-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 Smi Sampling Date: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W040-2U  
 Investigator(s): RN RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): none Slope (%): 10-15 County  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.902551 Long: -75.66209267 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Forested hillslope</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W040-2U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	80	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	20	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	100	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Carex</i> / Sedge	10	Yes	NI	
2. <i>Geum canadense</i> / White avens	5	Yes	FAC	
3. <i>Acer saccharum</i> / Sugar maple	5	Yes	FACU	
4. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	
5. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	Yes	FACU	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	30	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. _____				
2. _____				
3. _____				
4. _____				
	0	= Total Cover		

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

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
  
 Total Number of Dominant Species Across All Strata: 9 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 22.2 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 5	x 3 = 15
FACU species 135	x 4 = 540
UPL species 10	x 5 = 50
Column Totals: 155 (A)	615 (B)

Prevalence Index = B/A = 3.97

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W040-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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:

### Root 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: 12-W040-2W  
Investigator(s): RN RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Valley bottom Local relief (concave, convex, none): concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90242967 Long: -75.66222767 Datum: WGS 1984  
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PFO1E  
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: 12-W011-2W 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)

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

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): 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: 12-W040-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Ulmus americana</i> / American elm	10	Yes	FACW
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes	FACW
2. <i>Caltha palustris</i> / Yellow marsh marigold	25	Yes	OBL
3. <i>Celastrus</i> / Bittersweet	15	Yes	NI
4. <i>Osmundastrum cinnamomeum</i> / Cinnamon fern	15	Yes	FACW
5. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW
6. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
7. <i>Valeriana officinalis</i> / Garden valerian	5	No	NI
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	110	= Total Cover	
<b>Woody Vine Stratum</b> (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 75	x 2 = 150
FAC species 10	x 3 = 30
FACU species 5	x 4 = 20
UPL species 20	x 5 = 100
Column Totals: 135 (A)	325 (B)

Prevalence Index = B/A = 2.41

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 12-W040-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

X	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) <b>(LRR R, MLRA 149B)</b>

- \_\_\_ 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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 Smi Sampling Date: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W040-3U  
 Investigator(s): RN RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): convex Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90496517 Long: -75.664008 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 \_\_\_\_\_, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Active agriculture field</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W040-3U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	

Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Glycine max</i> / Soybean	35	Yes	NI
2.	<i>Plantago lanceolata</i> / Ribwort, English plantain	10	No	FACU
3.	<i>Ambrosia artemisiifolia</i> / Annual ragweed, Common ragweec	5	No	FACU
4.	<i>Oxalis corniculata</i> / Creeping wood sorrel	5	No	FACU
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		55	= Total Cover	

Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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	20	x 4 =	80
UPL species	35	x 5 =	175
Column Totals:	55	(A)	255 (B)

Prevalence Index = B/A = 4.64

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W040-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W040-3W  
 Investigator(s): RN RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90480033 Long: -75.6641855 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: 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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W011-3W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W040-3W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Acer rubrum</i> / Red maple	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	60	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	60	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Onoclea sensibilis</i> / Sensitive fern	35	Yes	FACW
2. <i>Solidago gigantea</i> / Smooth goldenrod	20	Yes	FACW
3. <i>Centaurea jacea</i> / Brownray knapweed	15	No	FACU
4. <i>Equisetum</i> / Horsetail	10	No	NI
5. <i>Thalictrum</i> / Meadow-rue	5	No	NI
6. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
<b>Woody Vine Stratum</b> (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 55	x 2 = 110
FAC species 5	x 3 = 15
FACU species 20	x 4 = 80
UPL species 75	x 5 = 375
Column Totals: 155	(A) 580 (B)

Prevalence Index = B/A = 3.74

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W040-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W011-4U  
 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 (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90798283 Long: -75.66424233 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W011-4U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	80	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	10	No	FACU
3. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	5	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	95	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC
2. <i>Fagus grandifolia</i> / American beech	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	10	= Total Cover	
<b>Woody Vine Stratum</b> (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	120	x 4 =	480	
UPL species	0	x 5 =	0	
Column Totals:	125	(A)	495	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W011-4U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W011-4W  
 Investigator(s): RF, 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: 42.908041 Long: -75.66417967 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W010-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>12</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W011-4W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. <i>Salix</i> / Willow	10	Yes		NI
2. <i>Carpinus caroliniana</i> / American hornbeam	5	Yes		FAC
3. <i>Betula alleghaniensis</i> / Yellow birch	5	Yes		FAC
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	20	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Symplocarpus foetidus</i> / Skunk-cabbage	50	Yes		OBL
2. <i>Carex</i> / Sedge	40	Yes		NI
3. <i>Veratrum viride</i> / American false hellebore	15	No		FACW
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No		FAC
5. <i>Dryopteris</i> / Woodfern	5	No		NI
6. <i>Impatiens capensis</i> / Spotted jewelweed	5	No		FACW
7. <i>Onoclea sensibilis</i> / Sensitive fern	5	No		FACW
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	130	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**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	50	x 1 =	50
FACW species	25	x 2 =	50
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	55	x 5 =	275
Column Totals:	150	(A)	435 (B)

Prevalence Index = B/A = 2.9

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
X 3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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



## SOIL

Sampling Point: 12-W011-4W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W011-5U  
 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 (%): 0-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90703383 Long: -75.6648755 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W011-5U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
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. <i>Medicago sativa</i> / Alfalfa	20	Yes		UPL
2. <i>Asclepias syriaca</i> / Common milkweed	15	Yes		UPL
3. <i>Oxalis corniculata</i> / Creeping wood sorrel	10	Yes		FACU
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	10	x 4 =	40
UPL species	35	x 5 =	175
Column Totals:	45	(A)	215 (B)

Prevalence Index = B/A = 4.78

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 12-W011-5U

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W011-5W  
 Investigator(s): RF, 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: 42.90690683 Long: -75.66485317 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W010-2W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W011-5W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattail	50	Yes	OBL
2. <i>Symphyotrichum</i> / Aster	15	No	NI
3. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	15	No	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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	65	x 1 =	65	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	15	x 5 =	75	
Column Totals:	80	(A)	140	(B)

Prevalence Index = B/A = 1.75

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W011-5W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 12-W012-1U  
 Investigator(s): RF, AT, RN Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95543733 Long: -75.73548717 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W012-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	60	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	15	No	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	85	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Symphytichum</i> / Aster	5	Yes	NI
2. <i>Fagus grandifolia</i> / American beech	5	Yes	FACU
3. <i>Dryopteris</i> / Woodfern	5	Yes	NI
4. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	20	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**Dominance Test worksheet:**

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	15	x 2 =	30	
FAC species	0	x 3 =	0	
FACU species	80	x 4 =	320	
UPL species	10	x 5 =	50	
Column Totals:	105	(A)	400	(B)

Prevalence Index = B/A = 3.81

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W012-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root 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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W012-1W  
 Investigator(s): RN RF 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: 42.95548917 Long: -75.73527217 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W012-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>4</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W012-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU
2. <i>Crataegus</i> / Hawthorn	20	Yes	NI
3. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW
4. <i>Prunus serotina</i> / Black cherry	5	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	85	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW
2. <i>Osmundastrum cinnamomeum</i> / Cinnamon fern	20	Yes	FACW
3. <i>Impatiens capensis</i> / Spotted jewelweed	15	No	FACW
4. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	15	No	OBL
5. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	5	No	FAC
6. <i>Geum canadense</i> / White avens	5	No	FAC
7. <i>Fragaria virginiana</i> / Mountain strawberry	2	No	FACU
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	102	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**Dominance Test worksheet:**

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.1 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 15	x 1 = 15
FACW species 100	x 2 = 200
FAC species 10	x 3 = 30
FACU species 57	x 4 = 228
UPL species 20	x 5 = 100
Column Totals: 202 (A)	573 (B)

Prevalence Index = B/A = 2.84

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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



## SOIL

Sampling Point: 12-W012-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 12-W013-1U  
 Investigator(s): MERF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.955116 Long: -75.73707567 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W013-1U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: center;">Absolute % Cover</th> <th style="width: 15%; text-align: center;">Dominant Species?</th> <th style="width: 30%; text-align: center;">Indicator Status</th> </tr> <tr> <td colspan="4"><b>Tree Stratum</b> (Plot size: 30 Feet )</td> </tr> <tr> <td>1. <i>Acer saccharum</i> / Sugar maple</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2. <i>Prunus serotina</i> / Black cherry</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">25</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> <tr> <td colspan="4"><b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )</td> </tr> <tr> <td>1. <i>Betula alleghaniensis</i> / Yellow birch</td> <td style="text-align: center;">40</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>2. <i>Fraxinus pennsylvanica</i> / Green ash</td> <td style="text-align: center;">10</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>3. <i>Lonicera morrowii</i> / Morrow's honeysuckle</td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FACU</td> </tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">55</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> <tr> <td colspan="4"><b>Herb Stratum</b> (Plot size: 5 Feet )</td> </tr> <tr> <td>1. <i>Betula alleghaniensis</i> / Yellow birch</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>2. <i>Symphytotrichum</i> / Aster</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">NI</td> </tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">25</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> <tr> <td colspan="4"><b>Woody Vine Stratum</b> (Plot size: 30 Feet )</td> </tr> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table>		Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 12-W013-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

Root 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: 12-W013-1W  
 Investigator(s): MERF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95508783 Long: -75.73716917 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W013-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W013-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 15 Feet)			
1. <i>Crataegus</i> / Hawthorn	15	Yes	FAC
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
(Plot size: 5 Feet)			
1. <i>Solidago gigantea</i> / Smooth goldenrod	25	Yes	FACW
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
3. <i>Hydrophyllum virginianum</i> var. <i>virginianum</i> / Eastern waterle	15	Yes	FAC
4. <i>Symphotrichum</i> / Aster	15	Yes	NI
5. <i>Mentha arvensis</i> / American wild mint, Field mint	10	No	FACW
6. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW
7. <i>Symphotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
(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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 65	x 2 = 130
FAC species 40	x 3 = 120
FACU species 10	x 4 = 40
UPL species 15	x 5 = 75
Column Totals: 130 (A)	365 (B)

Prevalence Index = B/A = 2.81

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W013-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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**)  
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☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 6

Hydric Soil Present?      Yes      X      No

Remarks:

### Bedrock 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: 12-W013-2U  
 Investigator(s): MERF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 2-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95480517 Long: -75.73657667 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W013-2U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Tsuga canadensis</i> / Eastern hemlock	50	Yes	FACU	
2. <i>Tilia americana</i> / American basswood	20	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	70	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Betula alleghaniensis</i> / Yellow birch	5	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Parathelypteris noveboracensis</i> / New york fern	10	Yes	FAC	
2. <i>Dryopteris</i> / Woodfern	5	Yes	NI	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	15	= Total Cover		
<b>Woody Vine Stratum</b> (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 15	x 3 = 45
FACU species 70	x 4 = 280
UPL species 5	x 5 = 25
Column Totals: 90 (A)	350 (B)

Prevalence Index = B/A = 3.89

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W013-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root refusal at 8

# 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: 12-W013-2W  
 Investigator(s): MERF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95467683 Long: -75.73666917 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W013-2W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W013-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	30	Yes	FACU
2. <i>Betula alleghaniensis</i> / Yellow birch	20	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	50	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Impatiens capensis</i> / Spotted jewelweed	20	Yes	FACW
2. <i>Matteuccia struthiopteris</i> / Ostrich fern	15	Yes	FAC
3. <i>Hydrophyllum virginianum</i> var. <i>virginianum</i> / Eastern waterle	10	Yes	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 30	x 2 = 60
FAC species 45	x 3 = 135
FACU species 30	x 4 = 120
UPL species 0	x 5 = 0
Column Totals: 105 (A)	315 (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W013-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock  
Depth (inches): 10

Hydric Soil Present?      Yes      X      No

Remarks:

Bedrock 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: 07/10/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W014-1U  
 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: 42.9339305 Long: -75.72867067 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W014-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Avena</i> / Oat	80	Yes	NI
2. <i>Trifolium pratense</i> / Red clover	2	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	82	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 2	x 4 = 8
UPL species 80	x 5 = 400
Column Totals: 82	(A) 408 (B)

Prevalence Index = B/A = 4.98

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W014-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/10/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W014-1W  
 Investigator(s): RF, 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9339645 Long: -75.7287483 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W014-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Persicaria maculosa</i> / Spotted ladythumb, Lady's thumb	15	Yes	FAC	
2. <i>Mentha arvensis</i> / American wild mint, Field mint	10	Yes	FACW	
3. <i>Avena</i> / Oat	10	Yes	NI	
4. <i>Phalaris arundinacea</i> / Reed canary grass	5	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	40	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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: 3 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	15	x 2 =	30	
FAC species	15	x 3 =	45	
FACU species	0	x 4 =	0	
UPL species	10	x 5 =	50	
Column Totals:	40	(A)	125	(B)

Prevalence Index = B/A = 3.13

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
   3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W014-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W015-1U  
 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: 42.914602 Long: -75.66629083 Datum: WGS 1984  
 Soil Map Unit Name: Palmyra gravelly loam, undulating 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W015-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Zea mays</i> / Corn	80	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>80</u>	x 5 = <u>400</u>
Column Totals: <u>80</u> (A)	<u>400</u> (B)

Prevalence Index = B/A = 5.0

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W015-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W015-1W  
 Investigator(s): RF, 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: 42.91460367 Long: -75.66629233 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 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W015-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W015-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Zea mays</i> / Corn	20	Yes	NI
2. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	15	Yes	OBL
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	35	= Total Cover	
<b>Woody Vine Stratum</b> (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 15	x 1 = 15
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 20	x 5 = 100
Column Totals: 35 (A)	115 (B)

Prevalence Index = B/A = 3.29

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting  
 X Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

Remarks: (Explain alternative procedures here or in a separate report.)  
 Zea mays planted within wetland and while growing is stunted and receding.



## SOIL

Sampling Point: 12-W015-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W016-1U  
 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 (%): O-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9144695 Long: -75.66893633 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W016-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Zea mays</i> / Corn	80	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>
UPL species <span style="float: right;">80</span>	x 5 = <span style="float: right;">400</span>
Column Totals: <span style="float: right;">80 (A)</span>	<span style="float: right;">400 (B)</span>

Prevalence Index = B/A = 5.0

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 12-W016-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W016-1W  
 Investigator(s): RF, 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: 42.91427733 Long: -75.668818 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 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W016-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 12-W016-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )			
1. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	25	Yes	OBL
2. <i>Zea mays</i> / Corn	20	Yes	NI
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	<u>45</u>	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
	<u>0</u>	= 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	<u>25</u>	x 1 =	<u>25</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>0</u>	x 3 =	<u>0</u>	
FACU species	<u>0</u>	x 4 =	<u>0</u>	
UPL species	<u>20</u>	x 5 =	<u>100</u>	
Column Totals:	<u>45</u>	(A)	<u>125</u>	(B)

Prevalence Index = B/A = 2.78

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
   2 - Dominance Test is >50%  
  X 3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W016-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W017-1U  
 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: 42.92040233 Long: -75.683355 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W017-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	30	Yes	FACW
2. <i>Plantago</i> / Plantain	25	Yes	NI
3. <i>Galium album</i> / White bedstraw	10	No	NI
4. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 30	x 2 = 60
FAC species 0	x 3 = 0
FACU species 5	x 4 = 20
UPL species 35	x 5 = 175
Column Totals: 70 (A)	255 (B)

Prevalence Index = B/A = 3.64

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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.)  
Herbaceous recently mowed

## SOIL

Sampling Point: 12-W017-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W017-1W  
 Investigator(s): RF, 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92047717 Long: -75.68330917 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W017-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	40	Yes	FACW
2. <i>Equisetum arvense</i> / Common horsetail	25	Yes	FAC
3. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	25	Yes	OBL
4. <i>Mentha</i> / Mint	15	No	NI
5. <i>Anthoxanthum odoratum</i> / Sweet vernal grass	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	115	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	25	x 1 =	25
FACW species	40	x 2 =	80
FAC species	25	x 3 =	75
FACU species	10	x 4 =	40
UPL species	15	x 5 =	75
Column Totals:	115	(A)	295 (B)

Prevalence Index = B/A = 2.57

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐



## SOIL

Sampling Point: 12-W017-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W017-2U  
 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: 42.92135917 Long: -75.683424 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W017-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Prunus serotina</i> / Black cherry	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	25	Yes	FAC
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago canadensis</i> / Canada goldenrod	45	Yes	FACU
2. <i>Symphyotrichum</i> / Aster	10	No	NI
3. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU
4. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
5. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
<b>Woody Vine Stratum</b> (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	30	x 3 =	90	
FACU species	90	x 4 =	360	
UPL species	10	x 5 =	50	
Column Totals:	130	(A)	500	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W017-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 and root 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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W017-2W  
 Investigator(s): RF, 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: 42.921425 Long: -75.683388 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W017-2W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W017-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	60	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Symphyotrichum</i> / Aster	40	Yes	NI
2. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	20	Yes	OBL
3. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
4. <i>Solidago gigantea</i> / Smooth goldenrod	15	No	FACW
5. <i>Scirpus atrovirens</i> / Green bulrush	5	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 25	x 1 = 25
FACW species 35	x 2 = 70
FAC species 60	x 3 = 180
FACU species 0	x 4 = 0
UPL species 40	x 5 = 200
Column Totals: 160 (A)	475 (B)

Prevalence Index = B/A = 2.97

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W017-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 8

**Hydric Soil Present?**      Yes      ☒      No      ☐

Remarks:

Bedrock refusal at 8 inches

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smith Sampling Date: 07/11/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W018-1U  
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: 42.92227983 Long: -75.67957 Datum: WGS 1984  
Soil Map Unit Name: Conesus silt loam, 3 to 8 percent slopes 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.)

Hydrophytic Vegetation Present?	Yes _____	No <u>  X  </u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>  X  </u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>  X  </u>	
Wetland Hydrology Present?	Yes _____	No <u>  X  </u>	
Remarks: (Explain alternative procedures here or in a separate report.)			

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply) <table border="0"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>				<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <table border="0"> <tr> <td><input type="checkbox"/> Surface Soil Cracks (B6)</td> </tr> <tr> <td><input type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Moss Trim Lines (B16)</td> </tr> <tr> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td> </tr> <tr> <td><input type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input type="checkbox"/> Microtopographic Relief (D4)</td> </tr> <tr> <td><input type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> </table>		<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																																			
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<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																				
Remarks:																																				



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W018-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus americana</i> / White ash	60	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	40	Yes	FAC
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	No	FACU
3. <i>Viburnum</i> / Viburnum	10	No	NI
4.			
5.			
6.			
7.			
	60	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
<b>Woody Vine Stratum</b> (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	40	x 3 =	120
FACU species	70	x 4 =	280
UPL species	10	x 5 =	50
Column Totals:	120	(A)	450 (B)

Prevalence Index = B/A = 3.75

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 12-W018-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>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:

Root 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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W018-1W  
 Investigator(s): RF, 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: 42.9223405 Long: -75.6797365 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W018-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W018-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
2. <i>Fraxinus americana</i> / White ash	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	50	Yes	FACW
2. <i>Viburnum</i> / Viburnum	5	No	NI
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Symphytotrichum</i> / Aster	60	Yes	NI
2. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW
3. <i>Solidago gigantea</i> / Smooth goldenrod	15	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	115	= Total Cover	
<b>Woody Vine Stratum</b> (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 120	x 2 = 240
FAC species 0	x 3 = 0
FACU species 5	x 4 = 20
UPL species 65	x 5 = 325
Column Totals: 190 (A)	585 (B)

Prevalence Index = B/A = 3.08

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W018-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

<input type="checkbox"/>	Polyvalue Below Surface (S8) <b>(LRR R, MLRA 149B)</b>
<input type="checkbox"/>	Thin Dark Surface (S9) <b>(LRR R, MLRA 149B)</b>
<input type="checkbox"/>	Loamy Mucky Mineral (F1) <b>(LRR K, L)</b>
<input type="checkbox"/>	Loamy Gleyed Matrix (F2)
<input type="checkbox"/>	Depleted Matrix (F3)
<input checked="" type="checkbox"/>	Redox Dark Surface (F6)
<input checked="" type="checkbox"/>	Depleted Dark Surface (F7)
<input type="checkbox"/>	Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W018-2U  
 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: 42.92187783 Long: -75.6805175 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 \_\_\_\_\_, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W018-2U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Centaurea jacea</i> / Brownray knapweed	15	Yes	FACU
2. <i>Symphyotrichum</i> / Aster	10	Yes	NI
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	Yes	FACU
4. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	Yes	FACU
5. <i>Oxalis corniculata</i> / Creeping wood sorrel	5	No	FACU
6. <i>Glycine max</i> / Soybean	5	No	NI
7. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
8. <i>Plantago</i> / Plantain	5	No	NI
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	65	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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: 4 (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	40	x 4 =	160
UPL species	20	x 5 =	100
Column Totals:	65	(A)	275 (B)

Prevalence Index = B/A = 4.23

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W018-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W018-2W  
 Investigator(s): BA RF 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 (%): 2-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92196933 Long: -75.6805825 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 \_\_\_\_\_, 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W018-2W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Occurs partially in fallowed ag field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W018-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Cyperus esculentus</i> / Nut grass	65	Yes	FACW
2. <i>Glycine max</i> / Soybean	10	No	NI
3. <i>Centaurea jacea</i> / Brownray knapweed	5	No	FACU
4. <i>Solidago gigantea</i> / Smooth goldenrod	5	No	FACW
5. <i>Ranunculus acris</i> / Acrid buttercup	2	No	FAC
6. <i>Plantago lanceolata</i> / Ribwort, English plantain	2	No	FACU
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	89	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>2</u>	x 3 = <u>6</u>
FACU species <u>7</u>	x 4 = <u>28</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>89</u> (A)	<u>224</u> (B)

Prevalence Index = B/A = 2.52

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W018-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/12/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W019-1U  
Investigator(s): BA RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Toeslope Local relief (concave, convex, none): convex Slope (%): 3-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92011067 Long: -75.67743417 Datum: WGS 1984  
Soil Map Unit Name: Hamlin 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
Toeslope in hemlock beech forest

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 12-W019-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	70	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	15	No	FACU
3. <i>Tilia americana</i> / American basswood	15	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	100	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Parathelypteris noveboracensis</i> / New york fern	10	Yes	FAC
2. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC
3. <i>Polystichum acrostichoides</i> / Christmas fern	5	Yes	FACU
4. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	2	No	NI
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	22	= Total Cover	
<b>Woody Vine Stratum</b> (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 15	x 3 = 45
FACU species 115	x 4 = 460
UPL species 2	x 5 = 10
Column Totals: 132 (A)	515 (B)

Prevalence Index = B/A = 3.9

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation \_\_\_\_\_

2 - Dominance Test is >50% \_\_\_\_\_

3 - Prevalence Index ≤3.0<sup>1</sup> \_\_\_\_\_

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain ) \_\_\_\_\_

<sup>1</sup>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: 12-W019-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smith		Sampling Date:	07/12/2023	
Applicant/Owner:	Liberty Renewables		State:	New York		Sampling Point:	12-W019-1W	
Investigator(s):	RF, BA, AT		Section, Township, Range:	Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County				
Landform (hillslope, terrace, etc):	Terrace		Local relief (concave, convex, none):	concave			Slope (%):	0-5
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.9200585		Long:	-75.677485	
Soil Map Unit Name:	Hamlin silt loam			NWI classification:				

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

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>  X  </u> No <u>      </u> If yes, optional Wetland Site ID: <u>                    12-W019-1W PFO                    </u>
Hydric Soil Present?	Yes	<u>X</u>	No	<u>      </u>	
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)					

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**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: 12-W019-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	25	Yes	FACW
2. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU
3. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	Yes	FACU
4. <i>Tilia americana</i> / American basswood	5	No	FACU
5. <i>Betula alleghaniensis</i> / Yellow birch	5	No	FAC
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes	FACW
2. <i>Athyrium angustum</i> / Northern lady fern	10	Yes	FAC
3. <i>Carex</i> / Sedge	5	No	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (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 55	x 2 = 110
FAC species 15	x 3 = 45
FACU species 35	x 4 = 140
UPL species 5	x 5 = 25
Column Totals: 110	(A) 320 (B)

Prevalence Index = B/A = 2.91

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

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



## SOIL

Sampling Point: 12-W019-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/12/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W020-1U  
Investigator(s): RF, BA, 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: 42.92040817 Long: -75.67753583 Datum: WGS 1984  
Soil Map Unit Name: Hamlin 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

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

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 12-W020-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
3. <i>Betula alleghaniensis</i> / Yellow birch	10	No	FAC
4. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Betula alleghaniensis</i> / Yellow birch	5	Yes	FAC
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
3. <i>Carex</i> / Sedge	5	Yes	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	15	= Total Cover	
<b>Woody Vine Stratum</b> (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 5	x 2 = 10
FAC species 15	x 3 = 45
FACU species 50	x 4 = 200
UPL species 5	x 5 = 25
Column Totals: 75 (A)	280 (B)

Prevalence Index = B/A = 3.73

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W020-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W020-1W  
 Investigator(s): RF, BA, 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: 42.92040667 Long: -75.67756067 Datum: WGS 1984  
 Soil Map Unit Name: Hamlin 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W020-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Impatiens capensis</i> / Spotted jewelweed	80	Yes		FACW
2. <i>Symphyotrichum</i> / Aster	10	No		NI
3. <i>Oxalis corniculata</i> / Creeping wood sorrel	5	No		FACU
4. <i>Carex</i> / Sedge	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: 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	0	x 1 =	0	
FACW species	80	x 2 =	160	
FAC species	0	x 3 =	0	
FACU species	5	x 4 =	20	
UPL species	15	x 5 =	75	
Column Totals:	100	(A)	255	(B)

Prevalence Index = B/A = 2.55

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W020-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W021-1U  
 Investigator(s): RF, BA, 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9214405 Long: -75.6806435 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W021-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Symphyotrichum</i> / Aster	20	Yes	NI
2. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	15	Yes	UPL
3. <i>Plantago</i> / Plantain	15	Yes	NI
4. <i>Ambrosia artemisiifolia</i> / Annual ragweed, Common ragweed	10	No	FACU
5. <i>Zea mays</i> / Corn	10	No	NI
6. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU
7. <i>Leucanthemum vulgare</i> / Oxe eye daisy, Ox-eye daisy	2	No	UPL
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	77	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	62	x 5 =	310	
Column Totals:	77	(A)	370	(B)

Prevalence Index = B/A = 4.81

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W021-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W021-1W  
 Investigator(s): BA 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 (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92139133 Long: -75.68063 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W021-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland within a fallow field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W021-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	

Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Cyperus esculentus</i> / Nut grass	75	Yes	FACW
2.	<i>Ambrosia artemisiifolia</i> / Annual ragweed, Common ragweec	15	No	FACU
3.	<i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	2	No	FACU
4.	<i>Zea mays</i> / Corn	2	No	NI
5.	<i>Plantago lanceolata</i> / Ribwort, English plantain	2	No	FACU
6.	<i>Solidago gigantea</i> / Smooth goldenrod	2	No	FACW
7.	<i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	1	No	UPL
8.				
9.				
10.				
11.				
12.				
		99	= Total Cover	

Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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	0	x 1 =	0
FACW species	77	x 2 =	154
FAC species	0	x 3 =	0
FACU species	19	x 4 =	76
UPL species	3	x 5 =	15
Column Totals:	99	(A)	245 (B)

Prevalence Index = B/A = 2.47

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 12-W021-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W022-1U  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93381883 Long: -75.75757083 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> 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? 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: 12-W022-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Malus</i> / Apple	20	Yes	NI
2. <i>Picea glauca</i> / White spruce	5	No	FACU
3. <i>Crataegus</i> / Hawthorn	5	No	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Viburnum</i> / Viburnum	5	Yes	NI
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Fragaria virginiana</i> / Mountain strawberry	30	Yes	FACU
2. <i>Geum canadense</i> / White avens	20	Yes	FAC
3. <i>Symphotrichum</i> / Aster	15	Yes	NI
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW
5. <i>Carex</i> / Sedge	5	No	NI
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	75	= Total Cover	
<b>Woody Vine Stratum</b> (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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 20	x 3 = 60
FACU species 35	x 4 = 140
UPL species 50	x 5 = 250
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<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W022-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W022-1W  
 Investigator(s): RF, 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93377433 Long: -75.75758367 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W022-1W POW</u>
Remarks: (Explain alternative procedures here or in a separate report.) Man-made pond with gravel bottom	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>12</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W022-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 5 Feet)			
1. <i>Leersia oryzoides</i> / Rice cutgrass	10	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	
(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 <span style="float: right;">10</span>	x 1 = <span style="float: right;">10</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">10 (A)</span>	<span style="float: right;">10 (B)</span>

Prevalence Index = B/A = 1.0

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W022-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 0

Hydric Soil Present?      Yes      X      No

Remarks:

Unable to obtain soil sample due to gravel bottom of pond.

