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# Memorandum

| | |
|---|---|
| **To:** | Excelsior Energy Center, LLC |
| **From:** | TRC |
| **Subject:** | Wetland and Stream Delineation Notes – Excelsior Energy Center, LLC.<br>Excelsior Energy Center Project |
| **Date:** | June 2020 |

On June 1, 2020, TRC completed a supplemental delineation effort for the proposed Excelsior Energy Center Project, located in the Town of Byron, Genesee County, New York. (Attachment A – Figure 1). This supplemental field effort covered two tax parcels totaling approximately 36.5 acres (Survey Area) that was added after the original delineation effort was completed in 2019. The field team documented all wetlands and surface waters (including rivers, streams, ponds, lakes, etc.) regardless of jurisdictional status. This memorandum summarizes the results of the wetland and stream delineation conducted for the Survey Area.

# Table of Contents

## TABLES



## ATTACHMENTS

## 1.0 General Survey Area Conditions

The weather at the time of the survey was mild with temperatures generally between 65° and 70° Fahrenheit. The Survey Area did not experience precipitation during the site delineation and received less than 1 inch (0.86 in) the week prior to the delineation. Land use within the Survey Area consists primarily of successional old fields, with some undeveloped forested lots and forested perennial stream buffer zones.

## 2.0 Regulatory Authority

### *2.1 United States Army Corps of Engineers*

In accordance with Section 404 of the Clean Water Act (CWA), the USACE asserts jurisdiction over Waters of the United States (WOTUS). WOTUS are defined as wetlands, streams, and other aquatic resources under the regulatory authority of Title 33 Code of Federal Regulations (CFR) Part 328 and the United States Environmental Protection Agency (EPA) per Title 40 CFR Part 230.3(s). Wetlands are defined as "*those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*" (EPA, 2001).

On August 28, 2015, the EPA released the Clean Water Rule (33 CFR Part 328) intending to clarify the scope of the Clean Water Act (CWA), WOTUS, and definitions of significant nexus. However, on October 9, 2015, implementation of the Clean Water Rule was stayed by the Sixth Circuit Court of Appeals pending further action of the court. On August 16, 2018, the U.S. District Court for the District of South Carolina enjoined the delay of the Clean Water Rule. Therefore, the Clean Water Rule became in effect in 22 states, including New York.

On October 22, 2019, the 2015 CWR was repealed, pending a required 60-day public notification period. This repeal was step one of a two-step rule-making process intended to (re)define the scope of waters of the United States that are regulated under the Clean Water Act. The repeal of the CWR became effective on December 23, 2019. On that date, the definition of WOTUS reverted to the historical context of the pre-2015 timeframe, (AKA the "Rapanos Approach"). The Rapanos Approach was intended as a temporary replacement. An intended permanent replacement, referred to as the Navigable Waters Protection Rule, is considered Step Two in the two-step repeal and replace process. The Navigable Waters Protection Rule was published in the April 21, 2020 Federal Register, and will become effective on June 22, 2020.

Until June 22, 2020, the Step One Rule (Rapanos Approach) remains in effect. Jurisdictional waters are defined as outlined above in the bulleted historical context. On and after June 22, 2020, the Step Two Rule (Navigable Waters Protection Rule) takes effect:

Navigable Waters Protection Rule:

The Navigable Waters Protection Rule outlines categories of waters considered jurisdictional, as well as those considered non-jurisdictional. The four categories of waters that are considered Waters of the United States, and thus jurisdictional to the USACE, include the following:

1. Territorial seas and traditional navigable waters (TNWs)

• Under the final rule, the territorial seas and traditional navigable waters include large rivers and lakes—such as the Mississippi River, the Great Lakes, Chesapeake Bay, and the Erie Canal—and tidally-influenced waterbodies used in interstate or foreign commerce.

2. Tributaries of such waters;

• Tributaries include perennial and intermittent rivers and streams that contribute surface flow to traditional navigable waters in a typical year.

• These naturally occurring surface water channels must flow more often than just after a single precipitation event—that is, tributaries must be perennial or intermittent.

• Tributaries can connect to a traditional navigable water or territorial sea in a typical year either directly or through other "waters of the United States," through channelized non-jurisdictional surface waters, through artificial features (including culverts and spillways), or through natural features (including debris piles and boulder fields).

• Ditches are to be considered tributaries only where they satisfy the flow conditions of the perennial and intermittent tributary definition and either were constructed in or relocate a tributary or were constructed in an adjacent wetland and contribute perennial or intermittent flow to a traditional navigable water in a typical year.

3. Lakes, ponds, and impoundments of jurisdictional waters

• Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional where they contribute surface water flow to a traditional navigable water or territorial sea in a typical year either directly or through other "waters of the United States," through channelized non-jurisdictional surface waters, through artificial features (including culverts and spillways), or through natural features (including debris piles and boulder fields).

• Lakes, ponds, and impoundments of jurisdictional waters are also jurisdictional where they are flooded by a "water of the United States" in a typical year.

4. Adjacent wetlands

• Wetlands that physically touch other jurisdictional waters are "adjacent wetlands."

• Wetlands separated from a "water of the United States" by only a natural berm, bank or dune are also "adjacent."

• Wetlands inundated by flooding from a "water of the United States" in a typical year are "adjacent."

• Wetlands that are physically separated from a jurisdictional water by an artificial dike, barrier, or similar artificial structure are "adjacent" so long as that structure allows for a direct hydrologic surface connection between the wetlands and the jurisdictional water in a typical year, such as through a culvert, flood or tide gate, pump, or similar artificial feature.

• An adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetland, as long as the structure allows for a direct hydrologic surface connection through or over that structure in a typical year.

Exclusions:

Twelve exclusions from the WOTUS definition, or non-jurisdictional waters, include: groundwater; ephemeral streams; stormwater runoff and stormwater control features; ditches that are not jurisdictional; prior converted cropland; artificial lakes and ponds; and artificially irrigated areas, including agricultural areas that would revert to uplands were the irrigation to cease.

### *2.2 New York State Department of Environmental Conservation*

Article 15 of the ECL (Protection of Waters) provides the NYSDEC with regulatory jurisdiction over any activity that disturbs the bed or banks of protected streams. Small lakes and ponds with a surface area of 10 acres or less, located within the course of a protected stream, are considered to be part of a stream and are subject to regulation under the stream protection category of Article 15. A protected stream is defined in the ECL as any stream, or particular portion of a stream, that has been assigned by the NYSDEC any of the following classifications or standards: AA, A, B, C(T), or C(TS) (6 NYCRR Part 701). State water quality classifications of unprotected watercourses include Class C and Class D waterbodies.

For an in-depth analysis of NYSDEC watercourse classifications and the Freshwater Wetlands Act [Article 24 and Title 23 of Article 71 of the Environmental Conservation Law (ECL)], refer to the Wetland and Stream Delineation Report for the Excelsior Energy Center Project.

## 3.0 Wetland and Stream Delineation Methodology

Prior to initiating field investigations, TRC conducted a desktop review of publicly available data to determine the potential presence of federal and state mapped wetlands and streams within the Survey Area. TRC wetland scientists subsequently performed field investigations to identify aquatic features within the Survey Area. Delineations for wetlands and streams were performed in accordance with criteria set forth in the 1987 Manual (Environmental Laboratory, 1987) and the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE, 2012) (Supplement). Data was collected from a sample plot in each delineated wetland. Depending on the size of the delineated area and any change in cover type, multiple sample plots of the delineated wetland may have been taken. Delineation data was recorded on USACE Wetland Determination Forms (Attachment C). The boundaries of wetlands were located with a GPS unit with reported sub-meter accuracy.

Hydrology, hydrophytic vegetation, and hydric soils make up the criteria set forth in the 1987 Manual (Environmental Laboratory, 1987), and are the key components to assess when delineating a wetland. These three components are thoroughly analyzed via the USACE Wetland Determination Forms. For a more in-depth analysis of each component, refer to the Wetland and Stream Delineation Report for the Excelsior Energy Center Project.

**4.0 Survey Area Soil Characteristics**

Two of the soil map units within the Survey Area contain percentages (33% or more) of mapping units with hydric soil inclusions suggestive of the presence of a wetland feature on-site (Figure 2 of Attachment A). Hydric Soil Rating indicates the percentage of map units that meet the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor non-hydric components in the higher positions on the landform, and map units that are made up dominantly of non-hydric soils may have small areas of minor hydric components in the lower positions on the landform. As such, each map unit is rated based on its respective components and the percentage of each component within the map unit. Although a soil series is given a general hydric soil rating on the online databases, this is for reference only and does not supersede site specific conditions in the field documenting hydric soil presence.

All soil map units identified within the Survey Area by the NRCS soil survey are outlined in Table 1. Refer to Figure 2 of Attachment A for graphically depicted soil map units of the Survey Area.

**Table 1. Mapped Soils within the Survey Area**

| Map Unit Symbol | Map Unit Name | Slope (%) | Drainage Class | Hydric Rating (%) | Acres in Survey Area | Percent of Survey Area (%) |
|---|---|---|---|---|---|---|
| Ad | Alden mucky silt loam | 0-3 | Very poorly drained | 100 | 1.0 | 2.8 |
| ApA | Appleton silt loam | 0-3 | Somewhat poorly drained | 4 | 7.5 | 20.4 |
| CaA | Canandaigua silt loam | 0-2 | Poorly drained | 95 | 0.8 | 2.3 |
| FpA | Fredon gravelly loam | 0-3 | Somewhat poorly drained | 10 | 7.7 | 21.2 |
| OnB | Ontario loam | 3-8 | Well drained | 0 | 0.0 | 0.1 |