# 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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W023-1U  
 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93450467 Long: -75.7575445 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W023-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Pinus strobus</i> / Eastern white pine	60	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	10	No	FACU	
3. <i>Picea rubens</i> / Red spruce	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	80	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	15	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Valeriana officinalis</i> / Garden valerian	40	Yes	NI	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW	
3. <i>Fragaria virginiana</i> / Mountain strawberry	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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 25	x 2 = 50
FAC species 0	x 3 = 0
FACU species 90	x 4 = 360
UPL species 40	x 5 = 200
Column Totals: 155 (A)	610 (B)

Prevalence Index = B/A = 3.94

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W023-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root 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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W023-1W  
 Investigator(s): RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93439433 Long: -75.75756317 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W023-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W023-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Carex</i> / Sedge	25	Yes	FACW
2. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	20	Yes	OBL
3. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	25	x 2 =	50
FAC species	5	x 3 =	15
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:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W023-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 12

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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W024-1U  
 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93478533 Long: -75.7580195 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W024-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Symphyotrichum</i> / Aster	40	Yes	NI	
2. <i>Fragaria virginiana</i> / Mountain strawberry	30	Yes	FACU	
3. <i>Leucanthemum vulgare</i> / Oxe eye daisy, Ox-eye daisy	10	No	UPL	
4. <i>Scirpus atrovirens</i> / Green bulrush	2	No	OBL	
5. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	2	No	OBL	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	84	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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 <span style="float: right;">4</span>	x 1 = <span style="float: right;">4</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">30</span>	x 4 = <span style="float: right;">120</span>
UPL species <span style="float: right;">50</span>	x 5 = <span style="float: right;">250</span>
Column Totals: <span style="float: right;">84 (A)</span>	<span style="float: right;">374 (B)</span>

Prevalence Index = B/A = 4.45

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W024-1U

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

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

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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 3 inches. Likely fill from man-made pond

# 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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W024-1W  
 Investigator(s): RF, 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.934699 Long: -75.75801 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W024-1W POW</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>24+</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W024-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
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. <i>Leersia oryzoides</i> / Rice cutgrass	10	Yes		OBL
2. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattai	5	Yes		OBL
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	15	x 1 =	15
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:	15	(A)	15 (B)

Prevalence Index = B/A = 1.0

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W024-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Could not obtain soil sample due to gravel bottom of pond.



# 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: 12-W025-1U  
 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 (%): 10-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93908933 Long: -75.69380433 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 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 _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation recently mowed, front yard of residential property.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W025-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Malus</i> / Apple	10	Yes	NI
2. <i>Picea abies</i> / Norway spruce	5	Yes	NI
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Poa</i> / Bluegrass	60	Yes	NI
2. <i>Plantago major</i> / Common plantain	10	No	FACU
3. <i>Trifolium repens</i> / White clover	10	No	FACU
4. <i>Trifolium pratense</i> / Red clover	10	No	FACU
5. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	100	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	

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

**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 40	x 4 = 160
UPL species 75	x 5 = 375
Column Totals: 115 (A)	535 (B)

Prevalence Index = B/A = 4.65

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W025-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/19/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W025-1W  
 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 (%): 10-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93907033 Long: -75.69380583 Datum: WGS 1984  
 Soil Map Unit Name: 42.939066°N 75.693778°W 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W025-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>0.5</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W025-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Carex</i> / Sedge	30	Yes	FAC
2. <i>Polygonum cuspidatum</i> / Japanese knotweed	30	Yes	NI
3. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	25	Yes	FACW
4. <i>Mentha arvensis</i> / American wild mint, Field mint	25	Yes	FACW
5. <i>Rumex crispus</i> / Curly dock	5	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	50	x 2 =	100
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	30	x 5 =	150
Column Totals:	115	(A)	355 (B)

Prevalence Index = B/A = 3.09

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 12-W025-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W026-2U  
 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): none Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93861617 Long: -75.69480933 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W026-2U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Rubus occidentalis</i> / Black raspberry	25	Yes	NI
2. <i>Chenopodium album</i> / Lambs quarters, Lamb's quarters	20	Yes	FACU
3. <i>Galium</i> / Bedstraw	15	Yes	FAC
4. <i>Centaurea jacea</i> / Brownray knapweed	15	Yes	FACU
5. <i>Arctium minus</i> / Common burdock	10	No	FACU
6. <i>Valeriana officinalis</i> / Garden valerian	10	No	NI
7. <i>Plantago lanceolata</i> / Ribwort, English plantain	5	No	FACU
8. <i>Fragaria virginiana</i> / Mountain strawberry	5	No	FACU
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	105	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	15	x 3 =	45	
FACU species	55	x 4 =	220	
UPL species	35	x 5 =	175	
Column Totals:	105	(A)	440	(B)

Prevalence Index = B/A = 4.19

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W026-2U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/3	100					Silt Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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

# 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: 07/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W026-2W  
 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): concave Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93870333 Long: -75.69485233 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W026-2W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Salix</i> / Willow	15	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
		15	= Total Cover	
Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Cornus amomum</i> / Silky dogwood	35	Yes	FACW
2.	<i>Euthamia graminifolia</i> / Flat-top goldentop	25	Yes	FAC
3.	<i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
4.	<i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	10	No	OBL
5.	<i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC
6.	<i>Phleum alpinum</i> / Timothy grass, Alpine timothy, Mountain timothy	5	No	FACW
7.				
8.				
9.				
10.				
11.				
12.				
		95	= Total Cover	
Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Vitis riparia</i> / River-bank grape	5	Yes	FAC
2.				
3.				
4.				
		5	= 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	10	x 1 =	10
FACW species	40	x 2 =	80
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115	(A)	285 (B)

Prevalence Index = B/A = 2.48

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W026-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 12-W027-1U  
 Investigator(s): RF RN Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94459983 Long: -75.76477867 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 _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W027-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	30	Yes	FACU	
2. <i>Elymus repens</i> / Quack grass	20	Yes	FACU	
3. <i>Trifolium repens</i> / White clover	15	Yes	FACU	
4. <i>Centaurea jacea</i> / Brownray knapweed	15	Yes	FACU	
5. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU	
6. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	100	= Total Cover		

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)  
  
 Total Number of Dominant Species Across All Strata: 4 (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	10	x 3 =	30	
FACU species	90	x 4 =	360	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	390	(B)

Prevalence Index = B/A = 3.9

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W027-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 8 inches, multiple locations sampled



# 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: 12-W027-1W  
 Investigator(s): RF RN Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave Slope (%): 3-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.944465 Long: -75.764771 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W027-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>10+</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W027-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	30	Yes	OBL	
2. <i>Ranunculus acris</i> / Acrid buttercup	20	Yes	FAC	
3. <i>Scirpus</i> / Bulrush	20	Yes		
4. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No	OBL	
5. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	5	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	80	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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: 3 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:		Multiply by:		
OBL species	35	x 1 =	35	
FACW species	0	x 2 =	0	
FAC species	20	x 3 =	60	
FACU species	5	x 4 =	20	
UPL species	20	x 5 =	100	
Column Totals:	80	(A)	215	(B)

Prevalence Index = B/A = 2.69

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
X 3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W027-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W028-1U  
 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: 42.9345415 Long: -75.76429633 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W028-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Pinus resinosa</i> / Red pine	40	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
3. <i>Hamamelis virginiana</i> / American witch-hazel	2	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	57	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Prunus serotina</i> / Black cherry	20	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Geum canadense</i> / White avens	30	Yes	FAC
2. <i>Symphyotrichum</i> / Aster	15	Yes	NI
3. <i>Fragaria</i> / Strawberry	15	Yes	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	60	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (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 15	x 2 = 30
FAC species 30	x 3 = 90
FACU species 62	x 4 = 248
UPL species 30	x 5 = 150
Column Totals: 137 (A)	518 (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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W028-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root 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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W028-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93463217 Long: -75.7643705 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W028-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W028-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. <i>Cornus amomum</i> / Silky dogwood	35	Yes		FACW
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	20	Yes		FACU
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	55	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	60	Yes		OBL
2. <i>Symphotrichum</i> / Aster	15	No		NI
3. <i>Solidago gigantea</i> / Smooth goldenrod	15	No		FACW
4. <i>Ranunculus acris</i> / Acrid buttercup	10	No		FAC
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	100	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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: 3 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>155</u>	(A) <u>345</u> (B)

Prevalence Index = B/A = 2.23

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W028-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W029-1U  
 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: 42.93467817 Long: -75.7637645 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

 Sampling Point: 12-W029-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )				
1. <i>Picea abies</i> / Norway spruce	50	Yes	NI	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	60	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	25	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	15	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )				
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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>50</u>	x 5 = <u>250</u>
Column Totals: <u>100</u>	(A) <u>410</u> (B)

Prevalence Index = B/A = 4.1

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

   2 - Dominance Test is >50%

   3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W029-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Root 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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W029-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93470483 Long: -75.76379833 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W029-1W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W029-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	25	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	25	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Cornus amomum</i> / Silky dogwood	40	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	40	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Geum laciniatum</i> / Rough avens	30	Yes	FACW	
2. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	20	Yes	OBL	
3. <i>Solidago gigantea</i> / Smooth goldenrod	15	No	FACW	
4. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC	
5. <i>Symphyotrichum</i> / Aster	10	No	NI	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	85	= Total Cover		
<b>Woody Vine Stratum</b> (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 20	x 1 = 20
FACW species 110	x 2 = 220
FAC species 10	x 3 = 30
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 150 (A)	320 (B)

Prevalence Index = B/A = 2.13

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W029-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W030-1U  
 Investigator(s): RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9364745 Long: -75.76380917 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W030-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Cichorium intybus</i> / Chicory	40	Yes	FACU
2. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	30	Yes	UPL
3. <i>Elymus repens</i> / Quack grass	15	No	FACU
4. <i>Achillea millefolium</i> / Yarrow	15	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">70</span>	x 4 = <span style="float: right;">280</span>
UPL species <span style="float: right;">30</span>	x 5 = <span style="float: right;">150</span>
Column Totals: <span style="float: right;">100 (A)</span>	<span style="float: right;">430 (B)</span>

Prevalence Index = B/A = 4.3

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 12-W030-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W030-1W  
Investigator(s): RF, 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: 42.93646983 Long: -75.763804 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 \_\_\_\_\_  
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: 12-W030-1W

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

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: 12-W030-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattail	30	Yes	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	30	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	30	x 1 =	30	
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:	30	(A)	30	(B)

Prevalence Index = B/A = 1.0

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 12-W030-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Could not get soil sample.

# 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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W030-2U  
 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: 42.93739167 Long: -75.76484333 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W030-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Cichorium intybus</i> / Chicory	80	Yes	FACU
2. <i>Dactylis glomerata</i> / Orchardgrass	15	No	FACU
3. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU
4. <i>Plantago lanceolata</i> / Ribwort, English plantain	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 12-W030-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 08/09/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W030-2W  
Investigator(s): RF, 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 (%): 0-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9373205 Long: -75.76492983 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W030-2W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): <u>2</u>
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>0</u>
(includes capillary fringe)		

**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: 12-W030-2W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Scirpus atrovirens</i> / Green bulrush	30	Yes	OBL
2. <i>Carex lurida</i> / Shallow sedge	20	Yes	OBL
3. <i>Mentha</i> / Mint	15	No	FACW
4. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	10	No	OBL
5. <i>Iris</i> / Iris	5	No	NI
6. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	5	No	FACU
7. <i>Eupatorium perfoliatum</i> / Common boneset	5	No	FACW
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	60	x 1 =	60	
FACW species	20	x 2 =	40	
FAC species	0	x 3 =	0	
FACU species	5	x 4 =	20	
UPL species	5	x 5 =	25	
Column Totals:	90	(A)	145	(B)

Prevalence Index = B/A = 1.61

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 12-W030-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W031-1U  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.935137 Long: -75.7634785 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 X, Soil X, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W031-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Zea mays</i> / Corn	80	Yes	NI
2. <i>Elymus repens</i> / Quack grass	40	Yes	FACU
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	130	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">50</span>	x 4 = <span style="float: right;">200</span>
UPL species <span style="float: right;">80</span>	x 5 = <span style="float: right;">400</span>
Column Totals: <span style="float: right;">130 (A)</span>	<span style="float: right;">600 (B)</span>

Prevalence Index = B/A = 4.62

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W031-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W031-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93512433 Long: -75.76339783 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W031-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W031-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	30	Yes	OBL	
2. <i>Scirpus atrovirens</i> / Green bulrush	25	Yes	OBL	
3. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU	
4. <i>Carex lurida</i> / Shallow sedge	10	No	OBL	
5. <i>Symphyotrichum</i> / Aster	10	No	NI	
6. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	90	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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	65	x 1 =	65	
FACW species	0	x 2 =	0	
FAC species	5	x 3 =	15	
FACU species	10	x 4 =	40	
UPL species	10	x 5 =	50	
Column Totals:	90	(A)	170	(B)

Prevalence Index = B/A = 1.89

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W031-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W032-1U  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94889017 Long: -75.77372617 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W032-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Zea mays</i> / Corn	90	Yes	NI	
2. <i>Oxalis corniculata</i> / Creeping wood sorrel	15	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	105	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	15	x 4 =	60	
UPL species	90	x 5 =	450	
Column Totals:	105	(A)	510	(B)

Prevalence Index = B/A = 4.86

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W032-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W032-1W  
 Investigator(s): RF, 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: 42.94896433 Long: -75.77373317 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W032-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.) active corn field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

# VEGETATION - Use scientific names of plants.

Sampling Point: 12-W032-1W

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. _____	_____	_____	_____	
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: 0 (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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">0 (A)</span>	<span style="float: right;">0 (B)</span>

Prevalence Index = B/A = 0.0

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 12-W032-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- \_\_\_\_\_ 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)

<sup>3</sup>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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W033-1U  
 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: 42.90903167 Long: -75.68676267 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W033-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Crataegus</i> / Hawthorn	40	Yes	NI
2. <i>Fraxinus americana</i> / White ash	15	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago canadensis</i> / Canada goldenrod	60	Yes	FACU
2. <i>Symphyotrichum</i> / Aster	10	No	NI
3. <i>Rubus</i> / Blackberry	10	No	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80	= Total Cover	
<b>Woody Vine Stratum</b> (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	75	x 4 =	300	
UPL species	60	x 5 =	300	
Column Totals:	135	(A)	600	(B)

Prevalence Index = B/A = 4.44

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 12-W033-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root refusal at 10in

# 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W033-1W  
 Investigator(s): RF 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: 42.909056 Long: -75.686633 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W033-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W033-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Salix</i> / Willow	25	Yes	FACW	
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW	
3. <i>Rhamnus cathartica</i> / European buckthorn	5	No	FAC	
4.				
5.				
6.				
7.				
	35	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW	
2. <i>Symphytotrichum lateriflorum</i> / Farewell-summer	15	Yes	FAC	
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
4. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC	
5. <i>Rubus</i> / Blackberry	5	No	NI	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	80	= Total Cover		
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 80	x 2 = 160
FAC species 40	x 3 = 120
FACU species 0	x 4 = 0
UPL species 5	x 5 = 25
Column Totals: 125 (A)	305 (B)

Prevalence Index = B/A = 2.44

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W033-1W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	7.5YR 3/2	80	5YR 4/4	5	C	PL,M	Clay Loam	
0-14			10YR 5/2	15	D	M	Clay Loam	
14-18	7.5YR 5/2	90	10YR 5/4	10	C	M	Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:



# 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W034-1U  
 Investigator(s): RF 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: 42.90878533 Long: -75.6868475 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W034-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Larix decidua</i> / European larch	5	Yes	NI	
2.				
3.				
4.				
5.				
6.				
7.				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Symphyotrichum</i> / Aster	25	Yes	NI	
2. <i>Euthamia graminifolia</i> / Flat-top goldentop	10	Yes	FAC	
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	Yes	FACU	
4. <i>Pinus resinosa</i> / Red pine	2	No	FACU	
5. <i>Populus tremuloides</i> / Quaking aspen	2	No	FACU	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	49	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
	0	= Total Cover		

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

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
  
 Total Number of Dominant Species Across All Strata: 5 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (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 24	x 4 = 96
UPL species 30	x 5 = 150
Column Totals: 64 (A)	276 (B)

Prevalence Index = B/A = 4.31

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 12-W034-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W034-1W  
 Investigator(s): RF 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.908737 Long: -75.68685433 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W034-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W034-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Scirpus cyperinus</i> / Woolgrass	30	Yes	OBL
2. <i>Symphyotrichum</i> / Aster	10	Yes	NI
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes	FACW
4. <i>Euthamia graminifolia</i> / Flat-top goldentop	10	Yes	FAC
5. <i>Symphyotrichum lateriflorum</i> / Farewell-summer	10	Yes	FAC
6. <i>Eupatorium perfoliatum</i> / Common boneset	5	No	FACW
7. <i>Eutrochium maculatum</i> / Spotted trumpetweed	5	No	OBL
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	80	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	35	x 1 =	35
FACW species	15	x 2 =	30
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	80	(A)	175 (B)

Prevalence Index = B/A = 2.19

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 12-W034-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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/compaction 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W035-1U  
 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: 42.90786 Long: -75.686862 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W035-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	70	Yes	FAC	
2. <i>Symphyotrichum novae-angliae</i> / New england american-ast	10	No	FACW	
3. <i>Symphyotrichum lateriflorum</i> / Farewell-summer	10	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	90	= Total Cover		

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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	0	x 1 =	0	
FACW species	10	x 2 =	20	
FAC species	80	x 3 =	240	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	90	(A)	260	(B)

Prevalence Index = B/A = 2.89

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W035-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W035-1W  
 Investigator(s): RF 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: 42.9079435 Long: -75.686896 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W035-1W POW</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>20</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W035-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Nasturtium officinale</i> / Watercress, Water cress	80	Yes	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	80	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	80	x 1 =	80	
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:	80	(A)	80	(B)

Prevalence Index = B/A = 1.0

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W035-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

# 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W035-2U  
 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.908125 Long: -75.68715917 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W035-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	25	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1.				
2.				
3.				
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: 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 75	x 4 = 300
UPL species 5	x 5 = 25
Column Totals: 95	(A) 370 (B)

Prevalence Index = B/A = 3.89

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W035-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 8"



# 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: 09/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W035-2W  
 Investigator(s): RF 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 (%): 0-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.90813283 Long: -75.68705683 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W035-2W</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W035-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Larix laricina</i> / American larch	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Viburnum</i> / Viburnum	10	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Phragmites australis</i> / Common reed	50	Yes	FACW
2. <i>Euthamia graminifolia</i> / Flat-top goldentop	15	No	FAC
3. <i>Eutrochium maculatum</i> / Spotted trumpetweed	10	No	OBL
4. <i>Symphyotrichum lateriflorum</i> / Farewell-summer	5	No	FAC
5. <i>Symphyotrichum novae-angliae</i> / New england american-ast	5	No	FACW
6. <i>Eupatorium perfoliatum</i> / Common boneset	5	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
<b>Woody Vine Stratum</b> (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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 10	x 1 = 10
FACW species 70	x 2 = 140
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 110 (A)	260 (B)

Prevalence Index = B/A = 2.36

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W035-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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

# 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W036-1U  
 Investigator(s): RF, 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: 42.914291 Long: -75.699132 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W036-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	2	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	2	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Centaurea jacea</i> / Brownray knapweed	20	Yes	FACU	
2. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	20	Yes	FACU	
3. <i>Galium</i> / Bedstraw	15	Yes	NI	
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	15	Yes	FACU	
5. <i>Symphyotrichum</i> / Aster	15	Yes	NI	
6. <i>Fragaria</i> / Strawberry	10	No	NI	
7. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
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: 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 5	x 3 = 15
FACU species 57	x 4 = 228
UPL species 40	x 5 = 200
Column Totals: 102 (A)	443 (B)

Prevalence Index = B/A = 4.34

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W036-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W036-1W  
 Investigator(s): RF 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: 42.914284 Long: -75.699229 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W036-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W036-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
2. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	15	Yes	OBL
3. <i>Euthamia graminifolia</i> / Flat-top goldentop	10	Yes	FAC
4. <i>Solidago altissima</i> / Canada goldenrod	10	Yes	FACU
5. <i>Symphytotrichum novae-angliae</i> / New england american-ast	10	Yes	FACW
6. <i>Scirpus cyperinus</i> / Woolgrass	10	Yes	OBL
7. <i>Viburnum</i> / Viburnum	2	No	NI
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	77	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	

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

**Dominance Test worksheet:**

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:		
OBL species	25	x 1 =	25	
FACW species	30	x 2 =	60	
FAC species	10	x 3 =	30	
FACU species	10	x 4 =	40	
UPL species	2	x 5 =	10	
Column Totals:	77	(A)	165	(B)

Prevalence Index = B/A = 2.14

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 12-W036-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 12

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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W037-1U  
 Investigator(s): RF 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: 42.91280283 Long: -75.69899083 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W037-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	50	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fragaria</i> / Strawberry	10	Yes	NI
2. <i>Symphotrichum</i> / Aster	10	Yes	NI
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	No	FACU
4. <i>Rubus</i> / Blackberry	5	No	NI
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	= Total Cover	
<b>Woody Vine Stratum</b> (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	10	x 2 =	20
FAC species	50	x 3 =	150
FACU species	5	x 4 =	20
UPL species	25	x 5 =	125
Column Totals:	90	(A)	315 (B)

Prevalence Index = B/A = 3.5

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
   2 - Dominance Test is >50%  
   3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W037-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root and 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W037-1W  
 Investigator(s): RF, 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: 42.91285233 Long: -75.6989805 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W037-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W037-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Rhamnus cathartica</i> / European buckthorn	35	Yes	FAC
2.	<i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
3.				
4.				
5.				
6.				
7.				
		45	= Total Cover	
Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW
2.	<i>Symphytotrichum</i> / Aster	15	Yes	NI
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		55	= Total Cover	
Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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	50	x 2 =	100
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	100	(A)	280 (B)

Prevalence Index = B/A = 2.8

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 X 2 - Dominance Test is >50%  
 X 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W037-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 10

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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W037-2U  
 Investigator(s): RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope shoulder Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9129275 Long: -75.69889633 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W037-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Centaurea jacea</i> / Brownray knapweed	15	Yes	FACU	
2. <i>Galium</i> / Bedstraw	15	Yes	NI	
3. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	10	No	FACU	
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU	
5. <i>Dactylis</i> / Orchardgrass	5	No	NI	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	55	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 3 =	0	
FACU species	35	x 4 =	140	
UPL species	20	x 5 =	100	
Column Totals:	55	(A)	240	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W037-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W037-2W  
 Investigator(s): RF 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: 42.91294783 Long: -75.6990065 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W037-2W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>6</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W037-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Onoclea sensibilis</i> / Sensitive fern	50	Yes	FACW
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	30	Yes	FACW
3. <i>Typha latifolia</i> / Broadleaf cattail, Broad-leaved cattail	25	No	OBL
4. <i>Eutrochium maculatum</i> / Spotted trumpetweed	15	No	OBL
5. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	No	OBL
6. <i>Symphyotrichum</i> / Aster	5	No	NI
7.			
8.			
9.			
10.			
11.			
12.			
	135	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>50</u>	x 1 = <u>50</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>135</u>	(A) <u>235</u> (B)

Prevalence Index = B/A = 1.74

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 12-W037-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

\_\_\_\_\_ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Bedrock  
Depth (inches): 8

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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W038-1U  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92802 Long: -75.7023503 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W038-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Dactylis</i> / Orchardgrass	25	Yes	NI
2. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	20	Yes	FACU
3. <i>Trifolium pratense</i> / Red clover	20	Yes	FACU
4. <i>Trifolium repens</i> / White clover	15	No	FACU
5. <i>Setaria pumila</i> / Yellow bristlegrass	10	No	FAC
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	10	x 3 =	30
FACU species	55	x 4 =	220
UPL species	25	x 5 =	125
Column Totals:	90	(A)	375 (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<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W038-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W038-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9280515 Long: -75.70246033 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W038-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W038-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Salix</i> / Willow	15	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Symphyotrichum</i> / Aster	40	Yes	FAC	
2. <i>Eutrochium maculatum</i> / Spotted trumpetweed	15	Yes	OBL	
3. <i>Scirpus cyperinus</i> / Woolgrass	10	No	OBL	
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC	
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: 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 25	x 1 = 25
FACW species 15	x 2 = 30
FAC species 45	x 3 = 135
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 85	(A) 190 (B)

Prevalence Index = B/A = 2.24

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W038-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W039-1U  
 Investigator(s): RF, 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: 42.92651 Long: -75.70313167 Datum: WGS 1984  
 Soil Map Unit Name: Phelps gravelly silt loam, 0 to 3 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Similar hydrology and soil to wetland point. Distinct change in vegetation between upland and wetland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W039-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Plantago lanceolata</i> / Ribwort, English plantain	15	Yes	FACU	
2. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	10	Yes	UPL	
3. <i>Trifolium repens</i> / White clover	10	Yes	FACU	
4. <i>Solidago canadensis</i> / Canada goldenrod	10	Yes	FACU	
5. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	Yes	FACU	
6. <i>Coronilla</i> / Crownvetch	5	No	NI	
7. <i>Achillea millefolium</i> / Yarrow	5	No	FACU	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	65	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	50	x 4 =	200	
UPL species	15	x 5 =	75	
Column Totals:	65	(A)	275	(B)

Prevalence Index = B/A = 4.23

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W039-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5".



# 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W039-1W  
 Investigator(s): RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92658783 Long: -75.70307117 Datum: WGS 1984  
 Soil Map Unit Name: Phelps gravelly silt loam, 0 to 3 percent slopes NWI classification: PSS1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W039-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W039-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	60	Yes	OBL	
2. <i>Carex</i> / Sedge	10	No	NI	
3. <i>Eutrochium maculatum</i> / Spotted trumpetweed	10	No	OBL	
4. <i>Eupatorium perfoliatum</i> / Common boneset	5	No	FACW	
5. <i>Symphytotrichum</i> / Aster	5	No	NI	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	90	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	70	x 1 =	70	
FACW species	5	x 2 =	10	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	15	x 5 =	75	
Column Totals:	90	(A)	155	(B)

Prevalence Index = B/A = 1.72

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W039-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W039-2U  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92697067 Long: -75.70253283 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W039-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Dactylis</i> / Orchardgrass	25	Yes	NI
2. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	20	Yes	FACU
3. <i>Trifolium pratense</i> / Red clover	20	Yes	FACU
4. <i>Trifolium repens</i> / White clover	15	No	FACU
5. <i>Setaria pumila</i> / Yellow bristlegrass	10	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	10	x 3 =	30
FACU species	55	x 4 =	220
UPL species	25	x 5 =	125
Column Totals:	90	(A)	375 (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<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W039-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W039-2W  
 Investigator(s): RF AT 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: 42.92697283 Long: -75.702552 Datum: WGS 1984  
 Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification: PSS1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>12-W039-2U PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W039-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	80	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Solidago gigantea</i> / Smooth goldenrod	10	Yes	FACW
2. <i>Eutrochium maculatum</i> / Spotted trumpetweed	2	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	12	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>2</u>	x 1 = <u>2</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>92</u>	(A) <u>182</u> (B)

Prevalence Index = B/A = 1.98

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W039-2W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 11/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W043-1U  
 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): none Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9579635 Long: -75.76703917 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Active agriculture field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W043-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Zea mays</i> / Corn	80	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	0	x 4 =	0
UPL species	80	x 5 =	400
Column Totals:	80	(A)	400 (B)

Prevalence Index = B/A = 5.0

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W043-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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.



# 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: 11/16/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W043-1W  
 Investigator(s): RF 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95805433 Long: -75.767027 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W040-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W043-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Salix</i> / Willow		50	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
		50	= Total Cover	

Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Symphyotrichum</i> / Aster		30	Yes	NI
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny		20	Yes	FACW
3. <i>Solidago gigantea</i> / Smooth goldenrod		15	Yes	FACW
4. <i>Solidago canadensis</i> / Canada goldenrod		10	No	FACU
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		75	= Total Cover	

Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		0	= Total Cover	

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

**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	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	30	x 5 =	150
Column Totals:	125	(A)	360 (B)

Prevalence Index = B/A = 2.88

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 12-W043-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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.

# 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: 10/30/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W044-1U  
 Investigator(s): RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91175317 Long: -75.69859433 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W044-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Dactylis glomerata</i> / Orchardgrass	35	Yes	FACU
2. <i>Symphyotrichum</i> / Aster	10	Yes	NI
3. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	10	Yes	UPL
4. <i>Centaurea jacea</i> / Brownray knapweed	10	Yes	FACU
5. <i>Plantago lanceolata</i> / Ribwort, English plantain	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	70	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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: 4 (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 <u>0</u>	x 1 =	<u>0</u>
FACW species <u>0</u>	x 2 =	<u>0</u>
FAC species <u>0</u>	x 3 =	<u>0</u>
FACU species <u>50</u>	x 4 =	<u>200</u>
UPL species <u>20</u>	x 5 =	<u>100</u>
Column Totals: <u>70</u>	(A)	<u>300</u> (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<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 12-W044-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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.



# 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: 10/30/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 12-W044-1W  
 Investigator(s): RF 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.911722 Long: -75.69860367 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>12-W040-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Roadside ditch with wetland characteristics.</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 12-W044-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Symphyotrichum</i> / Aster	50	Yes		FACW
2. <i>Cornus sericea</i> / American dogwood	15	No		NI
3. <i>Eutrochium maculatum</i> / Spotted trumpetweed	10	No		OBL
4. <i>Galium aparine</i> / Cleavers, Goose grass	2	No		FACU
5. <i>Salix</i> / Willow	2	No		NI
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	79	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	50	x 2 =	100	
FAC species	0	x 3 =	0	
FACU species	2	x 4 =	8	
UPL species	17	x 5 =	85	
Column Totals:	79	(A)	203	(B)

Prevalence Index = B/A = 2.57

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 12-W044-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 fill refusal.

## 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: 06/27/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-UPL001  
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 (%): 6-11  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92802514 Long: -75.70190909 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Successional field with upland veg	

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 23-UPL001

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Indicator Status	1.					2.					3.					4.					5.					6.					7.							<u>0</u>	= Total Cover		Sapling/Shrub Stratum	(Plot size: <u>15 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1.					2.					3.					4.					5.					6.					7.							<u>0</u>	= Total Cover		Herb Stratum	(Plot size: <u>5 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1.	<i>Phleum pratense</i> / Common timothy, Cultivated timothy	35	Yes	FACU	2.	<i>Dactylis glomerata</i> / Orchardgrass	25	Yes	FACU	3.	<i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU	4.	<i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	5	No	FACU	5.	<i>Trifolium repens</i> / White clover	5	No	FACU	6.	<i>Plantago major</i> / Common plantain	3	No	FACU	7.					8.					9.					10.					11.					12.							<u>83</u>	= Total Cover		Woody Vine Stratum	(Plot size: <u>30 Feet</u> )	Absolute % Cover	Dominant Species?	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(7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b>      Yes <u>    </u>      No <u>  X  </u></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>83</u>	x 4 = <u>332</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>83</u> (A)	<u>332</u> (B)
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## SOIL

Sampling Point: 23-UPL001

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-UPL-002  
 Investigator(s): RN, 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 (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93183017 Long: -75.69868283 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 X, Soil X, 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Actively logged area	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Low part of a valley		

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 23-UPL-002

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )			
1. <u><i>Acer saccharum</i> / Sugar maple</u>	30	Yes	FACU
2. <u><i>Tilia americana</i> / American basswood</u>	15	Yes	FACU
3. <u><i>Fraxinus pennsylvanica</i> / Green ash</u>	5	No	FACW
4. <u><i>Carya ovata</i> / Shag-bark hickory</u>	5	No	FACU
5. _____			
6. _____			
7. _____			
	55	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )			
1. <u><i>Carya ovata</i> / Shag-bark hickory</u>	5	Yes	FACU
2. <u><i>Acer saccharum</i> / Sugar maple</u>	5	Yes	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )			
1. <u><i>Rubus</i> / Blackberry</u>	15	Yes	NI
2. <u><i>Fragaria vesca</i> / Wild strawberry, Wood strawberry</u>	10	Yes	UPL
3. <u><i>Geum canadense</i> / White avens</u>	5	Yes	FAC
4. <u><i>Athyrium angustum</i> / Northern lady fern</u>	5	Yes	FAC
5. <u><i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass</u>	5	Yes	OBL
6. <u><i>Rhamnus cathartica</i> / European buckthorn</u>	5	Yes	FAC
7. <u><i>Alliaria petiolata</i> / Garlic-mustard</u>	5	Yes	FACU
8. <u><i>Arisaema triphyllum</i> / Jack-in-the-pulpit</u>	2	No	FAC
9. <u><i>Dryopteris</i> / Woodfern</u>	2	No	NI
10. _____			
11. _____			
12. _____			
	54	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )			
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: 11 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 36.4 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:		Multiply by:		
OBL species	5	x 1 =	5	
FACW species	5	x 2 =	10	
FAC species	17	x 3 =	51	
FACU species	65	x 4 =	260	
UPL species	27	x 5 =	135	
Column Totals:	119	(A)	461	(B)

Prevalence Index = B/A = 3.87

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-UPL-002

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	100					Clay Loam	
12-18	10YR 3/2	40					Clay Loam	
12-18	10YR 5/3	60					Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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: 05/31/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W002-1U  
Investigator(s): JB 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 (%): 0-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94509383 Long: -75.7547145 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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 shrubland. High density of invasive species.

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 23-W002-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	25	Yes	FACU
2. <i>Salix</i> / Willow	15	Yes	FACW
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>40</u>	= Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )			
1. <i>Solidago canadensis</i> / Canada goldenrod	50	Yes	FACU
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	30	Yes	FACW
3. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	<u>85</u>	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
	<u>0</u>	= 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	45	x 2 =	90	
FAC species	5	x 3 =	15	
FACU species	75	x 4 =	300	
UPL species	0	x 5 =	0	
Column Totals:	125	(A)	405	(B)

Prevalence Index = B/A = 3.24

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W002-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 05/31/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W002-1W  
 Investigator(s): JB RN RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flood plain Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94515533 Long: -75.75475167 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W002-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.) Flood plain to DEC C class stream. Topography break leading down to wetland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W002-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1. <i>Salix</i> / Willow	40	Yes		FACW
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	30	Yes		FACU
3. <i>Cornus amomum</i> / Silky dogwood	20	Yes		FACW
4.				
5.				
6.				
7.				
	90	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	30	Yes		FACW
2. <i>Equisetum hyemale</i> / Scouringrush horsetail	20	Yes		FAC
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	No		FACW
4. <i>Galium</i> / Bedstraw	10	No		FAC
5. <i>Solidago gigantea</i> / Smooth goldenrod	10	No		FACW
6. <i>Impatiens capensis</i> / Spotted jewelweed	5	No		FACW
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: 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	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	30	x 3 =	90
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	175	(A)	440 (B)

Prevalence Index = B/A = 2.51

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W002-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W003-1U  
 Investigator(s): RN JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 15-20  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93004117 Long: -75.70192683 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W003-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	75	Yes	FACU
2. <i>Fraxinus americana</i> / White ash	15	No	FACU
3. <i>Tsuga canadensis</i> / Eastern hemlock	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	100	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Caulophyllum thalictroides</i> / Blue cohosh	20	Yes	NI
2. <i>Polystichum acrostichoides</i> / Christmas fern	10	Yes	FACU
3. <i>Rhamnus cathartica</i> / European buckthorn	5	No	FAC
4. <i>Geranium robertianum</i> / Robert's geranium	5	No	FACU
5. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	2	No	UPL
6. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	2	No	FAC
7. <i>Betula alleghaniensis</i> / Yellow birch	2	No	FAC
8. <i>Geum canadense</i> / White avens	2	No	FAC
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	48	= Total Cover	
<b>Woody Vine Stratum</b> (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: 4 (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 11	x 3 = 33
FACU species 125	x 4 = 500
UPL species 22	x 5 = 110
Column Totals: 158	(A) 643 (B)

Prevalence Index = B/A = 4.07

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W003-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W003-1W  
 Investigator(s): JK, RN Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 10-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.930039 Long: -75.702068 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W003-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.) Heavy rain pay 24 hrs. Hillside seep adjacent to steam	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W003-1W

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Indicator Status	1. _____				2. _____				3. _____				4. _____					0	= Total Cover		<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>4</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0</u> (A/B)</p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Total % Cover of:</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>420</u> (B)</td> </tr> </table> <p style="text-align: center;">Prevalence Index = B/A = <u>2.8</u></p> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>  </u> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><u>  </u> 2 - Dominance Test is &gt;50%</p> <p><u>X</u> 3 - Prevalence Index ≤3.0<sup>1</sup></p> <p><u>  </u> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )</p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Vegetation Strata</b></p> <p><b>Tree</b> - Woody plants 3 in. 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OBL species <u>0</u>	x 1 = <u>0</u>																																																																																																																																																																						
FACW species <u>90</u>	x 2 = <u>180</u>																																																																																																																																																																						
FAC species <u>0</u>	x 3 = <u>0</u>																																																																																																																																																																						
FACU species <u>60</u>	x 4 = <u>240</u>																																																																																																																																																																						
UPL species <u>0</u>	x 5 = <u>0</u>																																																																																																																																																																						
Column Totals: <u>150</u> (A)	<u>420</u> (B)																																																																																																																																																																						
<p>Remarks: (Explain alternative procedures here or in a separate report.)</p> <p style="margin-left: 40px;">Tree canopy rooted outside wetland boundary</p>																																																																																																																																																																							

## SOIL

Sampling Point: 23-W003-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

\_\_\_ 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)

<sup>3</sup>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 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W004-1U  
 Investigator(s): RN JK Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 15-20  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.930752 Long: -75.70205 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W004-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	75	Yes	FACU	
2. <i>Fraxinus americana</i> / White ash	5	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	80	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU	
2. <i>Fraxinus americana</i> / White ash	5	Yes	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	20	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Caulophyllum thalictroides</i> / Blue cohosh	15	Yes	NI	
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	Yes	FACU	
3. <i>Dryopteris</i> / Woodfern	5	No	NI	
4. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	5	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	35	= Total Cover		
<b>Woody Vine Stratum</b> (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 5	x 3 = 15
FACU species 110	x 4 = 440
UPL species 20	x 5 = 100
Column Totals: 135 (A)	555 (B)

Prevalence Index = B/A = 4.11

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 23-W004-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W004-1W  
 Investigator(s): RN JK 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: 42.930686 Long: -75.70223833 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Sloping hill seep wetland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W004-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	30	Yes	FACW	
2. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	50	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	Yes	FACU	
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU	
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	
4. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC	
5. _____				
6. _____				
7. _____				
	20	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Impatiens capensis</i> / Spotted jewelweed	85	Yes	FACW	
2. <i>Agrostis stolonifera</i> / Redtop, Creeping bent	60	Yes	FACW	
3. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	150	= Total Cover		
<b>Woody Vine Stratum</b> (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 185	x 2 = 370
FAC species 5	x 3 = 15
FACU species 30	x 4 = 120
UPL species 0	x 5 = 0
Column Totals: 220 (A)	505 (B)

Prevalence Index = B/A = 2.3

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W004-1W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/1	95	10YR 4/6	5	C	M	Clay Loam	
10-18	10YR 3/1	30					Clay Loam	
10-18	10YR 5/2	35					Clay Loam	
10-18	10YR 3/3	35					Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

## 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: 06/27/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W005-1U  
Investigator(s): JK, RN Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): convex Slope (%): 3-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93351297 Long: -75.7004672 Datum: WGS 1984  
Soil Map Unit Name: Lansing gravely 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

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

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 23-W005-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fagus grandifolia</i> / American beech	60	Yes	FACU	
2. <i>Fraxinus americana</i> / White ash	15	No	FACU	
3. <i>Acer saccharum</i> / Sugar maple	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	85	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fagus grandifolia</i> / American beech	40	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	40	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Caulophyllum thalictroides</i> / Blue cohosh	40	Yes	NI	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	40	= Total Cover		
<b>Woody Vine Stratum</b> (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 125	x 4 = 500
UPL species 40	x 5 = 200
Column Totals: 165 (A)	700 (B)

Prevalence Index = B/A = 4.24

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W005-1U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/3	100					Silt Loam	
12-18	10YR 4/3	100					Silt Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W005-1W  
 Investigator(s): RN JK 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: 42.93352783 Long: -75.70068333 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Over story consisting of overhanging upland vegetation from surrounding upland forest	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W005-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fagus grandifolia</i> / American beech	35	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
3. <i>Acer nigrum</i> / Black maple	5	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
	50	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fagus grandifolia</i> / American beech	5	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Impatiens capensis</i> / Spotted jewelweed	50	Yes	FACW	
2. <i>Matteuccia struthiopteris</i> / Ostrich fern	50	Yes	FAC	
3. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	20	No	OBL	
4. <i>Geum canadense</i> / White avens	5	No	FAC	
5. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	5	No	FAC	
6. <i>Athyrium angustum</i> / Northern lady fern	5	No	FAC	
7. <i>Eutrochium maculatum</i> / Spotted trumpetweed	2	No	OBL	
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	137	= Total Cover		
<b>Woody Vine Stratum</b> (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 22	x 1 = 22
FACW species 50	x 2 = 100
FAC species 65	x 3 = 195
FACU species 55	x 4 = 220
UPL species 0	x 5 = 0
Column Totals: 192 (A)	537 (B)

Prevalence Index = B/A = 2.8

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W005-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W006-1U  
 Investigator(s): JK, RN Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): convex Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9335123 Long: -75.70013243 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravely 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> 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? 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: 23-W006-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Fagus grandifolia</i> / American beech	50	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	30	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	80	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. <i>Fagus grandifolia</i> / American beech	40	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Caulophyllum thalictroides</i> / Blue cohosh	40	Yes	NI	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	40	= Total Cover		
<b>Woody Vine Stratum</b> (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: 4 (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	120	x 4 =	480	
UPL species	40	x 5 =	200	
Column Totals:	160	(A)	680	(B)

Prevalence Index = B/A = 4.25

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W006-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W006-1W  
 Investigator(s): RN JK 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.933602 Long: -75.7001535 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W006-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	45	Yes	FACW
2. <i>Acer saccharum</i> / Sugar maple	10	No	FACU
3. <i>Fagus grandifolia</i> / American beech	5	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Impatiens capensis</i> / Spotted jewelweed	75	Yes	FACW
2. <i>Agrostis stolonifera</i> / Redtop, Creeping bent	40	Yes	FACW
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC
4. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	5	No	FAC
5. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	5	No	FAC
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	130	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 160	x 2 = 320
FAC species 20	x 3 = 60
FACU species 15	x 4 = 60
UPL species 0	x 5 = 0
Column Totals: 195 (A)	440 (B)

Prevalence Index = B/A = 2.26

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W006-1W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	95	10YR 5/8	5	C	M	Clay Loam	
12-18	10YR 3/2	10					Clay Loam	
12-18	10YR 4/2	45					Clay Loam	
12-18	10YR 4/3	45					Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

# 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W007-1U  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93233783 Long: -75.70023633 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <div style="margin-left: 40px;">Significant upland vegetation transition</div>		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W007-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. <i>Fraxinus americana</i> / White ash	7	Yes	FACU
3. <i>Athyrium angustum</i> / Northern lady fern	5	No	FAC
4. <i>Arisaema</i> / Jack in the pulpit	5	No	NI
5. <i>Caulophyllum thalictroides</i> / Blue cohosh	5	No	NI
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	32	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1. <i>Vitis riparia</i> / River-bank grape	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	5	= 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 0	x 2 = 0
FAC species 10	x 3 = 30
FACU species 87	x 4 = 348
UPL species 10	x 5 = 50
Column Totals: 107 (A)	428 (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<sup>1</sup> \_\_\_\_\_

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain ) \_\_\_\_\_

<sup>1</sup>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: 23-W007-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root and 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W007-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93229617 Long: -75.70044833 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 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W007-1W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Hillslope dominated by impatiens capensis part of old logging trail</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W007-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU	
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	50	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	5	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Impatiens capensis</i> / Spotted jewelweed	80	Yes	FACW	
2. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	40	Yes	OBL	
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	125	= Total Cover		
<b>Woody Vine Stratum</b> (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 40	x 1 = 40
FACW species 80	x 2 = 160
FAC species 5	x 3 = 15
FACU species 55	x 4 = 220
UPL species 0	x 5 = 0
Column Totals: 180 (A)	435 (B)

Prevalence Index = B/A = 2.42

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W007-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 10 inches. Multiple locations sampled

# 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W007-2U  
 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: 42.93291583 Long: -75.700839 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Significant transition from wetland to upland where beech is prominent	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W007-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Acer saccharum</i> / Sugar maple	50	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	50	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	100	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
2. <i>Athyrium angustum</i> / Northern lady fern	5	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	25	= Total Cover	
<b>Woody Vine Stratum</b> (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: 5 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (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	140	x 4 =	560	
UPL species	0	x 5 =	0	
Column Totals:	145	(A)	575	(B)

Prevalence Index = B/A = 3.97

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W007-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root 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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W007-2W  
 Investigator(s): RN, 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: 42.93281879 Long: -75.70093394 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W007-2W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Lowland dominated by hydric herbaceous vegetation</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W007-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. <i>Malus</i> / Apple	10	Yes	NI
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Carex crinita</i> / Fringed sedge	65	Yes	OBL
2. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC
4. <i>Agrostis stolonifera</i> / Redtop, Creeping bent	5	No	FACW
5. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	5	No	OBL
6. <i>Eutrochium maculatum</i> / Spotted trumpetweed	5	No	OBL
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95	= Total Cover	
<b>Woody Vine Stratum</b> (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 75	x 1 = 75
FACW species 20	x 2 = 40
FAC species 5	x 3 = 15
FACU species 10	x 4 = 40
UPL species 10	x 5 = 50
Column Totals: 120 (A)	220 (B)

Prevalence Index = B/A = 1.83

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

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

## SOIL

Sampling Point: 23-W007-2W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/1	95	10YR 6/8	5	C	M	Clay Loam	
12-18	10YR 4/1	40	10YR 6/8	20	C	M	Clay Loam	
12-18	10YR 5/2	40					Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

# 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W008-1U  
 Investigator(s): RN, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Top of slope Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92932017 Long: -75.701454 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Top of slope dominated by sugar maple. Distinct and abrupt transition of wetland to upland</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W008-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	60	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	60	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU	
3. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	5	Yes	FACU	
4.				
5.				
6.				
7.				
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	5	Yes	FACU	
2. <i>Veratrum viride</i> / American false hellebore	2	Yes	FACW	
3. <i>Arisaema triphyllum</i> / Jack-in-the-pulpit	2	Yes	FAC	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	9	= Total Cover		
<b>Woody Vine Stratum</b> (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: 7 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 2	x 2 = 4
FAC species 2	x 3 = 6
FACU species 90	x 4 = 360
UPL species 0	x 5 = 0
Column Totals: 94 (A)	370 (B)

Prevalence Index = B/A = 3.94

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 23-W008-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

## Root refusal and compact soil 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W008-1W  
 Investigator(s): RN RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92934985 Long: -75.7013258 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W008-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU
2. <i>Juglans nigra</i> / Black walnut	10	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	15	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	25	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Impatiens capensis</i> / Spotted jewelweed	40	Yes	FACW
2. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	25	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	65	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (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 50	x 2 = 100
FAC species 25	x 3 = 75
FACU species 45	x 4 = 180
UPL species 0	x 5 = 0
Column Totals: 120 (A)	355 (B)

Prevalence Index = B/A = 2.96

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

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

## SOIL

Sampling Point: 23-W008-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W009-1U  
 Investigator(s): RN, 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 (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93257317 Long: -75.6980415 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W009-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	30	Yes	FACU
2. <i>Dactylis glomerata</i> / Orchardgrass	25	Yes	FACU
3. <i>Trifolium repens</i> / White clover	15	No	FACU
4. <i>Trifolium pratense</i> / Red clover	15	No	FACU
5. <i>Prunella vulgaris</i> / Self heal	5	No	FAC
6. <i>Plantago lanceolata</i> / Ribwort, English plantain	5	No	FACU
7. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU
8. <i>Galium</i> / Bedstraw	5	No	NI
9.			
10.			
11.			
12.			
	105	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	95	x 4 =	380
UPL species	5	x 5 =	25
Column Totals:	105	(A)	420 (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<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W009-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

Gravel refusal at 12 inches. Multiple locations sampled



# 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W009-1W  
 Investigator(s): RF RN 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 (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93251922 Long: -75.69820027 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 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W009-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W009-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Ranunculus acris</i> / Acrid buttercup	20	Yes	FAC
2. <i>Phalaris arundinacea</i> / Reed canary grass	20	Yes	FACW
3. <i>Symphotrichum</i> / Aster	10	No	NI
4. <i>Apocynum cannabinum</i> / Indian hemp	10	No	FAC
5. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU
6. <i>Plantago major</i> / Common plantain	5	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>75</u> (A)	<u>240</u> (B)

Prevalence Index = B/A = 3.2

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W009-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 10", multiple locations sampled

# 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W010-1U  
 Investigator(s): RN, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Shoulder of slope Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92857133 Long: -75.69460733 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Shiulder of slope, topo defines boundary	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W010-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Prunus serotina</i> / Black cherry	20	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	35	Yes	FACU	
2. <i>Cornus racemosa</i> / Gray dogwood	15	Yes	FAC	
3. <i>Rhamnus arguta</i> var. <i>velutina</i> / Sharp-tooth buckthorn	7	No	NI	
4. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW	
5. _____				
6. _____				
7. _____				
	62	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Packera aurea</i> / Golden groundsel	20	Yes	FACW	
2. <i>Rubus allegheniensis</i> / Allegheny blackberry	10	Yes	FACU	
3. <i>Solidago canadensis</i> / Canada goldenrod	10	Yes	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	40	= Total Cover		
<b>Woody Vine Stratum</b> (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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 35	x 2 = 70
FAC species 15	x 3 = 45
FACU species 75	x 4 = 300
UPL species 7	x 5 = 35
Column Totals: 132 (A)	450 (B)

Prevalence Index = B/A = 3.41

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W010-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W010-1W  
 Investigator(s): RN, 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: 42.92862383 Long: -75.69440533 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W010-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.) Depression/ lowland where water table is high and water is standing in wetland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>3</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W010-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	20	Yes	NI
2. <i>Cornus amomum</i> / Silky dogwood	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
2. <i>Cornus amomum</i> / Silky dogwood	15	Yes	FACW
3. <i>Impatiens capensis</i> / Spotted jewelweed	15	Yes	FACW
4. <i>Equisetum</i> / Horsetail	5	No	NI
5. <i>Eutrochium</i> / Joe pye weed	5	No	NI
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

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

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)  
  
 Total Number of Dominant Species Across All Strata: 6 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	70	x 2 =	140	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	30	x 5 =	150	
Column Totals:	100	(A)	290	(B)

Prevalence Index = B/A = 2.9

**Hydrophytic Vegetation Indicators:**

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

<sup>1</sup>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

## SOIL

Sampling Point: 23-W010-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W012-1U  
 Investigator(s): 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 (%): 5-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92456869 Long: -75.69113583 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W012-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Glycine max</i> / Soybean	40	Yes		NI
2. <i>Oxalis corniculata</i> / Creeping wood sorrel	5	No		FACU
3. <i>Trifolium purpureum</i> / Purple clover	5	No		NI
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	50	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	5	x 4 =	20	
UPL species	45	x 5 =	225	
Column Totals:	50	(A)	245	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 23-W012-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 6 inches, multiple locations sampled



# 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W012-1W  
 Investigator(s): RF 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: 42.92464518 Long: -75.69125997 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W012-1W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W012-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	90	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Solidago gigantea</i> / Smooth goldenrod	40	Yes	FACW
2. <i>Symphyotrichum</i> / Aster	10	No	NI
3. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	5	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>5</u>	x 1 = <u>5</u>
FACW species <u>130</u>	x 2 = <u>260</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>145</u> (A)	<u>315</u> (B)

Prevalence Index = B/A = 2.17

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W012-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 10"

# 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W012-2U  
 Investigator(s): 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 (%): 5-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92427344 Long: -75.69063476 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W012-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Glycine max</i> / Soybean	40	Yes	NI
2. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU
3. <i>Oxalis corniculata</i> / Creeping wood sorrel	5	No	FACU
4. <i>Trifolium pratense</i> / Red clover	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 15	x 4 = 60
UPL species 40	x 5 = 200
Column Totals: 55	(A) 260 (B)

Prevalence Index = B/A = 4.73

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W012-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)
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### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
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☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>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 10 inches, multiple locations sampled



# 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 23-W012-2W  
 Investigator(s): RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92426849 Long: -75.69047383 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W012-2W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input checked="" type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>3</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 23-W012-2W

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>30 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right; 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border-top: 1px solid black;">= Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: <u>30 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1.					2.					3.					4.					5.					6.					7.							<u>0</u>	= Total Cover		Sapling/Shrub Stratum	(Plot size: <u>15 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1.					2.					3.					4.					5.					6.					7.							<u>0</u>	= Total Cover		Herb Stratum	(Plot size: <u>5 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1.	<u>Persicaria maculosa / Spotted ladythumb, Lady's thumb</u>	10	Yes	FAC	2.	<u>Phalaris arundinacea / Reed canary grass</u>	10	Yes	FACW	3.	<u>Cornus sericea / American dogwood</u>	2	No	NI	4.					5.					6.					7.					8.					9.					10.					11.					12.							<u>22</u>	= Total Cover		Woody Vine Stratum	(Plot size: <u>30 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1.					2.					3.					4.							<u>0</u>	= Total Cover		<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0</u> (A/B)</p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Total % Cover of:</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>2</u></td> <td>x 5 = <u>10</u></td> </tr> <tr> <td>Column Totals: <u>22</u></td> <td>(A) <u>60</u> (B)</td> </tr> </table> <p style="text-align: right; margin-top: 10px;">Prevalence Index = B/A = <u>2.73</u></p> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>  </u> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><u>X</u> 2 - Dominance Test is &gt;50%</p> <p><u>X</u> 3 - Prevalence Index ≤3.0<sup>1</sup></p> <p><u>  </u> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )</p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Vegetation Strata</b></p> <p><b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b>      Yes <u>X</u>      No <u>      </u></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>2</u>	x 5 = <u>10</u>	Column Totals: <u>22</u>	(A) <u>60</u> (B)
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Remarks: (Explain alternative procedures here or in a separate report.)																																																																																																																																																																																																													

## SOIL

Sampling Point: 23-W012-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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, multiple locations sampled.

# 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: 23-W013-1U  
 Investigator(s): RF 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9552065 Long: -75.73410633 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W013-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Fagus grandifolia</i> / American beech	40	Yes	FACU
2. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU
3. <i>Tilia americana</i> / American basswood	15	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	75	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fagus grandifolia</i> / American beech	15	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Fagus grandifolia</i> / American beech	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	5	= Total Cover	
<b>Woody Vine Stratum</b> (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 95	x 4 = 380
UPL species 0	x 5 = 0
Column Totals: 95 (A)	380 (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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W013-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

Gravel refusal 6 inches, multiple locations sampled



# 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: 23-W013-1W  
 Investigator(s): RF 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: 42.95529183 Long: -75.73397917 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>23-W013-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W013-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	25	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	35	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fagus grandifolia</i> / American beech	15	Yes	FACU
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	80	Yes	FACW
2. <i>Equisetum arvense</i> / Common horsetail	10	No	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	
<b>Woody Vine Stratum</b> (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: 5 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	145	(A)	410 (B)

Prevalence Index = B/A = 2.83

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 X 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W013-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 12

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: 23-W016-1U  
 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: 42.95005633 Long: -75.74897333 Datum: WGS 1984  
 Soil Map Unit Name: Volusia channery silt loam, 0 to 3 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 23-W016-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Solidago canadensis</i> / Canada goldenrod	30	Yes	FACU	
2. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	15	Yes	FACU	
3. <i>Centaurea stoebe</i> / Spotted knapweed	10	Yes	NI	
4. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	10	Yes	UPL	
5. <i>Galium</i> / Bedstraw	10	Yes	NI	
6. <i>Trifolium pratense</i> / Red clover	5	No	FACU	
7. <i>Fragaria virginiana</i> / Mountain strawberry	5	No	FACU	
8. <i>Coronilla</i> / Crownvetch	5	No	NI	
9. <i>Plantago lanceolata</i> / Ribwort, English plantain	2	No	FACU	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	92	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	57	x 4 =	228	
UPL species	35	x 5 =	175	
Column Totals:	92	(A)	403	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 23-W016-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Roadside, high gravel fill content. Unable to obtain soil sample



# 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: 23-W016-1W  
 Investigator(s): RF 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: 42.95007733 Long: -75.74899867 Datum: WGS 1984  
 Soil Map Unit Name: Volusia channery silt loam, 0 to 3 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: 23-W-1W 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)

\_\_\_\_ 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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (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: 23-W016-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Salix</i> / Willow	40	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	40	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Salix</i> / Willow	50	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	50	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Symphyotrichum</i> / Aster	50	Yes	FAC	
2. <i>Symphyotrichum</i> / Aster	30	Yes	FAC	
3. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	25	No	FACW	
4. <i>Onoclea sensibilis</i> / Sensitive fern	20	No	FACW	
5. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC	
6. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
7. <i>Geum canadense</i> / White avens	5	No	FAC	
8.				
9.				
10.				
11.				
12.				
	150	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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 0	x 1 = 0
FACW species 135	x 2 = 270
FAC species 105	x 3 = 315
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 240	(A) 585 (B)

Prevalence Index = B/A = 2.44

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 23-W016-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W001-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95595733 Long: -75.74622567 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W001-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU	
2. <i>Populus deltoides</i> / Eastern cottonwood	10	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	50	Yes	FACW	
2. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU	
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	No	FACU	
4. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	No	FACU	
5. _____				
6. _____				
7. _____				
	85	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	Yes	FAC	
2. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	5	Yes	UPL	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	15	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (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 50	x 2 = 100
FAC species 20	x 3 = 60
FACU species 55	x 4 = 220
UPL species 5	x 5 = 25
Column Totals: 130 (A)	405 (B)

Prevalence Index = B/A = 3.12

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 26-W001-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:



Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/22/2023			
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	26-W001-1W		
Investigator(s):	ALME		Section, Township, Range:	Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County						
Landform (hillslope, terrace, etc):	Lowland		Local relief (concave, convex, none):	concave			Slope (%):	0-2		
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.95594167		Long:	-75.74617717		Datum:	WGS 1984
Soil Map Unit Name:	Volusia channery silt loam, 3 to 8 percent slopes				NWI classification:	PSS				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?					Are "Normal Circumstances" present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?    (If needed, explain any answers in Remarks.)										

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:											
Primary Indicators (minimum of one required; check all that apply)											
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)										
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)										
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)										
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)										
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)										
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)										
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)										
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)										
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)										
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)											
		Secondary Indicators (minimum of two required)									
		<input type="checkbox"/> Surface Soil Cracks (B6)									
		<input type="checkbox"/> Drainage Patterns (B10)									
		<input type="checkbox"/> Moss Trim Lines (B16)									
		<input type="checkbox"/> Dry-Season Water Table (C2)									
		<input type="checkbox"/> Crayfish Burrows (C8)									
		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)									
		<input type="checkbox"/> Stunted or Stressed Plants (D1)									
		<input checked="" type="checkbox"/> Geomorphic Position (D2)									
		<input type="checkbox"/> Shallow Aquitard (D3)									
		<input checked="" type="checkbox"/> Microtopographic Relief (D4)									
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)									
<div> <div> <b>Field Observations:</b> </div> <div> <div> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Depth (inches): <input type="text"/> </div> <div> Depth (inches): <input type="text"/> </div> <div> Depth (inches): <input type="text"/> </div> </div> <div> <div> <b>Wetland Hydrology Present?</b> </div> <div> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </div> </div> </div> <tr> <td colspan="4">Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</td> </tr> <tr> <td colspan="4">Remarks:</td> </tr>				Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				Remarks:			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:											

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W001-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer rubrum</i> / Red maple	15	Yes	FAC	
2. <i>Pinus sylvestris</i> / Scotch pine	5	Yes	NI	
3.				
4.				
5.				
6.				
7.				
	20	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Viburnum lentago</i> / Nanny-berry	30	Yes	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes	FACW	
2. <i>Solidago gigantea</i> / Smooth goldenrod	10	Yes	FACW	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	20	= Total Cover		
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 20	x 2 = 40
FAC species 45	x 3 = 135
FACU species 0	x 4 = 0
UPL species 5	x 5 = 25
Column Totals: 70 (A)	200 (B)

Prevalence Index = B/A = 2.86

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W001-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W002-1U  
 Investigator(s): ALME 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: 42.947985 Long: -75.75347083 Datum: WGS 1984  
 Soil Map Unit Name: Appleton loam, 0 to 3 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W002-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Poa pratensis</i> / Kentucky blue grass	80	Yes	FACU	
2. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU	
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU	
4. <i>Trifolium repens</i> / White clover	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	100	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 5 =	0	
Column Totals:	100	(A)	400	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W002-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W002-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9479885 Long: -75.753511 Datum: WGS 1984  
 Soil Map Unit Name: Appleton loam, 0 to 3 percent slopes NWI classification: PSS

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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W002-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Salix bebbiana</i> / Gray willow, Bebb's willow	20	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Cornus sericea ssp. sericea</i> / Red osier dogwood	25	Yes	NI
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	35	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago canadensis</i> / Canada goldenrod	90	Yes	FACU
2. <i>Valeriana officinalis</i> / Garden valerian	10	No	NI
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
<b>Woody Vine Stratum</b> (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	20	x 2 =	40	
FAC species	0	x 3 =	0	
FACU species	100	x 4 =	400	
UPL species	35	x 5 =	175	
Column Totals:	155	(A)	615	(B)

Prevalence Index = B/A = 3.97

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W002-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W002-2U  
 Investigator(s): ALME 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: 42.947985 Long: -75.75347083 Datum: WGS 1984  
 Soil Map Unit Name: Appleton loam, 0 to 3 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W002-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Poa pratensis</i> / Kentucky blue grass	80	Yes	FACU	
2. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU	
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU	
4. <i>Trifolium repens</i> / White clover	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	100	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 5 =	0	
Column Totals:	100	(A)	400	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W002-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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 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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W002-2W  
 Investigator(s): AL, ME 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: 42.94891933 Long: -75.75391817 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded. Appleton loam, 0 to 3 perce NWI classification: PEM

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W002-2W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W002-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Solidago gigantea</i> / Smooth goldenrod	60	Yes	FACW
2. <i>Symphyotrichum novae-angliae</i> / New england american-ast	20	Yes	FACW
3. <i>Eutrochium purpureum</i> / Sweet-scented joe-pye-weed	10	No	FAC
4. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	80	x 2 =	160
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95	(A)	205 (B)

Prevalence Index = B/A = 2.16

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W002-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W004-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Bowl Local relief (concave, convex, none): concave Slope (%): 0-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.952146 Long: -75.74567083 Datum: WGS 1984  
 Soil Map Unit Name: Volusia channery silt loam, 0 to 3 percent slopes. Mardin channery silt loam, 3 to 8 percent sl NWI classification: POW

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W004-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland is a bowl shaped depression with an upland island in the middle of it.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>12</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W004-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Salix bebbiana</i> / Gray willow, Bebb's willow	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Phalaris arundinacea</i> / Reed canary grass	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	
<b>Woody Vine Stratum</b> (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 15	x 2 = 30
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 15 (A)	30 (B)

Prevalence Index = B/A = 2.0

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

Remarks: (Explain alternative procedures here or in a separate report.)  
Vegetation concentrated around edge of pond.

## SOIL

Sampling Point: 26-W004-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Soil unable to be collected due to water levels.



# 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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W004/W005-1L  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Berm Local relief (concave, convex, none): convex Slope (%): 0-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95215383 Long: -75.74567033 Datum: WGS 1984  
 Soil Map Unit Name: Volusia channery silt loam, 0 to 3 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W004/W005-1L

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. <i>Picea abies</i> / Norway spruce	10	Yes		NI
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	Yes		FACU
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	15	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	20	Yes		FACU
2. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	15	Yes		UPL
3. <i>Trifolium pratense</i> / Red clover	5	No		FACU
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	40	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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: 4 (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	30	x 4 =	120
UPL species	25	x 5 =	125
Column Totals:	55	(A)	245 (B)

Prevalence Index = B/A = 4.45

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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.)

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 4/4	100					Sandy Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:**

- ☐ 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)

<sup>3</sup>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 from constructed burn.

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/22/2023				
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	26-W005-1W			
Investigator(s):	ALME		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 (%):	0-10			
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.95215067		Long:	-75.74566383		Datum:	WGS 1984	
Soil Map Unit Name:	Volusia channery silt loam, 0 to 3 percent slopes					NWI classification:	PSS				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?					Are "Normal Circumstances" present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?    (If needed, explain any answers in Remarks.)											

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> X Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> X Microtopographic Relief (D4)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> X FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

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

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

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W005-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Salix bebbiana</i> / Gray willow, Bebb's willow	40	Yes	FACW
2. <i>Cornus amomum</i> / Silky dogwood	5	No	FACW
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	45	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	50	Yes	FACW
2. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	10	No	FACW
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	60	= Total Cover	
<b>Woody Vine Stratum</b> (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	105	x 2 =	210	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	105	(A)	210	(B)

Prevalence Index = B/A = 2.0

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W005-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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.

## 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: 06/22/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W006-1U  
Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Berm Local relief (concave, convex, none): convex Slope (%): 2-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95265467 Long: -75.74484833 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 26-W006-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	20	Yes		FACU
2. <i>Viburnum lentago</i> / Nanny-berry	5	No		FAC
3. <i>Picea abies</i> / Norway spruce	5	No		NI
4.				
5.				
6.				
7.				
	30	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Solidago canadensis</i> / Canada goldenrod	70	Yes		FACU
2. <i>Asclepias syriaca</i> / Common milkweed	5	No		UPL
3. <i>Pteridium aquilinum</i> / Western brackenfern	5	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: 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	95	x 4 =	380
UPL species	10	x 5 =	50
Column Totals:	110	(A)	445 (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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W006-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/22/2023			
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	26-W006-1W		
Investigator(s):	ALME		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:	42.952635		Long:	-75.7448995		Datum:	WGS 1984
Soil Map Unit Name:	Volusia channery silt loam, 3 to 8 percent slopes				NWI classification:	PEM				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?					Are "Normal Circumstances" present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?    (If needed, explain any answers in Remarks.)										

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
		Secondary Indicators (minimum of two required)	
		<input type="checkbox"/> Surface Soil Cracks (B6)	
		<input type="checkbox"/> Drainage Patterns (B10)	
		<input type="checkbox"/> Moss Trim Lines (B16)	
		<input type="checkbox"/> Dry-Season Water Table (C2)	
		<input type="checkbox"/> Crayfish Burrows (C8)	
		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
		<input type="checkbox"/> Shallow Aquitard (D3)	
		<input checked="" type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<div> <div> <b>Field Observations:</b> </div> <div> <div> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Depth (inches): <input type="text"/> </div> <div> Depth (inches): <input type="text"/> </div> <div> Depth (inches): <input type="text"/> </div> </div> <div> <div> <b>Wetland Hydrology Present?</b> </div> <div> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </div> </div> </div> <div> Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: </div> <div> Remarks: </div>			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W006-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Rhus typhina</i> / Staghorn sumac	15	Yes	NI	
2.				
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Salix bebbiana</i> / Gray willow, Bebb's willow	10	Yes	FACW	
2. <i>Viburnum lentago</i> / Nanny-berry	5	Yes	FAC	
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Symphyotrichum novae-angliae</i> / New england american-ast	20	Yes	FACW	
2. <i>Solidago gigantea</i> / Smooth goldenrod	15	Yes	FACW	
3. <i>Eutrochium purpureum</i> / Sweet-scented joe-pye-weed	10	Yes	FAC	
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	50	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 45	x 2 = 90
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 15	x 5 = 75
Column Totals: 80 (A)	225 (B)

Prevalence Index = B/A = 2.81

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W006-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W007-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 4-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94939967 Long: -75.74655983 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W007-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Crataegus desueta</i> / New york hawthorn	80	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	80	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Brassica nigra</i> / Black mustard	30	Yes	NI
2. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	20	Yes	NI
3. <i>Solidago flexicaulis</i> / Zigzag goldenrod	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 3 = 0
FACU species 10	x 4 = 40
UPL species 130	x 5 = 650
Column Totals: 150	(A) 710 (B)

Prevalence Index = B/A = 4.73

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W007-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/22/2023				
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	26-W007-1W			
Investigator(s):	ALME		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:	42.94939867		Long:	-75.74657967		Datum:	WGS 1984	
Soil Map Unit Name:	Volusia channery silt loam, 8 to 15 percent slopes and Honeoye silt loam, 8 to 15 percent slop					NWI classification:	PFO				
Are climatic / hydrologic conditions on the site typical for this time of year?				Yes	<input checked="" type="checkbox"/>		No	<input type="checkbox"/> (If no, explain in Remarks.)			
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?				Are "Normal Circumstances" present?		Yes	<input checked="" type="checkbox"/>		No	<input type="checkbox"/>	
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic?				(If needed, explain any answers in Remarks.)							

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
		Secondary Indicators (minimum of two required)	
		<input type="checkbox"/> Surface Soil Cracks (B6)	
		<input type="checkbox"/> Drainage Patterns (B10)	
		<input type="checkbox"/> Moss Trim Lines (B16)	
		<input type="checkbox"/> Dry-Season Water Table (C2)	
		<input type="checkbox"/> Crayfish Burrows (C8)	
		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
		<input type="checkbox"/> Shallow Aquitard (D3)	
		<input checked="" type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<div> <div> <b>Field Observations:</b> </div> <div> <div> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> </div> <div> Depth (inches): <input type="text"/> </div> <div> Depth (inches): <input type="text"/> </div> <div> Depth (inches): <input type="text"/> </div> </div> <div> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </div> </div>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W007-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Crataegus desueta</i> / New york hawthorn	60	Yes	NI
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago gigantea</i> / Smooth goldenrod	80	Yes	FACW
2. <i>Impatiens capensis</i> / Spotted jewelweed	20	No	FACW
3. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	110	= Total Cover	
<b>Woody Vine Stratum</b> (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	100	x 2 =	200	
FAC species	10	x 3 =	30	
FACU species	0	x 4 =	0	
UPL species	60	x 5 =	300	
Column Totals:	170	(A)	530	(B)

Prevalence Index = B/A = 3.12

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

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

## SOIL

Sampling Point: 26-W007-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W008-1U  
 Investigator(s): AL JP 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: 42.958822 Long: -75.732229 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 \_\_\_\_\_, 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W008-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	20	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Viburnum lentago</i> / Nanny-berry	35	Yes	FAC	
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW	
3.				
4.				
5.				
6.				
7.				
	55	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Valeriana</i> / Valerian	35	Yes	NI	
2. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	15	Yes	FACU	
3. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	5	No	UPL	
4. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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 40	x 2 = 80
FAC species 40	x 3 = 120
FACU species 15	x 4 = 60
UPL species 40	x 5 = 200
Column Totals: 135	(A) 460 (B)

Prevalence Index = B/A = 3.41

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W008-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 09/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W008-1W  
 Investigator(s): AL JP Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): convex Slope (%): 6-11  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95864 Long: -75.73217 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 \_\_\_\_\_, 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>26-W008-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W008-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Viburnum lentago</i> / Nanny-berry	15	Yes	FAC	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
3.				
4.				
5.				
6.				
7.				
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Ranunculus acris</i> / Acrid buttercup	30	Yes	FAC	
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
3. <i>Solidago gigantea</i> / Smooth goldenrod	20	Yes	FACW	
4. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No	OBL	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	75	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
	0	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (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 5	x 1 = 5
FACW species 60	x 2 = 120
FAC species 45	x 3 = 135
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 110 (A)	260 (B)

Prevalence Index = B/A = 2.36

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W008-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W009-1U  
 Investigator(s): ALME 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: 42.924622 Long: -75.70177017 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 \_\_\_\_\_, 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W009-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Prunus serotina</i> / Black cherry	35	Yes	FACU	
2. <i>Crataegus</i> / Hawthorn	25	Yes	NI	
3. <i>Fraxinus americana</i> / White ash	20	Yes	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	80	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	40	Yes	FACU	
2. <i>Crataegus</i> / Hawthorn	20	Yes	NI	
3. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC	
4. <i>Lonicera morrowii</i> / Morrow's honeysuckle	15	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	95	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	25	Yes	FAC	
2. <i>Agrimonia striata</i> / Britton's agrimony, Grooved agrimony	5	No	FACU	
3. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	35	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**Dominance Test worksheet:**

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	115	x 4 =	460
UPL species	50	x 5 =	250
Column Totals:	210	(A)	845 (B)

Prevalence Index = B/A = 4.02

**Hydrophytic Vegetation Indicators:**

- \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
- \_\_\_ 2 - Dominance Test is >50%
- \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>
- \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 26-W009-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/27/2023	
Applicant/Owner:	Liberty Renewables		State:	New York		Sampling Point:	26-W009-1W	
Investigator(s):	ALME		Section, Township, Range:	Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County				
Landform (hillslope, terrace, etc):	Toe slope		Local relief (concave, convex, none):	concave			Slope (%):	3-7
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.92471883		Long:	-75.70176033	
Datum:	WGS 1984							
Soil Map Unit Name:	Conesus silt loam, 3 to 8 percent slopes			NWI classification:	PSS1E			
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)								
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?				Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				(If needed, explain any answers in Remarks.)				

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)		
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
		Secondary Indicators (minimum of two required)	
		<input type="checkbox"/> Surface Soil Cracks (B6)	
		<input type="checkbox"/> Drainage Patterns (B10)	
		<input type="checkbox"/> Moss Trim Lines (B16)	
		<input type="checkbox"/> Dry-Season Water Table (C2)	
		<input type="checkbox"/> Crayfish Burrows (C8)	
		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
		<input type="checkbox"/> Shallow Aquitard (D3)	
		<input checked="" type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)			
<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W009-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 15 Feet)			
1. <i>Viburnum dentatum</i> / Southern arrow-wood	50	Yes	FAC
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	No	FACU
3. <i>Betula alleghaniensis</i> / Yellow birch	10	No	FAC
4.			
5.			
6.			
7.			
	70	= Total Cover	
(Plot size: 5 Feet)			
1. <i>Caltha palustris</i> / Yellow marsh marigold	30	Yes	OBL
2. <i>Symphotrichum novae-angliae</i> / New england american-ast	25	Yes	FACW
3. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	5	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
(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 35	x 1 = 35
FACW species 25	x 2 = 50
FAC species 60	x 3 = 180
FACU species 10	x 4 = 40
UPL species 0	x 5 = 0
Column Totals: 130 (A)	305 (B)

Prevalence Index = B/A = 2.35

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W009-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

X	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)

<sup>3</sup>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: 06/27/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W009-2W  
 Investigator(s): ALME 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: 42.92451483 Long: -75.70125033 Datum: WGS 1984  
 Soil Map Unit Name: Conesus silt loam, 3 to 8 percent slopes NWI classification: PSS1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W009-2W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W009-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	30	Yes	OBL
2. <i>Eutrochium maculatum</i> / Spotted trumpetweed	20	Yes	OBL
3. <i>Impatiens capensis</i> / Spotted jewelweed	20	Yes	FACW
4. <i>Veratrum viride</i> / American false hellebore	10	No	FACW
5. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>50</u>	x 1 = <u>50</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u>	(A) <u>130</u> (B)

Prevalence Index = B/A = 1.44

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W009-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W010-1U  
Investigator(s): AL, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%):   
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9391695 Long: -75.692885 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 <u></u>	No <u>X</u>
Hydric Soil Present?	Yes <u></u>	No <u>X</u>
Wetland Hydrology Present?	Yes <u></u>	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes <u></u>	No <u>X</u>	Depth (inches): <u></u>
Water Table Present?	Yes <u></u>	No <u>X</u>	Depth (inches): <u></u>
Saturation Present?	Yes <u></u>	No <u>X</u>	Depth (inches): <u></u>
(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: 26-W010-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Poa pratensis</i> / Kentucky blue grass	40	Yes	FACU
2. <i>Plantago lanceolata</i> / Ribwort, English plantain	30	Yes	FACU
3. <i>Trifolium repens</i> / White clover	5	No	FACU
4. <i>Trifolium pratense</i> / Red clover	5	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">80</span>	x 4 = <span style="float: right;">320</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">80 (A)</span>	<span style="float: right;">320 (B)</span>

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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

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



## SOIL

Sampling Point: 26-W010-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
-----------------------------	-----	----	---

Remarks:

Gravel refusal at 2 inches. Constructed road

## 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: 06/28/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W010-1W  
Investigator(s): AL, ME 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 (%): 0-4  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.939173 Long: -75.69284667 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>26-W010-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> 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)

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

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)
<u>X</u> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes <u>X</u> No _____	Depth (inches): <u>6</u>
Water Table Present? Yes <u>X</u> No _____	Depth (inches): <u>0</u>
Saturation Present? Yes <u>X</u> No _____	Depth (inches): <u>0</u>

(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: 26-W010-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )			
1. <u><i>Typha latifolia</i> / Broadleaf cattail, Broad-leaved cattail</u>	50	Yes	OBL
2. <u><i>Phalaris arundinacea</i> / Reed canary grass</u>	30	Yes	FACW
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	<u>80</u>	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
	<u>0</u>	= 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	50	x 1 =	50
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:	80	(A)	110 (B)

Prevalence Index = B/A = 1.38

**Hydrophytic Vegetation Indicators:**  
X 1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
X 3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

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

## SOIL

Sampling Point: 26-W010-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Couldn't core/dig past 10 inches due to washout from standing water. Open water wetland.

# 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W011-1U  
 Investigator(s): AL, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%):   
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9391695 Long: -75.692885 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Surface Soil Cracks (B6)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Drainage Patterns (B10)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Moss Trim Lines (B16)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Dry-Season Water Table (C2)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Crayfish Burrows (C8)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Saturation Visible on Aerial Imagery (C9)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Geomorphic Position (D2)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Shallow Aquitard (D3)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> Microtopographic Relief (D4)
		<u></u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W011-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Poa pratensis</i> / Kentucky blue grass	40	Yes	FACU
2. <i>Plantago lanceolata</i> / Ribwort, English plantain	30	Yes	FACU
3. <i>Trifolium pratense</i> / Red clover	5	No	FACU
4. <i>Trifolium repens</i> / White clover	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">80</span>	x 4 = <span style="float: right;">320</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">80 (A)</span>	<span style="float: right;">320 (B)</span>

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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 26-W011-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 2 inches. Constructed road



# 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W011-1W  
 Investigator(s): AL, ME 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 (%): 0-4  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93918667 Long: -75.692872 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>26-W011-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>12+</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W011-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Phalaris arundinacea</i> / Reed canary grass	60	Yes	FACW	
2. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW	
3. <i>Verbena hastata</i> / Swamp verben	10	No	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	80	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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	0	x 1 =	0	
FACW species	80	x 2 =	160	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	80	(A)	160	(B)

Prevalence Index = B/A = 2.0

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W011-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W012-1U  
 Investigator(s): AL, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93991867 Long: -75.69302483 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W012-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Ranunculus acris</i> / Acrid buttercup	30	Yes	FAC	
2. <i>Minuartia</i> / Stitchwort	10	No	NI	
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU	
4. <i>Arctium minus</i> / Common burdock	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	55	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	15	x 4 =	60
UPL species	10	x 5 =	50
Column Totals:	55	(A)	200 (B)

Prevalence Index = B/A = 3.64

**Hydrophytic Vegetation Indicators:**  
   1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
   3 - Prevalence Index ≤3.0<sup>1</sup>  
   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W012-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W012-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave Slope (%): 2-4  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.939942 Long: -75.69290917 Datum: WGS 1984  
 Soil Map Unit Name: Lima silt loam, 3 to 8 percent slopes. Lansing gravelly silt loam, 3 to 8 percent slopes NWI classification: PEM

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W012-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>2</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Agrostis stolonifera</i> / Redtop, Creeping bent	60	Yes	FACW	
2. <i>Phalaris arundinacea</i> / Reed canary grass	60	Yes	FACW	
3. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	30	No	OBL	
4. <i>Mentha arvensis</i> / American wild mint, Field mint	20	No	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	170	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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	30	x 1 =	30	
FACW species	140	x 2 =	280	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	170	(A)	310	(B)

Prevalence Index = B/A = 1.82

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W012-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

<input checked="" type="checkbox"/>	Histosol (A1)
<input type="checkbox"/>	Histic Epipedon (A2)
<input type="checkbox"/>	Black Histic (A3)
<input type="checkbox"/>	Hydrogen Sulfide (A4)
<input type="checkbox"/>	Stratified Layers (A5)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)
<input type="checkbox"/>	Thick Dark Surface (A12)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)
<input type="checkbox"/>	Sandy Gleyed Matrix (S4)
<input type="checkbox"/>	Sandy Redox (S5)
<input type="checkbox"/>	Stripped Matrix (S6)
<input type="checkbox"/>	Dark Surface (S7) <b>(LRR R, MLRA 149B)</b>

- \_\_\_ 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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W013-1U  
 Investigator(s): AL, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 2-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93841717 Long: -75.68790733 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W013-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	60	Yes	FACU	
2. <i>Trifolium pratense</i> / Red clover	50	Yes	FACU	
3. <i>Plantago lanceolata</i> / Ribwort, English plantain	10	No	FACU	
4. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	125	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 3 =	0	
FACU species	125	x 4 =	500	
UPL species	0	x 5 =	0	
Column Totals:	125	(A)	500	(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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W013-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W013-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Low spot Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938319 Long: -75.68793433 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 3 to 8 percent slopes NWI classification: PEM  
 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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W013-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W013-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
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. <i>Phalaris arundinacea</i> / Reed canary grass	40	Yes		FACW
2. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	15	Yes		OBL
3. <i>Symphotrichum novae-angliae</i> / New england american-ast	10	No		FACW
4. <i>Carex hystericina</i> / Bottlebrush sedge, Porcupine sedge	10	No		OBL
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 <u>25</u>	x 1 = <u>25</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u>	(A) <u>125</u> (B)

Prevalence Index = B/A = 1.67

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 26-W013-1W

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W014-1U  
 Investigator(s): AL, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%):   
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938323 Long: -75.68356067 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u></u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W014-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	40	Yes	FACU	
2. <i>Fagus grandifolia</i> / American beech	10	No	FACU	
3. <i>Fraxinus americana</i> / White ash	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	60	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Carya glabra</i> / Pignut hickory	10	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	10	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	20	Yes	FACU	
2. <i>Crataegus desueta</i> / New york hawthorn	20	Yes	NI	
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW	
4. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	10	No	UPL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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: 4 (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 10	x 2 = 20
FAC species 0	x 3 = 0
FACU species 90	x 4 = 360
UPL species 30	x 5 = 150
Column Totals: 130 (A)	530 (B)

Prevalence Index = B/A = 4.08

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W014-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Even split between matrix and redox. Compaction 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W014-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 3-7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93842383 Long: -75.68365817 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 8 to 15 percent slopes NWI classification: PEM

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W014-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W014-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. <i>Ulmus americana</i> / American elm	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	30	Yes	UPL
2. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	15	Yes	OBL
3. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW
4. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
5. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>85</u> (A)	<u>255</u> (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W014-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W015-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 2-7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93780617 Long: -75.683506 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W015-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	50	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	10	No	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	5	Yes	NI
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	5	= Total Cover	
<b>Woody Vine Stratum</b> (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	5	x 2 =	10	
FAC species	0	x 3 =	0	
FACU species	60	x 4 =	240	
UPL species	5	x 5 =	25	
Column Totals:	70	(A)	275	(B)

Prevalence Index = B/A = 3.93

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 26-W015-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W015-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 3-7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93787233 Long: -75.68350933 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 8 to 15 percent slopes NWI classification: PEM

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W015-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W015-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes		FACW
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes		FAC
2. <i>Athyrium angustum</i> / Northern lady fern	10	Yes		FAC
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes		FACW
4. <i>Matteuccia struthiopteris</i> / Ostrich fern	10	Yes		FAC
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: 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	20	x 2 =	40
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	55	(A)	145 (B)

Prevalence Index = B/A = 2.64

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W015-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W016-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): convex Slope (%): 0-4  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93696033 Long: -75.68421217 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W016-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	30	Yes	FACU
2. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	45	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Betula lenta</i> / Sweet birch	20	Yes	FACU
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	20	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Carex gracillima</i> / Graceful sedge	15	Yes	FACU
2. <i>Parathelypteris noveboracensis</i> / New york fern	5	Yes	FAC
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	20	= Total Cover	
<b>Woody Vine Stratum</b> (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: 5 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (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	80	x 4 =	320	
UPL species	0	x 5 =	0	
Column Totals:	85	(A)	335	(B)

Prevalence Index = B/A = 3.94

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W016-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smith		Sampling Date:	06/28/2023	
Applicant/Owner:	Liberty Renewables		State:	New York		Sampling Point:	26-W016-1W	
Investigator(s):	AL, ME		Section, Township, Range:	Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County				
Subform (hillslope, terrace, etc):	Lowland		Local relief (concave, convex, none):	concave			Slope (%):	0-2
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.93709683		Long:	-75.68419083	
Soil Map Unit Name:	Angola silt loam			NWI classification:			PFO	

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

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

**Wetland Hydrology Indicators:**

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

Secondary Indicators (minimum of two required)

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input checked="" type="checkbox"/> Water-Stained Leaves (B9)       | <input type="checkbox"/> Surface Soil Cracks (B6)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Drainage Patterns (B10)                   |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        | <input type="checkbox"/> Moss Trim Lines (B16)                     |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input checked="" type="checkbox"/> Geomorphic Position (D2)       |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 | <input type="checkbox"/> Shallow Aquitard (D3)                     |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |   | <input type="checkbox"/> Microtopographic Relief (D4)              |
|  |   | <input checked="" type="checkbox"/> FAC-Neutral Test (D5)          |

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	<u>      </u>	Depth (inches):	<u>      2      </u>
Water Table Present?	Yes	<u>X</u>	No	<u>      </u>	Depth (inches):	<u>      0      </u>
Saturation Present?	Yes	<u>X</u>	No	<u>      </u>	Depth (inches):	<u>      0      </u>
(includes capillary fringe)						

**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: 26-W016-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Ulmus americana</i> / American elm	30	Yes	FACW	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	50	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
3. <i>Rubus occidentalis</i> / Black raspberry	5	No	NI	
4. _____				
5. _____				
6. _____				
7. _____				
	70	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
2. <i>Solidago rugosa ssp. aspera</i> / Wrinkleleaf goldenrod	20	Yes	NI	
3. <i>Thelypteris palustris</i> / Eastern marsh fern	10	No	FACW	
4. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 95	x 2 = 190
FAC species 0	x 3 = 0
FACU species 50	x 4 = 200
UPL species 25	x 5 = 125
Column Totals: 170 (A)	515 (B)

Prevalence Index = B/A = 3.03

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W016-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W017-1U  
 Investigator(s): AL, ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): convex Slope (%): 2-7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93711417 Long: -75.68604567 Datum: WGS 1984  
 Soil Map Unit Name: Angola 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W017-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Tsuga canadensis</i> / Eastern hemlock	30	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	25	Yes	FACU	
3. <i>Carya glabra</i> / Pignut hickory	20	Yes	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	75	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	20	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Carex gracillima</i> / Graceful sedge	10	Yes	FACU	
2. <i>Agrimonia striata</i> / Britton's agrimony, Grooved agrimony	5	Yes	FACU	
3. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	5	Yes	NI	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	20	= Total Cover		
<b>Woody Vine Stratum</b> (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: 8 (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 10	x 3 = 30
FACU species 90	x 4 = 360
UPL species 5	x 5 = 25
Column Totals: 115 (A)	435 (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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W017-1U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	2.5Y 3/3	100					Silt Loam	
6-18	10YR 5/4	100					Silt Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	06/28/2023			
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	26-W017-1W		
Investigator(s):	AL, ME		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		
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.93708233		Long:	-75.68587767		Datum:	WGS 1984
Soil Map Unit Name:	Angola silt loam			NWI classification:	PFO					
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?				Are "Normal Circumstances" present?			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?    (If needed, explain any answers in Remarks.)										

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W017-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Tsuga canadensis</i> / Eastern hemlock	50	Yes	FACU
2. <i>Ulmus americana</i> / American elm	20	Yes	FACW
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	80	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
2. <i>Impatiens capensis</i> / Spotted jewelweed	10	Yes	FACW
3. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	5	No	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	35	= Total Cover	
<b>Woody Vine Stratum</b> (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 5	x 1 = 5
FACW species 60	x 2 = 120
FAC species 0	x 3 = 0
FACU species 60	x 4 = 240
UPL species 0	x 5 = 0
Column Totals: 125 (A)	365 (B)

Prevalence Index = B/A = 2.92

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W017-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W018-1U  
Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 5-8  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.944044 Long: -75.73151917 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 26-W018-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	80	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	5	No	FACU	
3.				
4.				
5.				
6.				
7.				
	85	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
3. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU	
4.				
5.				
6.				
7.				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	0	= Total Cover		
<b>Woody Vine Stratum</b> (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	0	x 3 =	0	
FACU species	105	x 4 =	420	
UPL species	0	x 5 =	0	
Column Totals:	115	(A)	440	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 26-W018-1U

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W018-1W  
 Investigator(s): ALME 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 (%): 2-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.944044 Long: -75.73151917 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W018-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1-3</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W018-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Phragmites australis</i> / Common reed	100	Yes	FACW	
2. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW	
3. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU	
4. <i>Impatiens capensis</i> / Spotted jewelweed	5	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	120	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 1 =	0	
FACW species	115	x 2 =	230	
FAC species	0	x 3 =	0	
FACU species	5	x 4 =	20	
UPL species	0	x 5 =	0	
Column Totals:	120	(A)	250	(B)

Prevalence Index = B/A = 2.08

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W018-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 26-W019-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94987217 Long: -75.73437567 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	90	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	90	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Dryopteris intermedia</i> / Evergreen wood fern	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	
<b>Woody Vine Stratum</b> (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	10	x 3 =	30	
FACU species	90	x 4 =	360	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	390	(B)

Prevalence Index = B/A = 3.9

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 26-W019-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W019-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Bowl shaped depression Local relief (concave, convex, none): convex Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94965417 Long: -75.7344055 Datum: WGS 1984  
 Soil Map Unit Name: Volusia channery silt loam, 3 to 8 percent slopes NWI classification: PEM

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W019-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
2. <i>Viburnum lentago</i> / Nanny-berry	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	30	Yes	FAC
2. <i>Eutrochium</i> / Joe pye weed	20	Yes	NI
3. <i>Carex crinita</i> / Fringed sedge	10	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
<b>Woody Vine Stratum</b> (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	10	x 1 =	10	
FACW species	15	x 2 =	30	
FAC species	35	x 3 =	105	
FACU species	10	x 4 =	40	
UPL species	20	x 5 =	100	
Column Totals:	90	(A)	285	(B)

Prevalence Index = B/A = 3.17

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W019-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 26-W019-2U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Top of mound Local relief (concave, convex, none): convex Slope (%):             
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95081667 Long: -75.736078 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 <u>          </u> No <u>X</u> Hydric Soil Present? Yes <u>          </u> No <u>X</u> Wetland Hydrology Present? Yes <u>          </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>          </u> No <u>X</u> If yes, optional Wetland Site ID: <u>          </u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>          </u> No <u>X</u> Depth (inches): <u>          </u> Water Table Present? Yes <u>          </u> No <u>X</u> Depth (inches): <u>          </u> Saturation Present? Yes <u>          </u> No <u>X</u> Depth (inches): <u>          </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>          </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	40	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	25	Yes	FACU
3. <i>Tilia americana</i> / American basswood	15	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	80	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Fagus grandifolia</i> / American beech	20	Yes	FACU
2. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	35	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	0	= Total Cover	
<b>Woody Vine Stratum</b> (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: 4 (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 0	x 5 = 0
Column Totals: 115 (A)	460 (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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W019-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

### Root 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: 26-W019-2W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95063433 Long: -75.7361205 Datum: WGS 1984  
 Soil Map Unit Name: Volusia channery silt loam, 3 to 8 percent slopes NWI classification: PFO

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W019-2W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1) <u>X</u> High Water Table (A2) <u>X</u> Saturation (A3) <u>      </u> Water Marks (B1) <u>      </u> Sediment Deposits (B2) <u>      </u> Drift Deposits (B3) <u>      </u> Algal Mat or Crust (B4) <u>      </u> Iron Deposits (B5) <u>      </u> Inundation Visible on Aerial Imagery (B7) <u>      </u> Sparsely Vegetated Concave Surface (B8)	<u>      </u> Water-Stained Leaves (B9) <u>      </u> Aquatic Fauna (B13) <u>      </u> Marl Deposits (B15) <u>      </u> Hydrogen Sulfide Odor (C1) <u>      </u> Oxidized Rhizospheres on Living Roots (C3) <u>      </u> Presence of Reduced Iron (C4) <u>      </u> Recent Iron Reduction in Tilled Soils (C6) <u>      </u> Thin Muck Surface (C7) <u>      </u> Other (Explain in Remarks) <u>      </u> Surface Soil Cracks (B6) <u>      </u> Drainage Patterns (B10) <u>      </u> Moss Trim Lines (B16) <u>      </u> Dry-Season Water Table (C2) <u>      </u> Crayfish Burrows (C8) <u>      </u> Saturation Visible on Aerial Imagery (C9) <u>      </u> Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) <u>      </u> Shallow Aquitard (D3) <u>X</u> Microtopographic Relief (D4) <u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>16</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>12</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	25	Yes	FACU
2. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	20	Yes	FACU
3. <i>Tilia americana</i> / American basswood	15	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Impatiens capensis</i> / Spotted jewelweed	30	Yes	FACW
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
3. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	5	No	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	55	= Total Cover	
<b>Woody Vine Stratum</b> (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 5	x 1 = 5
FACW species 50	x 2 = 100
FAC species 0	x 3 = 0
FACU species 60	x 4 = 240
UPL species 0	x 5 = 0
Column Totals: 115 (A)	345 (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 26-W019-2W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/1	95	10YR 3/3	5	C	M	Silt Loam	
8-12	2.5Y 5/2	90	10YR 4/6	10	C	M	Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

# 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: 26-W019-3U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Top of mound Local relief (concave, convex, none): convex Slope (%): 3-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95097883 Long: -75.73747233 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-3U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Acer saccharum</i> / Sugar maple	25	Yes	FACU	
2. <i>Tsuga canadensis</i> / Eastern hemlock	15	Yes	FACU	
3.				
4.				
5.				
6.				
7.				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Parathelypteris noveboracensis</i> / New york fern	10	Yes	FAC	
2. <i>Arisaema</i> / Jack in the pulpit	2	No	NI	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	12	= Total Cover		
<b>Woody Vine Stratum</b> (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 50	x 4 = 200
UPL species 2	x 5 = 10
Column Totals: 62 (A)	240 (B)

Prevalence Index = B/A = 3.87

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 26-W019-3U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

Root refusal at 6 inches

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:	26-W019-3W		
Investigator(s):	ALME		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:	42.95118183		Long:	-75.73717467		Datum:	WGS 1984
Soil Map Unit Name:	Volusia channery silt loam, 3 to 8 percent slopes				NWI classification:	PFO				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?					Are "Normal Circumstances" present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?    (If needed, explain any answers in Remarks.)										

Hydrophytic Vegetation Present?	Yes	X	No		<b>Is the Sampled Area within a Wetland?</b> Yes X No If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes	X	No		
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	<u>        </u>	No	<u>  X  </u>	Depth (inches):	<u>                </u>
Water Table Present?	Yes	<u>  X  </u>	No	<u>        </u>	Depth (inches):	<u>          12          </u>
Saturation Present?	Yes	<u>  X  </u>	No	<u>        </u>	Depth (inches):	<u>          0          </u>
(includes capillary fringe)						

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

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-3W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Betula alleghaniensis</i> / Yellow birch	30	Yes	FAC	
2. <i>Tsuga canadensis</i> / Eastern hemlock	10	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes	FACW	
2. <i>Osmundastrum cinnamomeum</i> / Cinnamon fern	25	Yes	FACW	
3. <i>Leersia oryzoides</i> / Rice cutgrass	20	Yes	OBL	
4. <i>Eutrochium maculatum</i> / Spotted trumpetweed	10	No	OBL	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	85	= Total Cover		
<b>Woody Vine Stratum</b> (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	55	x 2 =	110
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	125	(A)	270 (B)

Prevalence Index = B/A = 2.16

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W019-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

X	Histosol (A1)
	Histic Epipedon (A2)
	Black Histic (A3)
X	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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 26-W019-4U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Top of mound Local relief (concave, convex, none): convex Slope (%): 2-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94996883 Long: -75.73673067 Datum: WGS 1984  
 Soil Map Unit Name: Lordstown channery silt loam, 8 to 15 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-4U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1. <i>Acer saccharum</i> / Sugar maple</td> <td style="text-align: center;">35</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2. <i>Fagus grandifolia</i> / American beech</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">50</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum (Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum (Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1. <i>Athyrium angustum</i> / Northern lady fern</td> <td style="text-align: center;">5</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">5</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table>	Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	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(7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <p><b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	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 50	x 4 = 200	UPL species 0	x 5 = 0	Column Totals: 55 (A)	215 (B)
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## SOIL

Sampling Point: 26-W019-4U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W019-4W  
 Investigator(s): ALMWE 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 (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95010083 Long: -75.7368615 Datum: WGS 1984  
 Soil Map Unit Name: Lordstown channery silt loam, 8 to 15 percent slopes NWI classification: PEM

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W019-4W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W019-4W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	
Herb Stratum (Plot size: 5 Feet )			
1.			
2.			
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: 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	45	x 1 =	45
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	10	x 5 =	50
Column Totals:	95	(A)	255 (B)

Prevalence Index = B/A = 2.68

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 26-W019-4W

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

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

### Hydric Soil Indicators:

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- \_\_\_ Histic Epipedon (A2)
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- \_\_\_ 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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W020-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Top of hillslope Local relief (concave, convex, none): convex Slope (%): 3-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9486495 Long: -75.72931933 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W020-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Viburnum lentago</i> / Nanny-berry	20	Yes	FAC
2. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU
3. <i>Populus deltoides</i> / Eastern cottonwood	10	Yes	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	40	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Viburnum lentago</i> / Nanny-berry	60	Yes	FAC
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	80	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	25	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	25	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 20	x 2 = 40
FAC species 90	x 3 = 270
FACU species 35	x 4 = 140
UPL species 0	x 5 = 0
Column Totals: 145 (A)	450 (B)

Prevalence Index = B/A = 3.1

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W020-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

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:	26-W020-1W		
Investigator(s):	ALME		Section, Township, Range:	Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County						
Landform (hillslope, terrace, etc):	Lowland		Local relief (concave, convex, none):	concave			Slope (%):	0-1		
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.94863283		Long:	-75.72946383		Datum:	WGS 1984
Soil Map Unit Name:	Volusia channery silt loam, 8 to 15 percent slopes				NWI classification:	PSS				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <u>  X  </u> No <u>      </u> (If no, explain in Remarks.)										
Are Vegetation <u>      </u> , Soil <u>      </u> , or Hydrology <u>      </u> significantly disturbed?					Are "Normal Circumstances" present?    Yes <u>  X  </u> No <u>      </u>					
Are Vegetation <u>      </u> , Soil <u>      </u> , or Hydrology <u>      </u> naturally problematic? (If needed, explain any answers in Remarks.)										

Hydrophytic Vegetation Present?	Yes	<u>      </u>	No	<u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	<u>X</u>	No	<u>      </u>	
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)					

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

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

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

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W020-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Cornus sericea</i> / American dogwood	15	Yes	NI
2. <i>Salix</i> / Willow	15	Yes	NI
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Viburnum lentago</i> / Nanny-berry	35	Yes	FAC
2. <i>Cornus sericea</i> / American dogwood	20	Yes	NI
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	55	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW
2. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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	40	x 2 =	80	
FAC species	35	x 3 =	105	
FACU species	5	x 4 =	20	
UPL species	50	x 5 =	250	
Column Totals:	130	(A)	455	(B)

Prevalence Index = B/A = 3.5

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 26-W020-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 26-W021-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Top of mound Local relief (concave, convex, none): convex Slope (%): 2-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.949025 Long: -75.736071 Datum: WGS 1984  
 Soil Map Unit Name: Lordstown 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W021-1U

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DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> </div> <div style="padding: 5px;"> <b>Hydrophytic Vegetation Present?</b> <span style="float: right;">Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></span> </div>	Total % Cover of:	Multiply by:	OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>	FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>	FAC species <span style="float: right;">5</span>	x 3 = <span style="float: right;">15</span>	FACU species <span style="float: right;">50</span>	x 4 = <span style="float: right;">200</span>	UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>	Column Totals: <span style="float: right;">55 (A)</span>	<span style="float: right;">215 (B)</span>
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## SOIL

Sampling Point: 26-W021-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 26-W021-1W  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 2-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94897417 Long: -75.73610317 Datum: WGS 1984  
 Soil Map Unit Name: Lordstown channery silt loam, 8 to 15 percent slopes NWI classification: PEM

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>26-W021-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 26-W021-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Viburnum lentago</i> / Nanny-berry	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Carex crinita</i> / Fringed sedge	60	Yes	OBL
2. <i>Cirsium arvense</i> / Canada thistle	20	No	FACU
3. <i>Phalaris arundinacea</i> / Reed canary grass	10	No	FACW
4. <i>Carex comosa</i> / Bristly sedge, Bristly sedge	10	No	OBL
5. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	110	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	20	x 2 =	40	
FAC species	5	x 3 =	15	
FACU species	20	x 4 =	80	
UPL species	0	x 5 =	0	
Column Totals:	115	(A)	205	(B)

Prevalence Index = B/A = 1.78

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 26-W021-1W

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

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

### Hydric Soil Indicators:

- \_\_\_ Histosol (A1)
- \_\_\_ Histic Epipedon (A2)
- \_\_\_ Black Histic (A3)
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- \_\_\_ 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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-UPL-005  
 Investigator(s): BA 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 (%): 10-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92481683 Long: -75.67375017 Datum: WGS 1984  
 Soil Map Unit Name: Aurora silt loam, 15 to 25 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Dense successional scrubby area on hillslope with shallow, rocky soils.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-UPL-005

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )				
1. <i>Pinus resinosa</i> / Red pine	5	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	5	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )				
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI	
2. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC	
3. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
4.				
5.				
6.				
7.				
	65	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Carex</i> / Sedge	5	Yes	NI	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	15	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )				
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: 6 (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	25	x 2 =	50	
FAC species	20	x 3 =	60	
FACU species	5	x 4 =	20	
UPL species	35	x 5 =	175	
Column Totals:	85	(A)	305	(B)

Prevalence Index = B/A = 3.59

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 33-UPL-005

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 5 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-UPL006  
 Investigator(s): BA 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 (%): 3-7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9395305 Long: -75.7117755 Datum: WGS 1984  
 Soil Map Unit Name: Phelps gravelly silt loam, 0 to 3 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland verification data point taken adjacent stream where overlaid by NWI mapped PFO1A feature.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-UPL006

Tree Stratum (Plot size: <u>30 Feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: <u>15 Feet</u>)</b>				
1. <u>Rhus typhina</u> / Staghorn sumac	25	Yes		NI
2. <u>Fraxinus pennsylvanica</u> / Green ash	5	No		FACW
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>30</u>	= Total Cover		
<b>Herb Stratum (Plot size: <u>5 Feet</u>)</b>				
1. <u>Clematis virginiana</u> / Devil's-darning-needles	80	Yes		FAC
2. <u>Rubus allegheniensis</u> / Allegheny blackberry	15	No		FACU
3. <u>Phleum pratense</u> / Common timothy, Cultivated timothy	10	No		FACU
4. <u>Galium aparine</u> / Cleavers, Goose grass	5	No		FACU
5. <u>Solidago rugosa</u> / Wrinkle-leaf goldenrod	5	No		FAC
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>115</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: <u>30 Feet</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	= 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	5	x 2 =	10	
FAC species	85	x 3 =	255	
FACU species	30	x 4 =	120	
UPL species	25	x 5 =	125	
Column Totals:	145	(A)	510	(B)

Prevalence Index = B/A = 3.52

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-UPL006

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-UPL007  
Investigator(s): BA 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 (%): 3-7  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93904767 Long: -75.7102235 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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 verification data point taken in a mowed agriculture field, where overlaying NWI mapped PSS1E feature.

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 33-UPL007

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: <u>30 Feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 Feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 Feet</u> )				
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	30	Yes	FACU	
2. <i>Echinochloa crus-galli</i> / Barnyard grass	15	Yes	FAC	
3. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	10	No	FAC	
4. <i>Plantago major</i> / Common plantain	10	No	FACU	
5. <i>Carex</i> / Sedge	10	No	NI	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>75</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 Feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	= 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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>75</u>	(A) <u>285</u> (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<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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.)  
Recently mowed within past week.

## SOIL

Sampling Point: 33-UPL007

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/07/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-UPL-008  
 Investigator(s): BA, 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: 42.939974 Long: -75.71572783 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 15 to 25 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Area where manure is placed in active pastureland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		



**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-UPL-008

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>30 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>15 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>5 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1.</td> <td><u>Trifolium pratense / Red clover</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2.</td> <td><u>Chrysanthemum / Daisy</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">NI</td> </tr> <tr> <td>3.</td> <td><u>Cirsium vulgare / Bullthistle, Bull thistle</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>30</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>30 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: <u>30 Feet</u> )	Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 33-UPL-008

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_\_\_ 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)

<sup>3</sup>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:

### Compact soils 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: 33-UPL009  
 Investigator(s): BA GH 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 (%): 3-7  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938975 Long: -75.71698867 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 X, Soil X, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Man-made, bowl shaped depression with compacted gravel fill, as well as standing water. No hydrophytic vegetation present or hydric soils.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		_____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>18</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-UPL009

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )				
1. <u>Fraxinus pennsylvanica / Green ash</u>	5	Yes	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	5	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )				
1. <u>Geum canadense / White avens</u>	10	Yes	FAC	
2. <u>Trifolium repens / White clover</u>	5	Yes	FACU	
3. <u>Daucus carota / Carrot, Carrot, Queen anne's lace</u>	5	Yes	UPL	
4. <u>Arctium minus / Common burdock</u>	5	Yes	FACU	
5. <u>Alliaria petiolata / Garlic-mustard</u>	2	No	FACU	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	27	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )				
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	5	x 2 =	10	
FAC species	10	x 3 =	30	
FACU species	12	x 4 =	48	
UPL species	5	x 5 =	25	
Column Totals:	32	(A)	113	(B)

Prevalence Index = B/A = 3.53

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-UPL009

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>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 7 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: 33-UPL010  
 Investigator(s): BA, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Bowlshaped depression Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9502555 Long: -75.77266667 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Active row cropland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-UPL010

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	<u>0</u>	= Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5 Feet</u> )			
1. <u>Zea mays / Corn</u>	90	Yes	NI
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	90	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30 Feet</u> )			
1. _____			
2. _____			
3. _____			
4. _____			
	<u>0</u>	= 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	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>0</u>	x 3 =	<u>0</u>	
FACU species	<u>0</u>	x 4 =	<u>0</u>	
UPL species	<u>90</u>	x 5 =	<u>450</u>	
Column Totals:	<u>90</u>	(A)	<u>450</u>	(B)

Prevalence Index = B/A = 5.0

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-UPL010

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/31/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W003-1U  
 Investigator(s): BA GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Slope Local relief (concave, convex, none): concave Slope (%): 0-5%  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9424915 Long: -75.75841883 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland data point taken adjacent successional area in unmowed vegetation that abuts an active agricultural field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W003-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Salix</i> / Willow	10	Yes	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Poa</i> / Bluegrass	45	Yes	NI	
2. <i>Trifolium repens</i> / White clover	10	Yes	FACU	
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	Yes	FACU	
4. <i>Galium aparine</i> / Cleavers, Goose grass	10	Yes	FACU	
5. <i>Fragaria virginiana</i> / Mountain strawberry	5	No	FACU	
6. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
7. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	5	No	FACU	
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: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (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 40	x 4 = 160
UPL species 45	x 5 = 225
Column Totals: 100 (A)	430 (B)

Prevalence Index = B/A = 4.3

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W003-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 05/31/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W003-1W  
 Investigator(s): BA GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 0-5%  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9423705 Long: -75.75844233 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W003-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.) Terrace within riparian zone of stream that is seasonally flooded due to a gradual, low lying stream bank. Dominated by willow shrubs.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W003-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Prunus serotina</i> / Black cherry	10	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
3. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Salix</i> / Willow	50	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	50	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	30	Yes	FACW
2. <i>Caltha palustris</i> / Yellow marsh marigold	30	Yes	OBL
3. <i>Rubus</i> / Blackberry	10	No	NI
4. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	5	No	FAC
5. <i>Veratrum viride</i> / American false hellebore	5	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 30	x 1 = 30
FACW species 45	x 2 = 90
FAC species 55	x 3 = 165
FACU species 20	x 4 = 80
UPL species 10	x 5 = 50
Column Totals: 160	(A) 415 (B)

Prevalence Index = B/A = 2.59

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W003-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W004-1U  
 Investigator(s): BA GH 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: 42.91960483 Long: -75.63988917 Datum: WGS 1984  
 Soil Map Unit Name: Aurora 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W004-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	80	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	5	No	FACU	
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	90	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	25	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
2. <i>Impatiens capensis</i> / Spotted jewelweed	5	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	20	= Total Cover		
<b>Woody Vine Stratum</b> (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 25	x 2 = 50
FAC species 0	x 3 = 0
FACU species 110	x 4 = 440
UPL species 0	x 5 = 0
Column Totals: 135 (A)	490 (B)

Prevalence Index = B/A = 3.63

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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: 33-W004-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/02/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W004-1W  
 Investigator(s): BA 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: 42.91970867 Long: -75.639876 Datum: WGS 1984  
 Soil Map Unit Name: Aurora silt loam, 8 to 15 percent slopes NWI classification: PFO4E

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W004-1W PFO</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs as hillside seep and is associated with an intermittent stream flowing through and continues outside study area. This wetland is associated with an NWI wetland.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W004-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	20	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	7	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	27	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	15	Yes	FACU	
2. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Impatiens capensis</i> / Spotted jewelweed	70	Yes	FACW	
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
3. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW	
4. <i>Alliaria petiolata</i> / Garlic-mustard	5	No	FACU	
5. <i>Rumex obtusifolius</i> / Broadleaf dock, Bitter dock	5	No	FAC	
6. <i>Geum canadense</i> / White avens	5	No	FAC	
7. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	110	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. <i>Vitis riparia</i> / River-bank grape	10	Yes	FAC	
2. _____				
3. _____				
4. _____				
	10	= 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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 87	x 2 = 174
FAC species 50	x 3 = 150
FACU species 40	x 4 = 160
UPL species 0	x 5 = 0
Column Totals: 177 (A)	484 (B)

Prevalence Index = B/A = 2.73

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W004-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/06/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W005/12-W001-1U  
Investigator(s): BA, ME 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: 42.9423925 Long: -75.7607085 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 33-W005/12-W001-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Plantago lanceolata</i> / Ribwort, English plantain	20	Yes	FACU	
2. <i>Anthoxanthum odoratum</i> / Sweet vernal grass	20	Yes	FACU	
3. <i>Rumex crispus</i> / Curly dock	20	Yes	FAC	
4. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU	
5. <i>Poa</i> / Bluegrass	10	No	NI	
6. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	90	= Total Cover		
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">20</span>	x 3 = <span style="float: right;">60</span>
FACU species <span style="float: right;">60</span>	x 4 = <span style="float: right;">240</span>
UPL species <span style="float: right;">10</span>	x 5 = <span style="float: right;">50</span>
Column Totals: <span style="float: right;">90 (A)</span>	<span style="float: right;">350 (B)</span>

Prevalence Index = B/A = 3.89

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W005/12-W001-1U

[illegible]

# 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: 06/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W005/12-W001-1W  
 Investigator(s): BA, ME 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: 42.94240017 Long: -75.7607185 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W005-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Active pastureland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W005/12-W001-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Carex</i> / Sedge	80	Yes	FACW
2. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	10	No	OBL
3. <i>Ranunculus acris</i> / Acrid buttercup	10	No	FAC
4. <i>Anthoxanthum odoratum</i> / Sweet vernal grass	10	No	FACU
5. <i>Glyceria grandis</i> / American mannagrass, American manna grass	5	No	OBL
6. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No	OBL
7. <i>Rumex crispus</i> / Curly dock	5	No	FAC
8.			
9.			
10.			
11.			
12.			
	125	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	20	x 1 =	20
FACW species	80	x 2 =	160
FAC species	15	x 3 =	45
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	125	(A)	265 (B)

Prevalence Index = B/A = 2.12

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W005/12-W001-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

     X 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)

<sup>3</sup>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 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: 06/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W005-2U  
 Investigator(s): BA ME 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: 42.9430445 Long: -75.76032867 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland point in mowed agricultural field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W005-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Trifolium repens</i> / White clover	80	Yes	FACU
2. <i>Medicago sativa</i> / Alfalfa	20	No	UPL
3. <i>Dactylis glomerata</i> / Orchardgrass	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	85	x 4 =	340
UPL species	20	x 5 =	100
Column Totals:	105	(A)	440 (B)

Prevalence Index = B/A = 4.19

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 33-W005-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W005-2W  
 Investigator(s): RF, AT 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: 42.94305417 Long: -75.76031117 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W005-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. <i>Cornus sericea</i> / American dogwood	60	Yes		NI
2.				
3.				
4.				
5.				
6.				
7.				
	60	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Ranunculus acris</i> / Acrid buttercup	50	Yes		FAC
2. <i>Mentha arvensis</i> / American wild mint, Field mint	20	Yes		FACW
3. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	15	No		FACW
4. <i>Solidago gigantea</i> / Smooth goldenrod	10	No		FACW
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	95	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	155	(A)	540 (B)

Prevalence Index = B/A = 3.48

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

   3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W005-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W006-1U  
 Investigator(s): BAME 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: 42.94236783 Long: -75.75972083 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland data point taken in active row cropland adjacent upland forest.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W006-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Prunus avium</i> / Sweet cherry	10	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	15	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Dactylis glomerata</i> / Orchardgrass	25	Yes	FACU	
2. <i>Rubus</i> / Blackberry	20	Yes	NI	
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
4. <i>Vitis riparia</i> / River-bank grape	5	No	FAC	
5. <i>Zea mays</i> / Corn	5	No	NI	
6. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	No	FACU	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	70	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. _____				
2. _____				
3. _____				
4. _____				
	0	= Total Cover		

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

**Dominance Test worksheet:**

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 15	x 3 = 45
FACU species 45	x 4 = 180
UPL species 25	x 5 = 125
Column Totals: 90 (A)	360 (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<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 33-W006-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W006-1W  
 Investigator(s): BA ME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 2-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94242617 Long: -75.75968417 Datum: WGS 1984  
 Soil Map Unit Name: Alluvial land NWI classification: R5UBH

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W006-1W PSS</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs as a terrace and is associated with a delineated stream.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W006-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Salix</i> / Willow	80	Yes		NI
2. <i>Cornus sericea</i> / American dogwood	5	No		NI
3.				
4.				
5.				
6.				
7.				
	85	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Onoclea sensibilis</i> / Sensitive fern	60	Yes		FACW
2. <i>Solidago gigantea</i> / Smooth goldenrod	30	Yes		FACW
3. <i>Rubus</i> / Blackberry	10	No		NI
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No		FAC
5.				
6.				
7.				
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	95	x 5 =	475
Column Totals:	190	(A)	670 (B)

Prevalence Index = B/A = 3.53

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W006-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W007-1U  
 Investigator(s): BA 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 (%): 10-18  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92528283 Long: -75.67145233 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 15 to 25 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W007-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Tilia americana</i> / American basswood	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago canadensis</i> / Canada goldenrod	15	Yes	FACU
2. <i>Anthoxanthum odoratum</i> / Sweet vernal grass	10	Yes	FACU
3. <i>Solidago gigantea</i> / Smooth goldenrod	10	Yes	FACW
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW
5. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (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	15	x 2 =	30	
FAC species	15	x 3 =	45	
FACU species	65	x 4 =	260	
UPL species	0	x 5 =	0	
Column Totals:	95	(A)	335	(B)

Prevalence Index = B/A = 3.53

**Hydrophytic Vegetation Indicators:**

     1 - Rapid Test for Hydrophytic Vegetation

     2 - Dominance Test is >50%

     3 - Prevalence Index ≤3.0<sup>1</sup>

     4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W007-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 15 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: 06/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W007-1W  
 Investigator(s): BA RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.925296 Long: -75.67141367 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 15 to 25 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W007-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs in a concave depression on a hillslope.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W007-1W

<div style="display: flex; justify-content: space-between;"> <div> <b>Tree Stratum</b> (Plot size: 30 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div style="margin-top: 5px;">                     1. _____                      2. _____                      3. _____                      4. _____                      5. _____                      6. _____                      7. _____                 </div> <div style="text-align: right; margin-top: 5px;">                     0 = Total Cover                 </div>				<b>Dominance Test worksheet:</b> 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)															
<div style="display: flex; justify-content: space-between;"> <div> <b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div style="margin-top: 5px;">                     1. _____                      2. _____                      3. _____                      4. _____                      5. _____                      6. _____                      7. _____                 </div> <div style="text-align: right; margin-top: 5px;">                     0 = Total Cover                 </div>				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species 25</td> <td>x 1 = 25</td> </tr> <tr> <td>FACW species 35</td> <td>x 2 = 70</td> </tr> <tr> <td>FAC species 20</td> <td>x 3 = 60</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 80 (A)</td> <td>155 (B)</td> </tr> </table> Prevalence Index = B/A = 1.94		Total % Cover of:	Multiply by:	OBL species 25	x 1 = 25	FACW species 35	x 2 = 70	FAC species 20	x 3 = 60	FACU species 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 80 (A)	155 (B)
Total % Cover of:	Multiply by:																		
OBL species 25	x 1 = 25																		
FACW species 35	x 2 = 70																		
FAC species 20	x 3 = 60																		
FACU species 0	x 4 = 0																		
UPL species 0	x 5 = 0																		
Column Totals: 80 (A)	155 (B)																		
<div style="display: flex; justify-content: space-between;"> <div> <b>Herb Stratum</b> (Plot size: 5 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div style="margin-top: 5px;">                     1. <i>Onoclea sensibilis</i> / Sensitive fern 30 Yes FACW                      2. <i>Ranunculus acris</i> / Acrid buttercup 20 Yes FAC                      3. <i>Eleocharis acicularis</i> / Needle spikerush 15 No OBL                      4. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge 10 No OBL                      5. <i>Solidago gigantea</i> / Smooth goldenrod 5 No FACW                      6. _____                      7. _____                      8. _____                      9. _____                      10. _____                      11. _____                      12. _____                 </div> <div style="text-align: right; margin-top: 5px;">                     80 = Total Cover                 </div>				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation <sup>1</sup> (Explain )  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<div style="display: flex; justify-content: space-between;"> <div> <b>Woody Vine Stratum</b> (Plot size: 30 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div style="margin-top: 5px;">                     1. _____                      2. _____                      3. _____                      4. _____                 </div> <div style="text-align: right; margin-top: 5px;">                     0 = Total Cover                 </div>				<b>Definitions of Vegetation Strata</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.															
<div style="display: flex; justify-content: space-between;"> <div> <b>Remarks:</b> (Explain alternative procedures here or in a separate report.)                 </div> <div> <b>Hydrophytic Vegetation Present?</b> Yes X No                 </div> </div>																			

## SOIL

Sampling Point: 33-W007-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W008-1U  
 Investigator(s): BA RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9249705 Long: -75.67221933 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland data point taken on hillslope.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W008-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Solidago canadensis</i> / Canada goldenrod	40	Yes	FACU
2. <i>Rubus allegheniensis</i> / Allegheny blackberry	10	No	FACU
3. <i>Galium album</i> / White bedstraw	10	No	NI
4. <i>Rhamnus cathartica</i> / European buckthorn	5	No	FAC
5. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 10	x 3 = 30
FACU species 50	x 4 = 200
UPL species 10	x 5 = 50
Column Totals: 70 (A)	280 (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<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W008-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Compacted soil refusal 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: 06/09/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W008-1W  
Investigator(s): BARF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 3-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.925007 Long: -75.67215417 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: 33-W008-1W 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) \_\_\_\_\_ Water-Stained Leaves (B9)  
\_\_\_\_ High Water Table (A2) \_\_\_\_\_ Aquatic Fauna (B13)  
\_\_\_\_ Saturation (A3) \_\_\_\_\_ Marl Deposits (B15)  
\_\_\_\_ Water Marks (B1) \_\_\_\_\_ Hydrogen Sulfide Odor (C1)  
\_\_\_\_ Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3)  
\_\_\_\_ Drift Deposits (B3) \_\_\_\_\_ Presence of Reduced Iron (C4)  
\_\_\_\_ Algal Mat or Crust (B4) \_\_\_\_\_ Recent Iron Reduction in Tilled Soils (C6)  
\_\_\_\_ Iron Deposits (B5) \_\_\_\_\_ Thin Muck Surface (C7)  
\_\_\_\_ Inundation Visible on Aerial Imagery (B7) \_\_\_\_\_ Other (Explain in Remarks)  
\_\_\_\_ Sparsely Vegetated Concave Surface (B8)

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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(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: 33-W008-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Carex</i> / Sedge	30	Yes	FACW
2. <i>Solidago gigantea</i> / Smooth goldenrod	15	Yes	FACW
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
4. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	No	OBL
5. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	10	No	FACW
6. <i>Valeriana officinalis</i> / Garden valerian	5	No	NI
7. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	85	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>10</u>	x 1 = <u>10</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>85</u>	(A) <u>180</u> (B)

Prevalence Index = B/A = 2.12

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W008-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W009-1U  
 Investigator(s): BA 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 (%): 8-15  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92542917 Long: -75.67311017 Datum: WGS 1984  
 Soil Map Unit Name: Aurora silt loam, 15 to 25 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W009-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	Yes	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	2	No	FACW
4.			
5.			
6.			
7.			
	12	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. <i>Carex</i> / Sedge	40	Yes	FACW
2. <i>Solidago canadensis</i> / Canada goldenrod	30	Yes	FACU
3. <i>Solidago gigantea</i> / Smooth goldenrod	5	No	FACW
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: 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 47	x 2 = 94
FAC species 5	x 3 = 15
FACU species 35	x 4 = 140
UPL species 0	x 5 = 0
Column Totals: 87 (A)	249 (B)

Prevalence Index = B/A = 2.86

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W009-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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Remarks:

Compaction refusal 15"

# 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: 06/09/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W009-1W  
 Investigator(s): BA RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Toeslope Local relief (concave, convex, none): concave Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92547967 Long: -75.67312417 Datum: WGS 1984  
 Soil Map Unit Name: Aurora silt loam, 15 to 25 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W009-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W009-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	Yes	FACU
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW
2. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	20	Yes	OBL
3. <i>Ranunculus acris</i> / Acrid buttercup	15	Yes	FAC
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	55	= Total Cover	
<b>Woody Vine Stratum</b> (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	20	x 1 =	20	
FACW species	20	x 2 =	40	
FAC species	15	x 3 =	45	
FACU species	5	x 4 =	20	
UPL species	0	x 5 =	0	
Column Totals:	60	(A)	125	(B)

Prevalence Index = B/A = 2.08

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W009-1W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/1	95	5YR 4/4	5	C	PL,M	Silty Clay Loam	
8-12	10YR 4/1	80	10YR 5/4	20	C	M	Silty Clay Loam	
12-18	10YR 4/1	95	5YR 4/4	5	C	M,PL	Silty Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

# 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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W010-1U  
 Investigator(s): RF BA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 5-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92411598 Long: -75.67391437 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 \_\_\_\_\_, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W010-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Crataegus</i> / Hawthorn	25	Yes	NI
2. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	No	FACU
4.			
5.			
6.			
7.			
	55	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Valeriana officinalis</i> / Garden valerian	45	Yes	NI
2. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	20	Yes	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
<b>Woody Vine Stratum</b> (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	10	x 2 =	20	
FAC species	30	x 3 =	90	
FACU species	30	x 4 =	120	
UPL species	70	x 5 =	350	
Column Totals:	140	(A)	580	(B)

Prevalence Index = B/A = 4.14

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 33-W010-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 8", multiple locations sampled

## 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: 06/12/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W010-1W  
Investigator(s): RF BA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92422558 Long: -75.67411076 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 \_\_\_\_\_, 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: 33-W010-1W PSS

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

Secondary Indicators (minimum of two required)

X 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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(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: 33-W010-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rhamnus cathartica</i> / European buckthorn	45	Yes	FAC	
2. <i>Crataegus</i> / Hawthorn	30	Yes	NI	
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW	
4.				
5.				
6.				
7.				
	85	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Veratrum viride</i> / American false hellebore	25	Yes	FACW	
2. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	No	FACU	
4. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	60	= Total Cover		
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 70	x 2 = 140
FAC species 45	x 3 = 135
FACU species 10	x 4 = 40
UPL species 30	x 5 = 150
Column Totals: 155 (A)	465 (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W010-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Compacted soil refusal 10"



# 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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W010-2U  
 Investigator(s): RF BA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): convex Slope (%): 3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92336358 Long: -75.67447328 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 \_\_\_\_\_, 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W010-2U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. <i>Tsuga canadensis</i> / Eastern hemlock</td><td style="text-align: center;">80</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">80</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum (Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum (Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr><td>8. _____</td><td></td><td></td><td></td></tr> <tr><td>9. _____</td><td></td><td></td><td></td></tr> <tr><td>10. _____</td><td></td><td></td><td></td></tr> <tr><td>11. _____</td><td></td><td></td><td></td></tr> <tr><td>12. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table>	Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Tsuga canadensis</i> / Eastern hemlock	80	Yes	FACU	2. _____				3. _____				4. _____				5. _____				6. _____				7. _____					80	= Total Cover		Sapling/Shrub Stratum (Plot size: 15 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. _____				2. _____				3. _____				4. _____				5. _____				6. _____				7. _____					0	= Total Cover		Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. _____				2. _____				3. _____				4. _____				5. _____				6. _____				7. _____				8. _____				9. _____				10. _____				11. _____				12. _____					0	= Total Cover		Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. _____				2. _____				3. _____				4. _____					0	= Total Cover		<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Dominance Test worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">0 (A)</span>                       Total Number of Dominant Species Across All Strata: <span style="float: right;">1 (B)</span>                       Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">0.0 (A/B)</span> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Prevalence Index worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Total % Cover of:</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiply by:</th> </tr> <tr> <td>OBL species <span style="float: right;">0</span></td> <td>x 1 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACW species <span style="float: right;">0</span></td> <td>x 2 = <span style="float: right;">0</span></td> </tr> <tr> <td>FAC species <span style="float: right;">0</span></td> <td>x 3 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACU species <span style="float: right;">80</span></td> <td>x 4 = <span style="float: right;">320</span></td> </tr> <tr> <td>UPL species <span style="float: right;">0</span></td> <td>x 5 = <span style="float: right;">0</span></td> </tr> <tr> <td>Column Totals: <span style="float: right;">80 (A)</span></td> <td><span style="float: right;">320 (B)</span></td> </tr> </table> <p style="text-align: right; margin-top: 10px;">Prevalence Index = B/A = <span style="float: right;">4.0</span></p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-left: 20px;">                         ___ 1 - Rapid Test for Hydrophytic Vegetation                          ___ 2 - Dominance Test is &gt;50%                          ___ 3 - Prevalence Index ≤3.0<sup>1</sup>                          ___ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )                     </div> <p style="margin-top: 10px; font-size: small;"><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Definitions of Vegetation Strata</b>   <div style="margin-left: 20px; font-size: small;"> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                     </div> </div> <div style="padding-bottom: 5px;"> <b>Hydrophytic Vegetation Present?</b> <span style="float: right;">Yes _____ No <u>X</u></span> </div>	Total % Cover of:	Multiply by:	OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>	FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>	FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>	FACU species <span style="float: right;">80</span>	x 4 = <span style="float: right;">320</span>	UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>	Column Totals: <span style="float: right;">80 (A)</span>	<span style="float: right;">320 (B)</span>
Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																																																																				
1. <i>Tsuga canadensis</i> / Eastern hemlock	80	Yes	FACU																																																																																																																																																																				
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Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																																																																				
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Remarks: (Explain alternative procedures here or in a separate report.)																																																																																																																																																																							

## SOIL

Sampling Point: 33-W010-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Root and rock refusal at 8"

# 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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W010-2W  
 Investigator(s): RF BA Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9233899 Long: -75.67452433 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 \_\_\_\_\_, 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W010-2W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: <div style="margin-left: 40px;">Bedrock</div>			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W010-2W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Tsuga canadensis</i> / Eastern hemlock	60	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	70	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	60	Yes	OBL
2. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
3. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW
4. <i>Athyrium angustum</i> / Northern lady fern	5	No	FAC
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	85	= Total Cover	
<b>Woody Vine Stratum</b> (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 60	x 1 = 60
FACW species 30	x 2 = 60
FAC species 5	x 3 = 15
FACU species 60	x 4 = 240
UPL species 0	x 5 = 0
Column Totals: 155 (A)	375 (B)

Prevalence Index = B/A = 2.42

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation \_\_\_\_\_

2 - Dominance Test is >50% \_\_\_\_\_

X 3 - Prevalence Index ≤3.0<sup>1</sup> \_\_\_\_\_

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain ) \_\_\_\_\_

<sup>1</sup>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: 33-W010-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock

Depth (inches): 8

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: 06/12/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W010-3U  
Investigator(s): BA, AT, RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): convex Slope (%): 0-2  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92498783 Long: -75.67570667 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 \_\_\_\_\_, 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 <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____
Wetland Hydrology Present?	Yes _____	No <u>X</u>

<b>Is the Sampled Area</b>	
<b>within a Wetland?</b>	Yes _____ No <u>X</u>
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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 33-W010-3U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Viburnum lentago</i> / Nanny-berry	10	Yes	FAC
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	20	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Solidago canadensis</i> / Canada goldenrod	30	Yes	FACU
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	25	Yes	FAC
3. <i>Fragaria</i> / Strawberry	5	No	NI
4. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
5. <i>Crataegus</i> / Hawthorn	5	No	NI
6. <i>Rhamnus cathartica</i> / European buckthorn	5	No	FAC
7. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	2	No	FACU
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	77	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	45	x 3 =	135
FACU species	42	x 4 =	168
UPL species	10	x 5 =	50
Column Totals:	97	(A)	353 (B)

Prevalence Index = B/A = 3.64

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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



## SOIL

Sampling Point: 33-W010-3U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 4/2	90	10YR 6/3	10	D	M	Silt Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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:

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: 06/12/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W010-3W  
 Investigator(s): BA RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): none Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9250235 Long: -75.67566933 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 \_\_\_\_\_, 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W010-3W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs on flat top of hill characterized by FAC and FACW plants, as well as microtopography.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W010-3W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Solidago gigantea</i> / Smooth goldenrod	20	Yes		FACW
2. <i>Carex</i> / Sedge	20	Yes		NI
3. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	15	Yes		OBL
4. <i>Phalaris arundinacea</i> / Reed canary grass	15	Yes		FACW
5. <i>Onoclea sensibilis</i> / Sensitive fern	5	No		FACW
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	75	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	15	x 1 =	15	
FACW species	40	x 2 =	80	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	20	x 5 =	100	
Column Totals:	75	(A)	195	(B)

Prevalence Index = B/A = 2.6

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W010-3W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W011-1U  
Investigator(s): BA, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Slope Local relief (concave, convex, none): convex Slope (%): 6-7%  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92263817 Long: -75.67910333 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 <u>X</u>	No _____
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 33-W011-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Rhamnus cathartica</i> / European buckthorn	20	Yes	FAC
2. <i>Crataegus</i> / Hawthorn	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Alliaria petiolata</i> / Garlic-mustard	10	Yes	FACU
2. <i>Onoclea sensibilis</i> / Sensitive fern	5	Yes	FACW
3. <i>Solidago canadensis</i> / Canada goldenrod	5	Yes	FACU
4. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	5	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	25	= Total Cover	
<b>Woody Vine Stratum</b> (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 0	x 1 = 0
FACW species 75	x 2 = 150
FAC species 35	x 3 = 105
FACU species 15	x 4 = 60
UPL species 0	x 5 = 0
Column Totals: 125 (A)	315 (B)

Prevalence Index = B/A = 2.52

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W011-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W011-1W  
 Investigator(s): BA, 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 (%):   
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92271467 Long: -75.67914867 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM1E PSS1E

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 <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u>33-W011-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs as a swale on hillslope fed by ephemeral stream.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Moss Trim Lines (B16)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Dry-Season Water Table (C2)
<u></u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Crayfish Burrows (C8)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Saturation Visible on Aerial Imagery (C9)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Geomorphic Position (D2)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Shallow Aquitard (D3)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches): <u>0.25</u> Water Table Present? Yes <u>X</u> No <u></u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u></u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W011-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Eutrochium maculatum</i> / Spotted trumpetweed	80	Yes	OBL
2. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
3. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
4. <i>Impatiens capensis</i> / Spotted jewelweed	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
<b>Woody Vine Stratum</b> (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	80	x 1 =	80	
FACW species	25	x 2 =	50	
FAC species	5	x 3 =	15	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	110	(A)	145	(B)

Prevalence Index = B/A = 1.32

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W011-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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) <b>(LRR R, MLRA 149B)</b>
___	Thin Dark Surface (S9) <b>(LRR R, MLRA 149B)</b>
___	Loamy Mucky Mineral (F1) <b>(LRR K, L)</b>
___	Loamy Gleyed Matrix (F2)
<u>X</u>	Depleted Matrix (F3)
<u>X</u>	Redox Dark Surface (F6)
___	Depleted Dark Surface (F7)
___	Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W011-2U  
 Investigator(s): BA, GH 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: 42.92260017 Long: -75.6801905 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W011-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Viburnum lentago</i> / Nanny-berry	40	Yes	FAC
2. <i>Rhamnus cathartica</i> / European buckthorn	40	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	80	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Packera aurea</i> / Golden groundsel	70	Yes	FACW
2. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU
3. <i>Viburnum lentago</i> / Nanny-berry	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
<b>Woody Vine Stratum</b> (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	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	85	x 3 =	255
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	170	(A)	445 (B)

Prevalence Index = B/A = 2.62

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_

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

## SOIL

Sampling Point: 33-W011-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W011-2W  
 Investigator(s): BA, 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: 42.92261717 Long: -75.68026 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W011-2W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W011-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	120	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	34	= 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>110</u>	x 2 = <u>220</u>
FAC species <u>24</u>	x 3 = <u>72</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>154</u> (A)	<u>392</u> (B)

Prevalence Index = B/A = 2.55

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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.

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**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: 33-W011-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:



Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/28/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W011-3U  
Investigator(s): BA, 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 (%): 2-4  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92250467 Long: -75.6811065 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 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.)

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland slope on man made berm with mowed vegetation adjacent pond.			

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W011-3U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Poa</i> / Bluegrass	60	Yes	NI
2. <i>Trifolium pratense</i> / Red clover	20	No	FACU
3. <i>Lotus corniculatus</i> / Bird's foot trefoil, Bird's-foot trefoil	20	No	FACU
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU
5. <i>Plantago</i> / Plantain	5	No	NI
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	50	x 4 =	200
UPL species	65	x 5 =	325
Column Totals:	115	(A)	525 (B)

Prevalence Index = B/A = 4.57

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W011-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 06/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W011-3W  
 Investigator(s): BA GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison Count  
 Landform (hillslope, terrace, etc): Bowlshaped depression Local relief (concave, convex, none): concave Slope (%): 0-5%  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.922513 Long: -75.68108333 Datum: WGS 1984  
 Soil Map Unit Name: 33-W011-3W 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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W011-3W POW</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>36+</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W011-3W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattail	5	Yes	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	5	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	5	x 1 =	5	
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:	5	(A)	5	(B)

Prevalence Index = B/A = 1.0

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W011-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W012-1U  
 Investigator(s): BA 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 (%): 2-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93905167 Long: -75.71204633 Datum: WGS 1984  
 Soil Map Unit Name: Phelps gravelly silt loam, 0 to 3 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 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Data point taken in clover and hay field recently mowed.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W012-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Dactylis glomerata</i> / Orchardgrass	55	Yes	FACU	
2. <i>Trifolium repens</i> / White clover	15	No	FACU	
3. <i>Echinochloa crus-galli</i> / Barnyard grass	10	No	FAC	
4. <i>Rumex crispus</i> / Curly dock	2	No	FAC	
5. <i>Plantago major</i> / Common plantain	2	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	84	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

**Remarks:** (Explain alternative procedures here or in a separate report.)  
 Vegetation mowed within past week.

**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	12	x 3 =	36	
FACU species	72	x 4 =	288	
UPL species	0	x 5 =	0	
Column Totals:	84	(A)	324	(B)

Prevalence Index = B/A = 3.86

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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



## SOIL

Sampling Point: 33-W012-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 15 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W012-1W  
 Investigator(s): BA 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 (%): 2-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9390225 Long: -75.71202633 Datum: WGS 1984  
 Soil Map Unit Name: Phelps gravelly silt loam, 0 to 3 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 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W012-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs in swale that abuts farm road and partially occurs in old rut. Vegetation recently mowed.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W012-1W

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr> <td>1.</td> <td><i>Persicaria pensylvanica</i> / Pinkweed</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>2.</td> <td><i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattai</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td>3.</td> <td><i>Carex</i> / Sedge</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>4.</td> <td><i>Juncus effusus</i> / Common bog rush, Soft or lamp rush</td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">OBL</td> </tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">40</td> <td colspan="2">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 33-W012-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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**)  
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☐ 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)

<sup>3</sup>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: 07/05/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W013-1U  
Investigator(s): BA GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Berm Local relief (concave, convex, none): convex Slope (%): 1-3  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93874683 Long: -75.71111483 Datum: WGS 1984  
Soil Map Unit Name: Palmyra gravelly loam, 0 to 3 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 <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____
Wetland Hydrology Present?	Yes _____	No <u>X</u>

<b>Is the Sampled Area</b>
<b>within a Wetland?</b> Yes _____ No <u>X</u>
If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)  
Berm adjacent farm road where unmowed veg is still present.

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 33-W013-1U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table> <table style="width: 100%; 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(7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u></p>	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 60	x 4 = 240	UPL species 10	x 5 = 50	Column Totals: 95 (A)	345 (B)
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## SOIL

Sampling Point: 33-W013-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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**)  
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☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W013-1W  
 Investigator(s): BA GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Active channel Local relief (concave, convex, none): concave Slope (%): 1-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938723 Long: -75.711135 Datum: WGS 1984  
 Soil Map Unit Name: Palmyra gravelly loam, 0 to 3 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W013-1W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Associated with perennial stream. Relatively flat area where wetland develops before stream channelizes further to the east, downhill.</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W013-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Salix</i> / Willow	35	Yes	FAC	
2. <i>Cornus alba</i> / Red osier	25	Yes	FACW	
3. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	No	FACU	
4.				
5.				
6.				
7.				
	70	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Cornus alba</i> / Red osier	10	Yes	FACW	
2. <i>Eutrochium maculatum</i> / Spotted trumpetweed	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: 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 10	x 1 = 10
FACW species 35	x 2 = 70
FAC species 35	x 3 = 105
FACU species 10	x 4 = 40
UPL species 0	x 5 = 0
Column Totals: 90 (A)	225 (B)

Prevalence Index = B/A = 2.5

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W013-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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:

Project/Site:	21028 Hoffman Falls Wetland Delineation		City/County:	Towns of Eaton, Fenner, Nelson, and Smit		Sampling Date:	07/05/2023			
Applicant/Owner:	Liberty Renewables			State:	New York		Sampling Point:	33-W014-1U		
Investigator(s):	BA GH		Section, Township, Range:	Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County						
Landform (hillslope, terrace, etc):	Toeslope		Local relief (concave, convex, none):	convex			Slope (%):	2-4		
Subregion (LRR or MLRA):	LRR R MLRA 244, LRR L MLRA 172		Lat:	42.93886567		Long:	-75.7108345		Datum:	WGS 1984
Soil Map Unit Name:	Palmyra gravelly loam, 0 to 3 percent slopes					NWI classification:				
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)										
Are Vegetation <input checked="" type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?					Are "Normal Circumstances" present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks.)										

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) Recently mowed field.			

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

# VEGETATION - Use scientific names of plants.

Sampling Point: 33-W014-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
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. <i>Poa</i> / Bluegrass	35	Yes	NI	
2. <i>Galium</i> / Bedstraw	10	Yes	NI	
3. <i>Plantago major</i> / Common plantain	10	Yes	FACU	
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	Yes	FACU	
5. <i>Plantago lanceolata</i> / Ribwort, English plantain	10	Yes	FACU	
6. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	10	Yes	UPL	
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: 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 30	x 4 = 120
UPL species 55	x 5 = 275
Column Totals: 85	(A) 395 (B)

Prevalence Index = B/A = 4.65

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W014-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W014-1W  
 Investigator(s): BA, 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: 42.93880033 Long: -75.71069767 Datum: WGS 1984  
 Soil Map Unit Name: Palmyra gravelly loam, 0 to 3 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 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W014-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Swale within corner of active agricultural field.</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W014-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Eleocharis acicularis</i> / Needle spikerush	50	Yes	OBL
2. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	10	No	OBL
3. <i>Phragmites australis</i> / Common reed	2	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	62	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>60</u>	x 1 = <u>60</u>
FACW species <u>2</u>	x 2 = <u>4</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>62</u>	(A) <u>64</u> (B)

Prevalence Index = B/A = 1.03

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W014-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W015-1U  
 Investigator(s): BA GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Shoulderslope Local relief (concave, convex, none): convex Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.939315 Long: -75.709921 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Forested hill slope.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W015-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	70	Yes	FACU
2. <i>Fraxinus pennsylvanica</i> / Green ash	20	Yes	FACW
3. <i>Prunus serotina</i> / Black cherry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	100	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	30	Yes	FACW
2. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	15	Yes	FAC
3. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	No	FACU
4. <i>Valeriana officinalis</i> / Garden valerian	5	No	NI
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	60	= Total Cover	
<b>Woody Vine Stratum</b> (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 50	x 2 = 100
FAC species 15	x 3 = 45
FACU species 100	x 4 = 400
UPL species 5	x 5 = 25
Column Totals: 170	(A) 570 (B)

Prevalence Index = B/A = 3.35

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W015-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W015-1W  
 Investigator(s): BA, 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: 42.93928267 Long: -75.7099395 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W015-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.) Hillside seep drains west.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W015-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Betula alleghaniensis</i> / Yellow birch	10	Yes	FAC
2. <i>Acer saccharum</i> / Sugar maple	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Salix</i> / Willow	30	Yes	NI
2. <i>Rhamnus cathartica</i> / European buckthorn	5	No	FAC
3. <i>Betula alleghaniensis</i> / Yellow birch	5	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	40	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Packera aurea</i> / Golden groundsel	20	Yes	FACW
2. <i>Solidago gigantea</i> / Smooth goldenrod	15	Yes	FACW
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes	FAC
4. <i>Onoclea sensibilis</i> / Sensitive fern	10	No	FACW
5. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattail	10	No	OBL
6. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No	OBL
7. <i>Eupatorium perfoliatum</i> / Common boneset	5	No	FACW
8. <i>Scirpus atrovirens</i> / Green bulrush	5	No	OBL
9. <i>Eutrochium maculatum</i> / Spotted trumpetweed	5	No	OBL
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 25	x 1 = 25
FACW species 50	x 2 = 100
FAC species 35	x 3 = 105
FACU species 5	x 4 = 20
UPL species 30	x 5 = 150
Column Totals: 145 (A)	400 (B)

Prevalence Index = B/A = 2.76

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation ☒   
 2 - Dominance Test is >50% ☒   
 3 - Prevalence Index ≤3.0<sup>1</sup> ☒   
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W015-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W016-1U  
 Investigator(s): BA, GH 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: 42.94059567 Long: -75.71492733 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Active ag field with oat species cover crop.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W016-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Avena</i> / Oat	60	Yes		NI
2. <i>Zea mays</i> / Corn	30	Yes		NI
3. <i>Alliaria petiolata</i> / Garlic-mustard	5	No		FACU
4. <i>Ranunculus acris</i> / Acrid buttercup	5	No		FAC
5. <i>Trifolium repens</i> / White clover	5	No		FACU
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	105	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	10	x 4 =	40
UPL species	90	x 5 =	450
Column Totals:	105	(A)	505 (B)

Prevalence Index = B/A = 4.81

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W016-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W016-1W  
 Investigator(s): BA, GH 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: 42.94059733 Long: -75.7148585 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W016-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Reed canary stand within ag field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Micro topo created by consistent rutting from active ag practices.		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Phalaris arundinacea</i> / Reed canary grass	95	Yes	FACW
2. <i>Rumex crispus</i> / Curly dock	5	No	FAC
3. <i>Lythrum salicaria</i> / Purple loosestrife	2	No	OBL
4. <i>Plantago major</i> / Common plantain	2	No	FACU
5. <i>Trifolium pratense</i> / Red clover	2	No	FACU
6. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	2	No	UPL
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	108	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	2	x 1 =	2	
FACW species	95	x 2 =	190	
FAC species	5	x 3 =	15	
FACU species	4	x 4 =	16	
UPL species	2	x 5 =	10	
Column Totals:	108	(A)	233	(B)

Prevalence Index = B/A = 2.16

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 33-W016-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W017-1U  
 Investigator(s): BA, GH 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: 42.93943217 Long: -75.71491933 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Poa</i> / Bluegrass	50	Yes	NI
2. <i>Trifolium repens</i> / White clover	10	No	FACU
3. <i>Plantago major</i> / Common plantain	10	No	FACU
4. <i>Plantago lanceolata</i> / Ribwort, English plantain	10	No	FACU
5. <i>Trifolium pratense</i> / Red clover	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	90	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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	40	x 4 =	160
UPL species	50	x 5 =	250
Column Totals:	90	(A)	410 (B)

Prevalence Index = B/A = 4.56

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W017-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W017-1W  
 Investigator(s): BA, 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: 42.9394635 Long: -75.71496567 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W017-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W017-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	5	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Phalaris arundinacea</i> / Reed canary grass	100	Yes	FACW	
2. <i>Impatiens capensis</i> / Spotted jewelweed	5	No	FACW	
3. <i>Cornus alba</i> / Red osier	5	No	FACW	
4. <i>Persicaria arifolia</i> / Halberd-leaf tearthumb	5	No	OBL	
5. <i>Solidago gigantea</i> / Smooth goldenrod	5	No	FACW	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	120	= 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 5	x 1 = 5
FACW species 115	x 2 = 230
FAC species 0	x 3 = 0
FACU species 5	x 4 = 20
UPL species 0	x 5 = 0
Column Totals: 125 (A)	255 (B)

Prevalence Index = B/A = 2.04

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W017-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W017-2U  
 Investigator(s): BA, GH 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: 42.94005083 Long: -75.71636783 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 15 to 25 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Active pastureland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W017-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Poa</i> / Bluegrass	40	Yes	NI
2. <i>Plantago major</i> / Common plantain	20	Yes	FACU
3. <i>Cirsium vulgare</i> / Bullthistle, Bull thistle	20	Yes	FACU
4. <i>Chrysanthemum</i> / Daisy	10	No	NI
5. <i>Erigeron annuus</i> / Annual fleabane	10	No	FACU
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	100	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">50</span>	x 4 = <span style="float: right;">200</span>
UPL species <span style="float: right;">50</span>	x 5 = <span style="float: right;">250</span>
Column Totals: <span style="float: right;">100</span>	(A) <span style="float: right;">450</span> (B)

Prevalence Index = B/A = 4.5

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W017-2U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W017-2W  
 Investigator(s): BA, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Channel Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94008333 Long: -75.71640167 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 15 to 25 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W017-2W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Swale in active pastureland. Man-made channel that diverts water from stream for cattle now functioning as wetland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W017-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Veronica anagallis-aquatica</i> / Water speedwell	80	Yes	OBL	
2. <i>Elymus riparius</i> / River-bank wild rye	5	No	FACW	
3. <i>Glyceria</i> / Mannagrass	5	No	NI	
4. <i>Rumex crispus</i> / Curly dock	2	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	92	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	80	x 1 =	80	
FACW species	5	x 2 =	10	
FAC species	2	x 3 =	6	
FACU species	0	x 4 =	0	
UPL species	5	x 5 =	25	
Column Totals:	92	(A)	121	(B)

Prevalence Index = B/A = 1.32

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W017-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 15"



# 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: 33-W018-1U  
 Investigator(s): BA, GH 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: 42.93943217 Long: -75.71491933 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 _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W018-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Trifolium repens</i> / White clover	30	Yes	FACU	
2. <i>Trifolium pratense</i> / Red clover	30	Yes	FACU	
3. <i>Poa</i> / Bluegrass	20	Yes	NI	
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	10	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	90	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	70	x 4 =	280	
UPL species	20	x 5 =	100	
Column Totals:	90	(A)	380	(B)

Prevalence Index = B/A = 4.22

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W018-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 33-W018-1W  
 Investigator(s): BA, 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93917317 Long: -75.7149585 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W018-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Swale on hillslope within mowed ag field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W018-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Glyceria</i> / Mannagrass	25	Yes	FACW
2. <i>Scirpus atrovirens</i> / Green bulrush	10	Yes	OBL
3. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattai	5	No	OBL
4. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	5	No	OBL
5. <i>Carex</i> / Sedge	5	No	FACW
6. <i>Rumex crispus</i> / Curly dock	5	No	FAC
7. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No	OBL
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	60	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>25</u>	x 1 = <u>25</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u> (A)	<u>100</u> (B)

Prevalence Index = B/A = 1.67

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W018-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W019-1U  
Investigator(s): BA 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 (%): 3-7  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938939 Long: -75.714469 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

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

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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: 33-W019-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
(Plot size: 15 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
(Plot size: 5 Feet)				
1. <i>Poa</i> / Bluegrass	50	Yes		NI
2. <i>Trifolium pratense</i> / Red clover	15	No		FACU
3. <i>Trifolium repens</i> / White clover	15	No		FACU
4. <i>Galium</i> / Bedstraw	5	No		NI
5. <i>Plantago major</i> / Common plantain	5	No		FACU
6. <i>Plantago lanceolata</i> / Ribwort, English plantain	5	No		FACU
7.				
8.				
9.				
10.				
11.				
12.				
	95	= Total Cover		
(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 <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">40</span>	x 4 = <span style="float: right;">160</span>
UPL species <span style="float: right;">55</span>	x 5 = <span style="float: right;">275</span>
Column Totals: <span style="float: right;">95</span>	(A) <span style="float: right;">435</span> (B)

Prevalence Index = B/A = 4.58

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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



## SOIL

Sampling Point: 33-W019-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W019-1W  
 Investigator(s): BA, 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938936 Long: -75.71444833 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W019-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Scirpus atrovirens</i> / Green bulrush	30	Yes	OBL
2. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattail	20	Yes	OBL
3. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	20	Yes	OBL
4. <i>Carex</i> / Sedge	10	No	NI
5. <i>Eupatorium perfoliatum</i> / Common boneset	5	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	85	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	70	x 1 =	70
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	85	(A)	130 (B)

Prevalence Index = B/A = 1.53

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 33-W019-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

2 cm Muck (A10)	(LRR K, L, MLRA 149B)
X 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)	

<sup>3</sup>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: 33-W020-1U  
 Investigator(s): BA, GH 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: 42.93903633 Long: -75.7161965 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 15 to 25 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Active pastureland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-W020-1U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>30 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>15 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>5 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr> <td>1.</td> <td><u><i>Trifolium repens</i> / White clover</u></td> <td style="text-align: center;">90</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>2.</td> <td><u><i>Plantago major</i> / Common plantain</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>3.</td> <td><u><i>Taraxacum officinale</i> / Red seeded dandelion, Common dan</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FACU</td> </tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>100</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: <u>30 Feet</u>)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center; border-top: 1px solid black;"><u>0</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: <u>30 Feet</u> )	Absolute % Cover	Dominant Species?	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(7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> </div> <div style="padding: 5px;"> <b>Hydrophytic Vegetation Present?</b>      Yes <u>      </u>      No <u>  X  </u> </div>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u>	(A) <u>400</u> (B)
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## SOIL

Sampling Point: 33-W020-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W020-1W  
 Investigator(s): BA, 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.939005 Long: -75.7161565 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 15 to 25 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W020-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs in swale in active pastureland. Soils in wetland are not underlain with rocky material. Some pitting observed where standing water is accumulating created by cattle.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____

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

Remarks:



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W020-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Carex</i> / Sedge	30	Yes		FACW
2. <i>Poa</i> / Bluegrass	20	Yes		NI
3. <i>Trifolium repens</i> / White clover	15	Yes		FACU
4. <i>Ranunculus acris</i> / Acrid buttercup	15	Yes		FAC
5. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	No		OBL
6. <i>Veronica anagallis-aquatica</i> / Water speedwell	10	No		OBL
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	100	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**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	20	x 1 =	20	
FACW species	30	x 2 =	60	
FAC species	15	x 3 =	45	
FACU species	15	x 4 =	60	
UPL species	20	x 5 =	100	
Column Totals:	100	(A)	285	(B)

Prevalence Index = B/A = 2.85

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
X 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 \_\_\_\_\_

## SOIL

Sampling Point: 33-W020-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W021-1U  
 Investigator(s): BA, 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9403665 Long: -75.71759417 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W021-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Trifolium pratense</i> / Red clover	50	Yes	FACU
2. <i>Plantago major</i> / Common plantain	15	No	FACU
3. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	No	OBL
4. <i>Poa</i> / Bluegrass	10	No	NI
5. <i>Rumex crispus</i> / Curly dock	5	No	FAC
6. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC
7. <i>Cirsium vulgare</i> / Bullthistle, Bull thistle	2	No	FACU
8. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	2	No	FACU
9.			
10.			
11.			
12.			
	99	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	69	x 4 =	276
UPL species	10	x 5 =	50
Column Totals:	99	(A)	366 (B)

Prevalence Index = B/A = 3.7

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W021-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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"

# 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: 33-W021-1W  
 Investigator(s): BA, 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: 42.9403615 Long: -75.7175885 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W021-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W021-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Veronica anagallis-aquatica</i> / Water speedwell	15	Yes	OBL
2. <i>Glyceria</i> / Mannagrass	10	Yes	FAC
3. <i>Eutrochium maculatum</i> / Spotted trumpetweed	5	No	OBL
4. <i>Carex</i> / Sedge	5	No	FACW
5. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>25</u>	x 1 = <u>25</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>40</u>	(A) <u>65</u> (B)

Prevalence Index = B/A = 1.63

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W021-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W022-1U  
 Investigator(s): BA, GH 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: 42.93896767 Long: -75.71718867 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W022-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	
Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Solidago canadensis</i> / Canada goldenrod	90	Yes	FACU
2.	<i>Asclepias syriaca</i> / Common milkweed	20	No	UPL
3.	<i>Rubus occidentalis</i> / Black raspberry	10	No	NI
4.	<i>Alliaria petiolata</i> / Garlic-mustard	5	No	FACU
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		125	= Total Cover	
Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 95	x 4 = 380
UPL species 30	x 5 = 150
Column Totals: 125 (A)	530 (B)

Prevalence Index = B/A = 4.24

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W022-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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 15 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: 33-W022-1W  
 Investigator(s): BA, 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938964 Long: -75.71719333 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W022-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input checked="" type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W022-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Glyceria striata</i> / Fowl mannagrass, Ridged manna grass	50	Yes	OBL
2. <i>Eutrochium maculatum</i> / Spotted trumpetweed	15	No	OBL
3. <i>Carex</i> / Sedge	10	No	NI
4. <i>Solidago canadensis</i> / Canada goldenrod	10	No	FACU
5. <i>Veronica anagallis-aquatica</i> / Water speedwell	10	No	OBL
6. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	2	No	OBL
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	97	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 <u>77</u>	x 1 = <u>77</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>97</u>	(A) <u>167</u> (B)

Prevalence Index = B/A = 1.72

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W022-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W023-1U  
 Investigator(s): BA 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 (%): 2-4  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93815983 Long: -75.71787983 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Recently mowed upland ag field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W023-1U

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	70	Yes	FACU
2. <i>Trifolium pratense</i> / Red clover	10	No	FACU
3. <i>Fragaria</i> / Strawberry	5	No	NI
4. <i>Plantago major</i> / Common plantain	5	No	FACU
5. <i>Plantago lanceolata</i> / Ribwort, English plantain	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 <u>0</u>	x 1 =	<u>0</u>	
FACW species <u>0</u>	x 2 =	<u>0</u>	
FAC species <u>0</u>	x 3 =	<u>0</u>	
FACU species <u>90</u>	x 4 =	<u>360</u>	
UPL species <u>5</u>	x 5 =	<u>25</u>	
Column Totals: <u>95</u>	(A)	<u>385</u>	(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<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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



## SOIL

Sampling Point: 33-W023-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 33-W023-1W  
 Investigator(s): BA 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 (%): 1-3  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93815617 Long: -75.71785667 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly silt loam, 8 to 15 percent slopes NWI classification: PFO1E

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W023-1W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) Slight drop in elevation compared to adjacent active ag field		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W023-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet )			
1. <i>Phalaris arundinacea</i> / Reed canary grass	85	Yes	FACW
2. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC
4. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	110	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	110	(A)	240 (B)

Prevalence Index = B/A = 2.18

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W023-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/10/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W024-1U  
 Investigator(s): BA, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9507215 Long: -75.770635 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 _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W024-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	70	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	15	No	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	85	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	20	Yes	FACU	
2. <i>Cornus racemosa</i> / Gray dogwood	10	Yes	FAC	
3. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
	35	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Caulophyllum thalictroides</i> / Blue cohosh	10	Yes	NI	
2. <i>Acer saccharum</i> / Sugar maple	5	Yes	FACU	
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	
4. <i>Impatiens capensis</i> / Spotted jewelweed	2	No	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	22	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	5	Yes	NI	
2. _____				
3. _____				
4. _____				
	5	= 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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 7	x 2 = 14
FAC species 10	x 3 = 30
FACU species 115	x 4 = 460
UPL species 15	x 5 = 75
Column Totals: 147 (A)	579 (B)

Prevalence Index = B/A = 3.94

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W024-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/10/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W024-1W  
 Investigator(s): BA, 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: 42.9507185 Long: -75.7706605 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 3 to 8 percent slopes NWI classification: PSS1E

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W024-1W PFO</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>2</u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W024-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	25	Yes	FACU	
2. <i>Betula alleghaniensis</i> / Yellow birch	10	Yes	FAC	
3. <i>Tilia americana</i> / American basswood	2	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	37	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Acer saccharum</i> / Sugar maple	10	Yes	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	20	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	90	Yes	FACW	
2. <i>Impatiens capensis</i> / Spotted jewelweed	10	No	FACW	
3. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU	
4. <i>Geum canadense</i> / White avens	5	No	FAC	
5. <i>Carex lurida</i> / Shallow sedge	2	No	OBL	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	112	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**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	2	x 1 =	2
FACW species	110	x 2 =	220
FAC species	15	x 3 =	45
FACU species	42	x 4 =	168
UPL species	0	x 5 =	0
Column Totals:	169	(A)	435 (B)

Prevalence Index = B/A = 2.57

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 33-W024-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
Applicant/Owner: Liberty Renewablese State: New York Sampling Point: 33-W025-1U  
Investigator(s): BA, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison Count  
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94919067 Long: -75.76876733 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.

<table><tr><td>Hydrophytic Vegetation Present?</td><td>Yes _____</td><td>No <u>X</u></td></tr><tr><td>Hydric Soil Present?</td><td>Yes <u>X</u></td><td>No _____</td></tr><tr><td>Wetland Hydrology Present?</td><td>Yes _____</td><td>No <u>X</u></td></tr></table>	Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Hydric Soil Present?	Yes <u>X</u>	No _____	Wetland Hydrology Present?	Yes _____	No <u>X</u>	<table><tr><td><b>Is the Sampled Area</b></td></tr><tr><td><b>within a Wetland?</b> Yes _____ No <u>X</u></td></tr><tr><td>If yes, optional Wetland Site ID: _____</td></tr></table>	<b>Is the Sampled Area</b>	<b>within a Wetland?</b> Yes _____ No <u>X</u>	If yes, optional Wetland Site ID: _____
Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>											
Hydric Soil Present?	Yes <u>X</u>	No _____											
Wetland Hydrology Present?	Yes _____	No <u>X</u>											
<b>Is the Sampled Area</b>													
<b>within a Wetland?</b> Yes _____ No <u>X</u>													
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)

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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: 33-W025-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	80	Yes	FACU	
2. <i>Trifolium pratense</i> / Red clover	10	No	FACU	
3. <i>Trifolium repens</i> / White clover	10	No	FACU	
4. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	105	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	105	x 4 =	420	
UPL species	0	x 5 =	0	
Column Totals:	105	(A)	420	(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<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W025-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W025-1W  
 Investigator(s): BA, 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: 42.9491915 Long: -75.76869083 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W025-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W025-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1. <i>Salix</i> / Willow	20	Yes		FAC
2.				
3.				
4.				
5.				
6.				
7.				
	20	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1. <i>Phragmites australis</i> / Common reed	20	Yes		FACW
2. <i>Euthamia graminifolia</i> / Flat-top goldentop	15	Yes		FAC
3. <i>Carex</i> / Sedge	15	Yes		FACW
4. <i>Phalaris arundinacea</i> / Reed canary grass	10	No		FACW
5. <i>Eutrochium maculatum</i> / Spotted trumpetweed	5	No		OBL
6. <i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattail	5	No		OBL
7. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	5	No		OBL
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: 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 <span style="float: right;">15</span>	x 1 = <span style="float: right;">15</span>
FACW species <span style="float: right;">45</span>	x 2 = <span style="float: right;">90</span>
FAC species <span style="float: right;">35</span>	x 3 = <span style="float: right;">105</span>
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">95</span>	(A) <span style="float: right;">210</span> (B)

Prevalence Index = B/A = 2.21

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W025-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W026-1U  
 Investigator(s): BA, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9491795 Long: -75.7698675 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W026-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	15	Yes	NI
2. <i>Polystichum acrostichoides</i> / Christmas fern	10	Yes	FACU
3. <i>Menispermum canadense</i> / Canadian moonseed	10	Yes	FAC
4. <i>Heracleum maximum</i> / Common cowparsnip, Cow parsnip, C	2	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	37	= Total Cover	
<b>Woody Vine Stratum</b> (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 7	x 2 = 14
FAC species 10	x 3 = 30
FACU species 45	x 4 = 180
UPL species 15	x 5 = 75
Column Totals: 77 (A)	299 (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<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W026-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W026-1W  
 Investigator(s): BA, 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: 42.9490965 Long: -75.76981517 Datum: WGS 1984  
 Soil Map Unit Name: Lima silt loam, 3 to 8 percent slopes NWI classification: PFO1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W026-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.) Forested wetland occurring in lowland, associated with NWI mapped wetland PFO1E	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>8</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W026-1W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharinum</i> / Silver maple	70	Yes	FACW
2. <i>Acer rubrum</i> / Red maple	10	No	FAC
3. <i>Acer saccharum</i> / Sugar maple	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	90	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Ulmus americana</i> / American elm	5	Yes	FACW
2. <i>Acer saccharum</i> / Sugar maple	5	Yes	FACU
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes	FACW
3. <i>Glyceria</i> / Mannagrass	10	Yes	NI
4. <i>Impatiens capensis</i> / Spotted jewelweed	5	No	FACW
5. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	5	No	FACU
6. <i>Ulmus americana</i> / American elm	2	No	FACW
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	42	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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 0	x 1 = 0
FACW species 107	x 2 = 214
FAC species 10	x 3 = 30
FACU species 20	x 4 = 80
UPL species 10	x 5 = 50
Column Totals: 147 (A)	374 (B)

Prevalence Index = B/A = 2.54

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 33-W026-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W027-1U  
 Investigator(s): BA, GH 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: 42.96268733 Long: -75.73457667 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W027-1U

<div style="display: flex; justify-content: space-between;"> <div> <b>Tree Stratum</b> (Plot size: 30 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div>                     1. _____                      2. _____                      3. _____                      4. _____                      5. _____                      6. _____                      7. _____                 </div> <div style="text-align: right; margin-top: 10px;">                     0 = Total Cover                 </div>				<b>Dominance Test worksheet:</b> 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)															
<div style="display: flex; justify-content: space-between;"> <div> <b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div>                     1. _____                      2. _____                      3. _____                      4. _____                      5. _____                      6. _____                      7. _____                 </div> <div style="text-align: right; margin-top: 10px;">                     0 = Total Cover                 </div>				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 10</td> <td>x 4 = 40</td> </tr> <tr> <td>UPL species 20</td> <td>x 5 = 100</td> </tr> <tr> <td>Column Totals: 30 (A)</td> <td>140 (B)</td> </tr> </table> Prevalence Index = B/A = 4.67		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 20	x 5 = 100	Column Totals: 30 (A)	140 (B)
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 20	x 5 = 100																		
Column Totals: 30 (A)	140 (B)																		
<div style="display: flex; justify-content: space-between;"> <div> <b>Herb Stratum</b> (Plot size: 5 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div>                     1. <i>Glycine max</i> / Soybean 20 Yes NI                      2. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan 5 No FACU                      3. <i>Solanum carolinense</i> / Carolina horse nettle, Carolina horse- 5 No FACU                      4. _____                      5. _____                      6. _____                      7. _____                      8. _____                      9. _____                      10. _____                      11. _____                      12. _____                 </div> <div style="text-align: right; margin-top: 10px;">                     30 = Total Cover                 </div>				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation <sup>1</sup> (Explain )  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<div style="display: flex; justify-content: space-between;"> <div> <b>Woody Vine Stratum</b> (Plot size: 30 Feet)                 </div> <div>                     Absolute % Cover    Dominant Species?    Indicator Status                 </div> </div> <div>                     1. _____                      2. _____                      3. _____                      4. _____                 </div> <div style="text-align: right; margin-top: 10px;">                     0 = Total Cover                 </div>				<b>Definitions of Vegetation Strata</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.															
<div style="display: flex; justify-content: space-between;"> <div> <b>Remarks:</b> (Explain alternative procedures here or in a separate report.)                 </div> <div> <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u> </div> </div>																			



## SOIL

Sampling Point: 33-W027-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	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: 07/11/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W027-1W  
 Investigator(s): BA, 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: 42.96264683 Long: -75.73449817 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W027-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

 Sampling Point: 33-W027-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: <u>30 Feet</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>0</u>	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: <u>15 Feet</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>0</u>	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: <u>5 Feet</u> )			
1. <u>Carex / Sedge</u>	<u>75</u>	Yes	FACW
2. <u>Glycine max / Soybean</u>	<u>10</u>	No	NI
3. <u>Taraxacum officinale / Red seeded dandelion, Common dan</u>	<u>1</u>	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	<u>86</u>	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: <u>30 Feet</u> )			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	<u>0</u>	= 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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>75</u>	x 2 = <u>150</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>1</u>	x 4 = <u>4</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>86</u>	(A) <u>204</u> (B)

Prevalence Index = B/A = 2.37

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W027-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W028-1U  
 Investigator(s): BA, GH 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: 42.940543 Long: -75.761706 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Mowed pastureland	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W028-1U

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td><i>Phleum pratense</i> / Common timothy, Cultivated timothy</td><td style="text-align: center;">75</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>2.</td><td><i>Plantago lanceolata</i> / Ribwort, English plantain</td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>3.</td><td><i>Centaurea jacea</i> / Brownray knapweed</td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>4.</td><td><i>Ranunculus acris</i> / Acrid buttercup</td><td style="text-align: center;">2</td><td style="text-align: center;">No</td><td style="text-align: center;">FAC</td></tr> <tr><td>5.</td><td><i>Galium</i> / Bedstraw</td><td style="text-align: center;">2</td><td style="text-align: center;">No</td><td style="text-align: center;">NI</td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">89</td> <td colspan="2">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2">= Total Cover</td> </tr> </table>	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)	Absolute % Cover	Dominant Species?	Indicator Status	1.					2.					3.					4.					5.					6.					7.							0	= Total Cover		Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1.	<i>Phleum pratense</i> / Common timothy, Cultivated timothy	75	Yes	FACU	2.	<i>Plantago lanceolata</i> / Ribwort, English plantain	5	No	FACU	3.	<i>Centaurea jacea</i> / Brownray knapweed	5	No	FACU	4.	<i>Ranunculus acris</i> / Acrid buttercup	2	No	FAC	5.	<i>Galium</i> / Bedstraw	2	No	NI	6.					7.					8.					9.					10.					11.					12.							89	= Total Cover		Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 33-W028-1U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/3	100					Silt Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

<sup>3</sup>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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W028-1W  
 Investigator(s): BA, 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: 42.9404765 Long: -75.76172617 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W028-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W028-1W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	
Herb Stratum	(Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Carex</i> / Sedge	50	Yes	FACW
2.	<i>Ranunculus acris</i> / Acrid buttercup	30	Yes	FAC
3.	<i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	5	No	OBL
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		85	= Total Cover	
Woody Vine Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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	5	x 1 =	5
FACW species	50	x 2 =	100
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85	(A)	195 (B)

Prevalence Index = B/A = 2.29

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W028-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W029-1U  
 Investigator(s): BA, 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: 42.938792 Long: -75.76013233 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W029-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	70	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	10	No	FACU	
3. <i>Fagus grandifolia</i> / American beech	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	90	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	15	Yes	FACW	
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU	
3. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	10	Yes	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	35	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	20	Yes	FACU	
2. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
3. <i>Circaea lutetiana</i> / Broadleaf enchanter's nightshade	5	No	NI	
4. <i>Solidago canadensis</i> / Canada goldenrod	5	No	FACU	
5. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	5	No	FAC	
6. <i>Symphyotrichum</i> / Aster	5	No	FAC	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	50	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (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 25	x 2 = 50
FAC species 10	x 3 = 30
FACU species 135	x 4 = 540
UPL species 5	x 5 = 25
Column Totals: 175 (A)	645 (B)

Prevalence Index = B/A = 3.69

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W029-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/13/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W029-1W  
 Investigator(s): BA, 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 (%): 6-11  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93879333 Long: -75.760245 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>33-W029-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W029-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Crataegus</i> / Hawthorn	5	Yes	FAC	
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	80	Yes	OBL	
2. <i>Ranunculus acris</i> / Acrid buttercup	50	Yes	FAC	
3. <i>Impatiens capensis</i> / Spotted jewelweed	20	No	FACW	
4. <i>Rumex obtusifolius</i> / Broadleaf dock, Bitter dock	15	No	FAC	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	165	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
	0	= Total Cover		

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

**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	80	x 1 =	80	
FACW species	30	x 2 =	60	
FAC species	70	x 3 =	210	
FACU species	15	x 4 =	60	
UPL species	0	x 5 =	0	
Column Totals:	195	(A)	410	(B)

Prevalence Index = B/A = 2.1

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

## SOIL

Sampling Point: 33-W029-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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) <b>(LRR R, MLRA 149B)</b>
___	Thin Dark Surface (S9) <b>(LRR R, MLRA 149B)</b>
___	Loamy Mucky Mineral (F1) <b>(LRR K, L)</b>
<u>X</u>	Loamy Gleyed Matrix (F2)
<u>X</u>	Depleted Matrix (F3)
<u>X</u>	Redox Dark Surface (F6)
___	Depleted Dark Surface (F7)
___	Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 08/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W029-2U  
 Investigator(s): JK JP 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: 42.93944333 Long: -75.76088917 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland point on hillslope. At higher elevation than adjacent wetland. Area is in active cattle pasture.	

## 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: 33-W029-2U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Ostrya virginiana</i> / Eastern hop-hornbeam	30	Yes	FACU
2. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU
3. <i>Crataegus</i> / Hawthorn	5	No	NI
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	50	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW
2. <i>Fagus grandifolia</i> / American beech	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Carex gracillima</i> / Graceful sedge	35	Yes	FACU
2. <i>Rubus</i> / Blackberry	25	Yes	FACU
3. <i>Fragaria virginiana</i> / Mountain strawberry	10	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	70	= Total Cover	
<b>Woody Vine Stratum</b> (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 120	x 4 = 480
UPL species 5	x 5 = 25
Column Totals: 135 (A)	525 (B)

Prevalence Index = B/A = 3.89

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W029-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

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)

<sup>3</sup>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 16".

# 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: 08/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W029-2W  
 Investigator(s): JK JP Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 6-11  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93957267 Long: -75.76087333 Datum: WGS 1984  
 Soil Map Unit Name: Mardin channery silt loam, 8 to 15 percent slopes NWI classification: None

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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W029-2W PFO</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Wet hillslope with strong drainage patterns. Area is in an active cattle pasture.</u>		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W029-2W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
(Plot size: 15 Feet)			
1. <i>Rhamnus cathartica</i> / European buckthorn	5	Yes	FAC
2. <i>Ulmus rubra</i> / Slippery elm	5	Yes	FAC
3. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW
4. <i>Lonicera morrowii</i> / Morrow's honeysuckle	5	Yes	FACU
5.			
6.			
7.			
	20	= Total Cover	
(Plot size: 5 Feet)			
1. <i>Impatiens capensis</i> / Spotted jewelweed	55	Yes	FACW
2. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	15	No	OBL
3. <i>Ranunculus repens</i> / Crowfoot, Creeping buttercup	5	No	FAC
4. <i>Geum laciniatum</i> / Rough avens	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
(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	15	x 1 =	15
FACW species	65	x 2 =	130
FAC species	15	x 3 =	45
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100	(A)	210 (B)

Prevalence Index = B/A = 2.1

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

Canopy not part of wetland. Sugar maple 25%, ironwood 10%, black cherry 5%, basswood 5%

## SOIL

Sampling Point: 33-W029-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

☐ 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)

<sup>3</sup>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/gravel refusal at 8".

# 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: 08/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W029-3U  
 Investigator(s): JK JP Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): none Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94012617 Long: -75.76138833 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland point in mowed pasture. Some surface flow due to recent precipitation but dissipates quickly	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W029-3U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Malus</i> / Apple	15	Yes	NI	
2.				
3.				
4.				
5.				
6.				
7.				
	15	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	10	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Trifolium pratense</i> / Red clover	15	Yes	FACU	
2. <i>Plantago major</i> / Common plantain	10	Yes	FACU	
3. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	5	Yes	FACU	
4. <i>Centaurea jacea</i> / Brownray knapweed	5	Yes	FACU	
5. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	5	Yes	UPL	
6. <i>Dactylis glomerata</i> / Orchardgrass	5	Yes	FACU	
7. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	5	Yes	FACU	
8. <i>Ranunculus acris</i> / Acrid buttercup	5	Yes	FAC	
9.				
10.				
11.				
12.				
	55	= Total Cover		
<b>Woody Vine Stratum</b> (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: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 10.0 (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 55	x 4 = 220
UPL species 20	x 5 = 100
Column Totals: 80 (A)	335 (B)

Prevalence Index = B/A = 4.19

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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: 33-W029-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 08/15/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 33-W029-3W  
 Investigator(s): JK JP Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 4-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94003817 Long: -75.76121083 Datum: WGS 1984  
 Soil Map Unit Name: Honeoye silt loam, 8 to 15 percent slopes NWI classification: None

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>33-W029-3W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland flows out of forest into mowed pasture.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>6</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 33-W029-3W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Ranunculus repens</i> / Crowfoot, Creeping buttercup	40	Yes	FAC
2. <i>Ranunculus acris</i> / Acrid buttercup	20	Yes	FAC
3. <i>Myosotis scorpioides</i> / Forget me not, Water forget-me-not	15	No	OBL
4. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	15	No	OBL
5. <i>Trifolium pratense</i> / Red clover	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
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 <span style="float: right;">30</span>	x 1 = <span style="float: right;">30</span>
FACW species <span style="float: right;">0</span>	x 2 = <span style="float: right;">0</span>
FAC species <span style="float: right;">60</span>	x 3 = <span style="float: right;">180</span>
FACU species <span style="float: right;">5</span>	x 4 = <span style="float: right;">20</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">95 (A)</span>	<span style="float: right;">230 (B)</span>

Prevalence Index = B/A = 2.42

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 33-W029-3W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/28/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-UPL-008  
Investigator(s): JB, GH 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: 42.91510167 Long: -75.67971233 Datum: WGS 1984  
Soil Map Unit Name: Lansing gravelly 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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.)

Bowl shaped depression within green ash stand mixed with rubus and hawthorn, no hydric soils present.

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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-UPL-008

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	70	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	70	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Crataegus</i> / Hawthorn	30	Yes	NI	
2.				
3.				
4.				
5.				
6.				
7.				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	70	Yes	FACU	
2. <i>Geum canadense</i> / White avens	15	No	FAC	
3. <i>Hesperis matronalis</i> / Dame's rocket	10	No	FACU	
4. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No	FAC	
5. <i>Acer saccharum</i> / Sugar maple	5	No	FACU	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	110	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
	0	= Total Cover		

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

**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	70	x 2 =	140	
FAC species	25	x 3 =	75	
FACU species	85	x 4 =	340	
UPL species	30	x 5 =	150	
Column Totals:	210	(A)	705	(B)

Prevalence Index = B/A = 3.36

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 66-UPL-008

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/28/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-UPL-009  
 Investigator(s): JB, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.91466867 Long: -75.680566 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Terrace in forested area does not retain overland sheet flow, preventing hydrology from developing.

## HYDROLOGY

### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

### Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	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-UPL-009

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	70	Yes	FACW	
2.				
3.				
4.				
5.				
6.				
7.				
	70	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Crataegus</i> / Hawthorn	70	Yes	NI	
2. <i>Rhamnus cathartica</i> / European buckthorn	10	No	FAC	
3.				
4.				
5.				
6.				
7.				
	80	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Lysimachia nummularia</i> / Moneywort, Creeping-jenny	20	Yes	FACW	
2. <i>Geum canadense</i> / White avens	10	Yes	FAC	
3. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	10	Yes	UPL	
4. <i>Rubus allegheniensis</i> / Allegheny blackberry	5	No	FACU	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	45	= Total Cover		
<b>Woody Vine Stratum</b> (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 90	x 2 = 180
FAC species 20	x 3 = 60
FACU species 5	x 4 = 20
UPL species 80	x 5 = 400
Column Totals: 195	(A) 660 (B)

Prevalence Index = B/A = 3.38

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-UPL-009

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W001-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): convex Slope (%): 3-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95824283 Long: -75.74631733 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W001-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Prunus serotina</i> / Black cherry	30	Yes	FACU
2. <i>Fagus grandifolia</i> / American beech	10	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	40	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Acer rubrum</i> / Red maple	30	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Parathelypteris noveboracensis</i> / New york fern	80	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80	= Total Cover	
<b>Woody Vine Stratum</b> (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 110	x 3 = 330
FACU species 40	x 4 = 160
UPL species 0	x 5 = 0
Column Totals: 150 (A)	490 (B)

Prevalence Index = B/A = 3.27

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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-W001-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W001-1W  
 Investigator(s): ALME 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 (%): 0-2  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95827533 Long: -75.74634533 Datum: WGS 1984  
 Soil Map Unit Name: Mardin channery silt loam, 3 to 8 percent slopes NWI classification: PFO1E

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>66-W001-1W PFO</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W001-1W

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. <i>Acer rubrum</i> / Red maple</td><td style="text-align: center;">70</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FAC</td></tr> <tr><td>2. <i>Betula alleghaniensis</i> / Yellow birch</td><td style="text-align: center;">30</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FAC</td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">100</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum (Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. <i>Fraxinus pennsylvanica</i> / Green ash</td><td style="text-align: center;">5</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">5</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum (Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. <i>Thelypteris palustris</i> / Eastern marsh fern</td><td style="text-align: center;">10</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2. <i>Solidago rugosa</i> / Winkle-leaf goldenrod</td><td style="text-align: center;">5</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FAC</td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr><td>8. _____</td><td></td><td></td><td></td></tr> <tr><td>9. _____</td><td></td><td></td><td></td></tr> <tr><td>10. _____</td><td></td><td></td><td></td></tr> <tr><td>11. _____</td><td></td><td></td><td></td></tr> <tr><td>12. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">15</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum (Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td colspan="2" style="text-align: center; border-top: 1px solid black;">= Total Cover</td> </tr> </table>	Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Acer rubrum</i> / Red maple	70	Yes	FAC	2. <i>Betula alleghaniensis</i> / Yellow birch	30	Yes	FAC	3. _____				4. _____				5. _____				6. _____				7. _____					100	= Total Cover		Sapling/Shrub Stratum (Plot size: 15 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	2. _____				3. _____				4. _____				5. _____				6. _____				7. _____					5	= Total Cover		Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Thelypteris palustris</i> / Eastern marsh fern	10	Yes	FACW	2. <i>Solidago rugosa</i> / Winkle-leaf goldenrod	5	Yes	FAC	3. _____				4. _____				5. _____				6. _____				7. _____				8. _____				9. _____				10. _____				11. _____				12. _____					15	= Total Cover		Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	1. _____				2. _____				3. _____				4. _____					0	= Total Cover		<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Dominance Test worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">5 (A)</span>                       Total Number of Dominant Species Across All Strata: <span style="float: right;">5 (B)</span>                       Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">100.0 (A/B)</span> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Prevalence Index worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Total % Cover of:</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiply by:</th> </tr> <tr> <td>OBL species <span style="float: right;">0</span></td> <td>x 1 = <span style="float: right;">0</span></td> </tr> <tr> <td>FACW species <span style="float: right;">15</span></td> <td>x 2 = <span style="float: right;">30</span></td> </tr> <tr> <td>FAC species <span style="float: right;">105</span></td> <td>x 3 = <span style="float: right;">315</span></td> </tr> <tr> <td>FACU species <span style="float: right;">0</span></td> <td>x 4 = <span style="float: right;">0</span></td> </tr> <tr> <td>UPL species <span style="float: right;">0</span></td> <td>x 5 = <span style="float: right;">0</span></td> </tr> <tr> <td>Column Totals: <span style="float: right;">120 (A)</span></td> <td><span style="float: right;">345 (B)</span></td> </tr> </table> <p style="text-align: center; margin-top: 10px;">Prevalence Index = B/A = <span style="float: right;">2.88</span></p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Hydrophytic Vegetation Indicators:</b>  <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation  <input checked="" type="checkbox"/> 2 - Dominance Test is &gt;50%  <input checked="" type="checkbox"/> 3 - Prevalence Index ≤3.0<sup>1</sup>  <input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )                 </div> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <b>Definitions of Vegetation Strata</b>   <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                 </div> <div style="padding: 5px;"> <b>Hydrophytic Vegetation Present?</b> <span style="float: right;">Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></span> </div>	Total % Cover of:	Multiply by:	OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>	FACW species <span style="float: right;">15</span>	x 2 = <span style="float: right;">30</span>	FAC species <span style="float: right;">105</span>	x 3 = <span style="float: right;">315</span>	FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>	UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>	Column Totals: <span style="float: right;">120 (A)</span>	<span style="float: right;">345 (B)</span>
Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																																																																				
1. <i>Acer rubrum</i> / Red maple	70	Yes	FAC																																																																																																																																																																				
2. <i>Betula alleghaniensis</i> / Yellow birch	30	Yes	FAC																																																																																																																																																																				
3. _____																																																																																																																																																																							
4. _____																																																																																																																																																																							
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7. _____																																																																																																																																																																							
	100	= Total Cover																																																																																																																																																																					
Sapling/Shrub Stratum (Plot size: 15 Feet)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																																																																				
1. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW																																																																																																																																																																				
2. _____																																																																																																																																																																							
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7. _____																																																																																																																																																																							
	5	= Total Cover																																																																																																																																																																					
Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																																																																				
1. <i>Thelypteris palustris</i> / Eastern marsh fern	10	Yes	FACW																																																																																																																																																																				
2. <i>Solidago rugosa</i> / Winkle-leaf goldenrod	5	Yes	FAC																																																																																																																																																																				
3. _____																																																																																																																																																																							
4. _____																																																																																																																																																																							
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12. _____																																																																																																																																																																							
	15	= Total Cover																																																																																																																																																																					
Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																																																																				
1. _____																																																																																																																																																																							
2. _____																																																																																																																																																																							
3. _____																																																																																																																																																																							
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Total % Cover of:	Multiply by:																																																																																																																																																																						
OBL species <span style="float: right;">0</span>	x 1 = <span style="float: right;">0</span>																																																																																																																																																																						
FACW species <span style="float: right;">15</span>	x 2 = <span style="float: right;">30</span>																																																																																																																																																																						
FAC species <span style="float: right;">105</span>	x 3 = <span style="float: right;">315</span>																																																																																																																																																																						
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>																																																																																																																																																																						
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>																																																																																																																																																																						
Column Totals: <span style="float: right;">120 (A)</span>	<span style="float: right;">345 (B)</span>																																																																																																																																																																						
Remarks: (Explain alternative procedures here or in a separate report.)																																																																																																																																																																							

## SOIL

Sampling Point: 66-W001-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W002-1U  
 Investigator(s): ALME Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 4-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95757467 Long: -75.74473067 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W002-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Acer saccharum</i> / Sugar maple	60	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	60	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Viburnum lentago</i> / Nanny-berry	10	Yes	FAC
2. <i>Cornus sericea</i> / American dogwood	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Potentilla simplex</i> / Oldfield cinquefoil	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	= Total Cover	
<b>Woody Vine Stratum</b> (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	5	x 2 =	10	
FAC species	10	x 3 =	30	
FACU species	65	x 4 =	260	
UPL species	0	x 5 =	0	
Column Totals:	80	(A)	300	(B)

Prevalence Index = B/A = 3.75

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☒

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

## SOIL

Sampling Point: 66-W002-1U

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	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: 06/22/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W002-1W  
 Investigator(s): ALME 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: 42.95756783 Long: -75.74476467 Datum: WGS 1984  
 Soil Map Unit Name: Mardin 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W002-1W PSS</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): <u>8</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W002-1W

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Prunus serotina</i> / Black cherry	5	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	5	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Crataegus</i> / Hawthorn	30	Yes	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	30	Yes	FAC	
2. <i>Onoclea sensibilis</i> / Sensitive fern	15	Yes	FACW	
3. <i>Rubus occidentalis</i> / Black raspberry	15	Yes	NI	
4. <i>Symphotrichum novae-angliae</i> / New england american-ast	10	No	FACW	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	70	= Total Cover		
<b>Woody Vine Stratum</b> (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 25	x 2 = 50
FAC species 60	x 3 = 180
FACU species 5	x 4 = 20
UPL species 15	x 5 = 75
Column Totals: 105 (A)	325 (B)

Prevalence Index = B/A = 3.1

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W002-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W003-1U  
 Investigator(s): JB, AT 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 (%): 1-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.95425117 Long: -75.7398915 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W003-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1.				
2.				
3.				
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.				
	44	= 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 24	x 3 = 72
FACU species 80	x 4 = 320
UPL species 0	x 5 = 0
Column Totals: 149	(A) 482 (B)

Prevalence Index = B/A = 3.23

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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



## SOIL

Sampling Point: 66-W003-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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

# 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: 06/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W003-1W  
 Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave Slope (%): 1-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9543145 Long: -75.7400285 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W003-1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W003-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. <i>Salix</i> / Willow	60	Yes	FACW
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	25	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	85	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes	FACW
2. <i>Phragmites australis</i> / Common reed	15	Yes	FACW
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	5	No	FAC
4.			
5.			
6.			
7.			
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: 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 115	x 2 = 230
FAC species 5	x 3 = 15
FACU species 25	x 4 = 100
UPL species 0	x 5 = 0
Column Totals: 145 (A)	345 (B)

Prevalence Index = B/A = 2.38

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 X 2 - Dominance Test is >50%  
 X 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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-W003-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W004-1U  
 Investigator(s): JB, AT 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: 42.949642 Long: -75.74336283 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W004-1U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet)				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	90	Yes		FACU
2. <i>Crataegus</i> / Hawthorn	10	No		NI
3.				
4.				
5.				
6.				
7.				
	100	= Total Cover		
Herb Stratum (Plot size: 5 Feet)				
1. <i>Carex</i> / Sedge	20	Yes		FAC
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes		FAC
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes		FACW
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: 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	10	x 2 =	20
FAC species	35	x 3 =	105
FACU species	90	x 4 =	360
UPL species	10	x 5 =	50
Column Totals:	145	(A)	535 (B)

Prevalence Index = B/A = 3.69

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W004-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/20/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W004-1W  
 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94966633 Long: -75.74327333 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W004-1W</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W004-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	55	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	120	= 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 105	x 2 = 210
FAC species 50	x 3 = 150
FACU species 5	x 4 = 20
UPL species 0	x 5 = 0
Column Totals: 175	(A) 395 (B)

Prevalence Index = B/A = 2.26

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W004-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W004-2U  
 Investigator(s): JB, AT 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 (%): 5-10  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.949282 Long: -75.74362533 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W004-2U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Tsuga canadensis</i> / Eastern hemlock	80	Yes	FACU	
2. <i>Prunus serotina</i> / Black cherry	5	No	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	85	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Lonicera morrowii</i> / Morrow's honeysuckle	20	Yes	FACU	
2. <i>Crataegus</i> / Hawthorn	10	Yes	NI	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Symphytotrichum prenanthoides</i> / Crooked-stem american-as	10	Yes	FAC	
2. <i>Carex</i> / Sedge	10	Yes	FAC	
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
5. <i>Crataegus</i> / Hawthorn	5	No	NI	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	40	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (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 15	x 2 = 30
FAC species 20	x 3 = 60
FACU species 105	x 4 = 420
UPL species 15	x 5 = 75
Column Totals: 155 (A)	585 (B)

Prevalence Index = B/A = 3.77

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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-W004-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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**)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 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)

☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes	No	X
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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: 06/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W004-2W  
 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 (%): 1-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9491935 Long: -75.7435765 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W004-2W</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>24</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W004-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Eutrochium maculatum</i> / Spotted trumpetweed	5	Yes	OBL	
2. <i>Onoclea sensibilis</i> / Sensitive fern	5	Yes	FACW	
3. <i>Veratrum viride</i> / American false hellebore	5	Yes	FACW	
4. <i>Angelica atropurpurea</i> / Purple-stem angelica	5	Yes	OBL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	20	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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 <span style="float: right;">10</span>	x 1 = <span style="float: right;">10</span>
FACW species <span style="float: right;">10</span>	x 2 = <span style="float: right;">20</span>
FAC species <span style="float: right;">0</span>	x 3 = <span style="float: right;">0</span>
FACU species <span style="float: right;">0</span>	x 4 = <span style="float: right;">0</span>
UPL species <span style="float: right;">0</span>	x 5 = <span style="float: right;">0</span>
Column Totals: <span style="float: right;">20 (A)</span>	<span style="float: right;">30 (B)</span>

Prevalence Index = B/A = 1.5

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W004-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W004-3U  
 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 (%): 3-8  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94832383 Long: -75.74510133 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W004-3U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet)				
1. <i>Quercus rubra</i> / Northern red oak	25	Yes	FACU	
2.				
3.				
4.				
5.				
6.				
7.				
	25	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)				
1. <i>Crataegus</i> / Hawthorn	20	Yes	NI	
2. <i>Rhamnus cathartica</i> / European buckthorn	10	Yes	FAC	
3.				
4.				
5.				
6.				
7.				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet)				
1. <i>Dennstaedtia punctilobula</i> / Hay-scented fern	20	Yes	UPL	
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	Yes	FAC	
3. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
4. <i>Athyrium angustum</i> / Northern lady fern	5	No	FAC	
5. <i>Equisetum sylvaticum</i> / Woodland horsetail	5	No	FACW	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	45	= Total Cover		
<b>Woody Vine Stratum</b> (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 10	x 2 = 20
FAC species 25	x 3 = 75
FACU species 25	x 4 = 100
UPL species 40	x 5 = 200
Column Totals: 100 (A)	395 (B)

Prevalence Index = B/A = 3.95

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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-W004-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 06/21/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W004-3W  
 Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): concave Slope (%): 1-6  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94828417 Long: -75.74511433 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W004-3W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W004-3W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Equisetum arvense</i> / Common horsetail	30	Yes	FAC
2. <i>Onoclea sensibilis</i> / Sensitive fern	15	Yes	FACW
3. <i>Carex scoparia</i> / Pointed broom sedge	15	Yes	FACW
4. <i>Solidago gigantea</i> / Smooth goldenrod	10	No	FACW
5. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	10	No	OBL
6. <i>Scirpus atrovirens</i> / Green bulrush	5	No	OBL
7. <i>Cornus amomum</i> / Silky dogwood	5	No	FACW
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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	45	x 2 =	90
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90	(A)	195 (B)

Prevalence Index = B/A = 2.17

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W004-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W008-1U  
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 (%): 6-11  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.934721 Long: -75.70102033 Datum: WGS 1984  
Soil Map Unit Name: Lansing gravelly 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 <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>

#### 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.)  
Hillslope on side of where swale meets upland

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

#### Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	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-W008-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Malus</i> / Apple	20	Yes	NI	
2.				
3.				
4.				
5.				
6.				
7.				
	20	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Rhamnus cathartica</i> / European buckthorn	15	Yes	FAC	
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	15	Yes	FACU	
3.				
4.				
5.				
6.				
7.				
	30	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Rubus allegheniensis</i> / Allegheny blackberry	35	Yes	FACU	
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	20	Yes	FAC	
3. <i>Fraxinus pennsylvanica</i> / Green ash	10	No	FACW	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	65	= Total Cover		
<b>Woody Vine Stratum</b> (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	10	x 2 =	20
FAC species	35	x 3 =	105
FACU species	50	x 4 =	200
UPL species	20	x 5 =	100
Column Totals:	115	(A)	425 (B)

Prevalence Index = B/A = 3.7

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )  
  
<sup>1</sup>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-W008-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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 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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W008-1W  
 Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave Slope (%): 6-11  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.934702 Long: -75.7010535 Datum: WGS 1984  
 Soil Map Unit Name: Lansing gravelly 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W008-1W PEM</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland occurs as swale in a successional field.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>4</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> 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-W008-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet)				
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. <i>Onoclea sensibilis</i> / Sensitive fern	40	Yes		FACW
2. <i>Scirpus cyperinus</i> / Woolgrass	20	Yes		OBL
3. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	10	No		FAC
4. <i>Panicum</i> / Panicgrass	10	No		NI
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: 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 <u>20</u>	x 1 = <u>20</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>80</u> (A)	<u>180</u> (B)

Prevalence Index = B/A = 2.25

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W008-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W009-1U  
 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: 42.93925217 Long: -75.70713033 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 _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Hillslope of successional field</u>	

## 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-W009-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Centaurea jacea</i> / Brownray knapweed	30	Yes	FACU	
2. <i>Taraxacum officinale</i> / Red seeded dandelion, Common dan	25	Yes	FACU	
3. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	15	No	FACU	
4. <i>Plantago lanceolata</i> / Ribwort, English plantain	15	No	FACU	
5. <i>Galium</i> / Bedstraw	7	No	NI	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	92	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	0	x 3 =	0	
FACU species	85	x 4 =	340	
UPL species	7	x 5 =	35	
Column Totals:	92	(A)	375	(B)

Prevalence Index = B/A = 4.08

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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-W009-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W009-1W  
 Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Seep Local relief (concave, convex, none): convex Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.939262 Long: -75.707168 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W009-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.) <u>Seep in the middle of successional field</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W009-1W

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
(Plot size: 30 Feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Feet )				
1. <i>Salix</i> / Willow	30	Yes	NI	
2.				
3.				
4.				
5.				
6.				
7.				
	30	= Total Cover		
Herb Stratum (Plot size: 5 Feet )				
1. <i>Onoclea sensibilis</i> / Sensitive fern	20	Yes	FACW	
2. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes	FAC	
3. <i>Scirpus atrovirens</i> / Green bulrush	10	Yes	OBL	
4. <i>Rosa multiflora</i> / Multiflora rose, Multiflora rosa	10	Yes	FACU	
5. <i>Carex lurida</i> / Shallow sedge	10	Yes	OBL	
6. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	Yes	OBL	
7. <i>Solidago canadensis</i> / Canada goldenrod	10	Yes	FACU	
8. <i>Euthamia graminifolia</i> / Flat-top goldentop	10	Yes	FAC	
9. <i>Galium palustre</i> / Common marsh bedstraw	5	No	OBL	
10. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	5	No	OBL	
11. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
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: 6 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 40	x 1 = 40
FACW species 20	x 2 = 40
FAC species 30	x 3 = 90
FACU species 20	x 4 = 80
UPL species 30	x 5 = 150
Column Totals: 140 (A)	400 (B)

Prevalence Index = B/A = 2.86

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W009-1W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

\_\_\_\_\_ 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)

<sup>3</sup>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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W010-1U  
 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: 42.942726 Long: -75.73303417 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Hillslope adjacent to stream and wetland.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W010-1U

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30 Feet )				
1. <i>Populus tremuloides</i> / Quaking aspen	20	Yes	FACU	
2. <i>Acer saccharum</i> / Sugar maple	15	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	35	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	5	Yes	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	5	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5 Feet )				
1. <i>Fraxinus pennsylvanica</i> / Green ash	10	Yes	FACW	
2. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU	
3. <i>Solidago gigantea</i> / Smooth goldenrod	5	Yes	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	25	= Total Cover		
<b>Woody Vine Stratum</b> (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: 6 (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 20	x 2 = 40
FAC species 0	x 3 = 0
FACU species 45	x 4 = 180
UPL species 0	x 5 = 0
Column Totals: 65 (A)	220 (B)

Prevalence Index = B/A = 3.38

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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-W010-1U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type:

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	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: 07/05/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W010-1W  
 Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
 Landform (hillslope, terrace, etc): Seep Local relief (concave, convex, none): concave Slope (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94273233 Long: -75.73302417 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W010-1W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.) Hillside seep connecting to stream	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W010-1W

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td><i>Salix</i> / Willow</td><td style="text-align: center;">40</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td><i>Cornus amomum</i> / Silky dogwood</td><td style="text-align: center;">25</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">65</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td><i>Lonicera morrowii</i> / Morrow's honeysuckle</td><td style="text-align: center;">15</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>2.</td><td><i>Onoclea sensibilis</i> / Sensitive fern</td><td style="text-align: center;">15</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>3.</td><td><i>Fraxinus pennsylvanica</i> / Green ash</td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACW</td></tr> <tr><td>4.</td><td><i>Cornus amomum</i> / Silky dogwood</td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACW</td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table>	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.	<i>Salix</i> / Willow	40	Yes	FACW	2.	<i>Cornus amomum</i> / Silky dogwood	25	Yes	FACW	3.					4.					5.					6.					7.							65	= Total Cover		Herb Stratum	(Plot size: 5 Feet)				1.	<i>Lonicera morrowii</i> / Morrow's honeysuckle	15	Yes	FACU	2.	<i>Onoclea sensibilis</i> / Sensitive fern	15	Yes	FACW	3.	<i>Fraxinus pennsylvanica</i> / Green ash	5	No	FACW	4.	<i>Cornus amomum</i> / Silky dogwood	5	No	FACW	5.					6.					7.					8.					9.					10.					11.					12.							40	= Total Cover		Woody Vine Stratum	(Plot size: 30 Feet)				1.					2.					3.					4.							0	= Total Cover		<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</p> <p>Total Number of Dominant Species Across All Strata: 4 (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 (A/B)</p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Total % Cover of:</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 90</td> <td>x 2 = 180</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 15</td> <td>x 4 = 60</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 105 (A)</td> <td>240 (B)</td> </tr> </table> <p style="text-align: center;">Prevalence Index = B/A = 2.29</p> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input checked="" type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input checked="" type="checkbox"/> 3 - Prevalence Index ≤3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )</p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Vegetation Strata</b></p> <p><b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 90	x 2 = 180	FAC species 0	x 3 = 0	FACU species 15	x 4 = 60	UPL species 0	x 5 = 0	Column Totals: 105 (A)	240 (B)
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## SOIL

Sampling Point: 66-W010-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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-W011-1U  
 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: 42.94086467 Long: -75.73048067 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Hillslope in successional field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:          		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W011-1U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Malus</i> / Apple	30	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Symphyotrichum prenanthoides</i> / Crooked-stem american-as	15	Yes	FAC
2. <i>Euthamia graminifolia</i> / Flat-top goldentop	15	Yes	FAC
3. <i>Dactylis glomerata</i> / Orchardgrass	15	Yes	FACU
4. <i>Plantago lanceolata</i> / Ribwort, English plantain	10	No	FACU
5. <i>Fragaria</i> / Strawberry	5	No	NI
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1.			
2.			
3.			
4.			
	0	= Total Cover	

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

**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	30	x 3 =	90	
FACU species	25	x 4 =	100	
UPL species	35	x 5 =	175	
Column Totals:	90	(A)	365	(B)

Prevalence Index = B/A = 4.06

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 66-W011-1U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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-W011-1W  
 Investigator(s): JB, 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 (%): 0-5  
 Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94093567 Long: -75.73046617 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>66-W011-1W PEM</u>
Remarks: (Explain alternative procedures here or in a separate report.) Successional field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W011-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 15 Feet)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5 Feet)</b>				
1. <i>Scirpus atrovirens</i> / Green bulrush	40	Yes	OBL	
2. <i>Carex scoparia</i> / Pointed broom sedge	10	No	FACW	
3. <i>Carex lurida</i> / Shallow sedge	5	No	OBL	
4. <i>Onoclea sensibilis</i> / Sensitive fern	5	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	60	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30 Feet)</b>				
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	45	x 1 =	45	
FACW species	15	x 2 =	30	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	60	(A)	75	(B)

Prevalence Index = B/A = 1.25

**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W011-1W

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-2U  
 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: 42.939016 Long: -75.72685083 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Hillslope adjacent 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)

- ☐ 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-W011-2U

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 30 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 15 Feet)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(Plot size: 5 Feet)			
1. <i>Poa</i> / Bluegrass	30	Yes	NI
2. <i>Plantago major</i> / Common plantain	20	Yes	FACU
3. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	10	No	FACU
4. <i>Trifolium repens</i> / White clover	5	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	65	= Total Cover	

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
(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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>65</u>	(A) <u>290</u> (B)

Prevalence Index = B/A = 4.46

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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-W011-2U

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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: 07/06/2023  
 Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-2W  
 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: 42.939042 Long: -75.72687167 Datum: WGS 1984  
 Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1/EM1Bd

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 <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>66-W011-2W PSS</u>
Remarks: (Explain alternative procedures here or in a separate report.) <u>Bowl shaped depression/lowland with dense salix and surface water.</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>2</u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W011-2W

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Tree Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;">Absolute % Cover</th> <th style="text-align: center; border-bottom: 1px solid black;">Dominant Species?</th> <th style="text-align: center; border-bottom: 1px solid black;">Indicator Status</th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Sapling/Shrub Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 15 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td><i>Salix</i> / Willow</td><td style="text-align: center;">90</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Herb Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 5 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td><i>Onoclea sensibilis</i> / Sensitive fern</td><td style="text-align: center;">15</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td><i>Eupatorium perfoliatum</i> / Common boneset</td><td style="text-align: center;">10</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>3.</td><td><i>Cornus amomum</i> / Silky dogwood</td><td style="text-align: center;">10</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>4.</td><td><i>Typha angustifolia</i> / Narrow leaf cattail, Narrow-leaved cattai</td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">OBL</td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td></tr> <tr><td>11.</td><td></td><td></td><td></td><td></td></tr> <tr><td>12.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Woody Vine Stratum</th> <th style="text-align: left; border-bottom: 1px solid black;">(Plot size: 30 Feet)</th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> <th style="text-align: center; border-bottom: 1px solid black;"></th> </tr> <tr><td>1.</td><td></td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	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(7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.28 ft in height.</p> <p><b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species 5	x 1 = 5	FACW species 125	x 2 = 250	FAC species 0	x 3 = 0	FACU species 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 130 (A)	255 (B)
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## SOIL

Sampling Point: 66-W011-2W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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-W011-3U  
 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: 42.9381475 Long: -75.72687033 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Hillslope dominated by quaking aspen</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W011-3U

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet)			
1. <i>Populus tremuloides</i> / Quaking aspen	30	Yes	FACU
2. <i>Viburnum lentago</i> / Nanny-berry	15	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	45	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet)			
1. <i>Cornus racemosa</i> / Gray dogwood	10	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	10	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet)			
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	15	Yes	FAC
2. <i>Fragaria vesca</i> / Wild strawberry, Wood strawberry	10	Yes	UPL
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	35	= Total Cover	
<b>Woody Vine Stratum</b> (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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 10	x 2 = 20
FAC species 40	x 3 = 120
FACU species 30	x 4 = 120
UPL species 10	x 5 = 50
Column Totals: 90 (A)	310 (B)

Prevalence Index = B/A = 3.44

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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-W011-3U

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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-W011-3W  
Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County  
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): convex Slope (%): 0-5  
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.938192 Long: -75.72688633 Datum: WGS 1984  
Soil Map Unit Name: Chippewa silt loam 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-W011-3W PSS

Remarks: (Explain alternative procedures here or in a separate report.)  
Salix and wet soils define wetland boundary

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

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? Yes        No X Depth (inches):         
(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-W011-3W

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30 Feet )			
1. <i>Populus tremuloides</i> / Quaking aspen	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 15 Feet )			
1. <i>Salix</i> / Willow	65	Yes	NI
2. <i>Viburnum</i> / Viburnum	5	No	NI
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5 Feet )			
1. <i>Solidago rugosa</i> / Wrinkle-leaf goldenrod	35	Yes	FAC
2. <i>Osmunda spectabilis</i> / Royal fern	20	Yes	OBL
3. <i>Onoclea sensibilis</i> / Sensitive fern	10	Yes	FACW
4. <i>Juncus effusus</i> / Common bog rush, Soft or lamp rush	10	Yes	OBL
5. <i>Carex crinita</i> / Fringed sedge	10	Yes	OBL
6. <i>Lonicera morrowii</i> / Morrow's honeysuckle	10	Yes	FACU
7. <i>Solidago gigantea</i> / Smooth goldenrod	10	Yes	FACW
8. <i>Carex scoparia</i> / Pointed broom sedge	5	No	FACW
9. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	5	No	OBL
10.			
11.			
12.			
	115	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30 Feet )			
1.			
2.			
3.			
4.			
	0	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species 45	x 1 = 45
FACW species 25	x 2 = 50
FAC species 35	x 3 = 105
FACU species 25	x 4 = 100
UPL species 70	x 5 = 350
Column Totals: 200 (A)	650 (B)

Prevalence Index = B/A = 3.25

**Hydrophytic Vegetation Indicators:**

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐

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

## SOIL

Sampling Point: 66-W011-3W

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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<sup>3</sup>:

☐ 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)

<sup>3</sup>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-W011-4U  
 Investigator(s): JB, 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: 42.938801 Long: -75.72805067 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa 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 <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Flat successional field	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W011-4U

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)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	0	= Total Cover		

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Phleum pratense</i> / Common timothy, Cultivated timothy	40	Yes	FACU	
2. <i>Trifolium repens</i> / White clover	15	Yes	FACU	
3. <i>Parthenocissus quinquefolia</i> / Virginia creeper	15	Yes	FACU	
4. <i>Trifolium pratense</i> / Red clover	10	No	FACU	
5. <i>Ranunculus acris</i> / Acrid buttercup	5	No	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	85	= Total Cover		

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0	= Total Cover		

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

**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	5	x 3 =	15	
FACU species	80	x 4 =	320	
UPL species	0	x 5 =	0	
Column Totals:	85	(A)	335	(B)

Prevalence Index = B/A = 3.94

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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

## SOIL

Sampling Point: 66-W011-4U

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

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

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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)

<sup>3</sup>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-W011-4W  
 Investigator(s): JB, 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: 42.93876533 Long: -75.72800917 Datum: WGS 1984  
 Soil Map Unit Name: Chippewa silt loam 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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>66-W011-4W PEM</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Successional field with bulrush and hydric soil</u>		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: 66-W011-4W

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)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Scirpus atrovirens</i> / Green bulrush	20	Yes	OBL
2. <i>Panicum</i> / Panicgrass	15	Yes	NI
3. <i>Trifolium repens</i> / White clover	10	No	FACU
4. <i>Carex vulpinoidea</i> / Fox sedge, Brown fox sedge	10	No	OBL
5. <i>Daucus carota</i> / Carrot, Carrot, Queen anne's lace	5	No	UPL
6. <i>Juncus dudleyi</i> / Dudley's rush, Dudley's rush	5	No	FACW
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	65	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	0	= Total Cover	

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

**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	30	x 1 =	30	
FACW species	5	x 2 =	10	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	20	x 5 =	100	
Column Totals:	65	(A)	180	(B)

Prevalence Index = B/A = 2.77

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☒ 3 - Prevalence Index ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation<sup>1</sup> (Explain )

<sup>1</sup>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 ☐