**Table 1. Mapped Soils within the Survey Area**

| Map Unit Symbol | Map Unit Name | Slope (%) | Drainage Class | Hydric Rating (%) | Acres in Survey Area | Percent of Survey Area (%) |
|---|---|---|---|---|---|---|
| OvA | Ovid silt loam | 0-3 | Somewhat poorly drained | 5 | 0.2 | 0.5 |
| OvB | Ovid silt loam | 3-8 | Somewhat poorly drained | 5 | 8.2 | 22.4 |
| ShC3 | Schoharie silty clay loam | 6-12 | Moderately well drained | 0 | 0.9 | 2.4 |
| Wk | Wakeville silt loam | 0-3 | Somewhat poorly drained | 10 | 10.2 | 27.9 |

## 5.0 Federal and State Mapped Wetlands and Streams

The USFWS is the principal agency tasked with providing information to the public on the status and trends of wetlands on a national scale. The USFWS NWI is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of nationwide wetlands (where mapped). NWI wetlands do not exclusively carry any federal jurisdiction with their mapped boundaries. These wetlands are utilized as a reference guide by TRC field biologists to conduct a more informed site survey in the delineation of wetlands and streams potentially subject to federal jurisdiction under the CWA within in the Survey Area.

Review of the NWI mapping during the preliminary desktop analysis indicated that there are two federally mapped wetland features within the Survey Area and two federally mapped riverine features within the Survey Area (Figure 3 of Attachment A). The two wetland features are classified as Freshwater Forested/Shrub Wetland (PFO1A and PFO1C). The two riverine features are identified by R2UBH and R4SBCx. During the Survey Area delineation, TRC biologists identified one of the NWI wetlands (PFO1A) but found that the wetland boundary extended beyond the NWI mapped wetland. The other wetland that was mapped on the NWI mapper (PFO1C), was not identified by TRC biologists. As for the riverine features that were mapped on the NWI mapper, TRC biologists stream delineations overlapped the NWI feature.

Review of NYSDEC mapping through access to the online NYSDEC ERM indicates that there are zero NYSDEC-mapped freshwater wetlands and their adjacent 100-foot protective upland buffers mapped within the Survey Area. The closest NYSDEC freshwater wetland to the Survey Area is BY-13 and it is located 0.6 miles northwest of the Survey Area. These features are regulated under Article 24 of the ECL (Figure 3 of Attachment A). The NYSDEC classification system of freshwater wetlands provides class rankings (I-IV) for wetlands according to their specific ability to provide multiple predetermined functions and values (Class I having the highest rank, descending through to Class IV).

Based on available NYSDEC stream classification mapping, there are three mapped streams within the Survey Area. State-protected streams are protected per Article 15 of the ECL (See Section 2.2). Table 2 below provides a detailed summary of all NYSDEC classified (protected and unprotected) streams within the Survey Area.

**Table 2. NYSDEC Mapped Streams within the Survey Area**

| Stream Name and NYSDEC Regulatory ID Number | USGS Sub-basin HUC 8 and Name | NYSDEC Classification and Standard | Cumulative Linear Feet within Survey Area |
|---|---|---|---|
| Black Creek 821-20 | 04130003 Lower Genesee | C | 493 |
| Bigelow Creek 821-52 | 04130003 Lower Genesee | C | 1,186 |
| Black Creek, Middle, and minor tributaries 821-51 | 04130003 Lower Genesee | C | 361 |

## 6.0 RESULTS

### *6.1 General Overview*

The Survey Area contains primarily agriculture land cover. Dominant vegetation at the Survey Area included Reed canary grass (*Phalaris arundinacea*), annual bluegrass (*Poa annua*), Eastern cottonwood (*Populus deltoides*), white clover (*Trifolium repens*), Black willow (*Salix nigra*), Eastern skunk cabbage (*Symplocarpus foetidus*), and riverbank grape (*Vitis riparia*). Weather conditions during the delineation were mild with temperatures between 65° and 70° Fahrenheit, with no precipitation and sunny, clear skies. The week prior to the delineation there was less than 1 inch of precipitation and according to the United Stated Drought Monitor, the Survey Area was not experiencing drought conditions.

On June 1, 2020, TRC identified and delineated two wetlands, one identified as W-IMP-1 was classified as a combination of palustrine forested (PFO) and palustrine emergent (PEM), and another identified as W-IMP-2 was classified as PEM. TRC also identified and delineated three streams, two, which were identified as S-IMP-1 and S-IMP-2, classified as perennial streams and one was identified as S-IMP-3 and classified as an intermittent stream within the Survey Area (See Figure 4 of Attachment A). Thirty-one percent (11.31 acres) of the approximately 36.5-acre Survey Area is classified as wetland. Table 3 and Table 4 below detail the wetlands and streams delineated within the Survey Area. Representative photographs were taken of each delineated wetland community and stream within the Survey Area and are included in Attachment B. Descriptions of each wetland and stream are provided below. Completed wetland determination data forms and TRC stream data forms are provided in Attachment C.

### *6.2 Delineated Wetlands*

Wetland W-IBP-1 is a 10.56-acre wetland consisting of 6.62-acre PFO and 3.94-acre PEM located in the central part of the Survey Area. It extends offsite on the north and northeast border of the Survey Area. Wetland W-IMP-1 is mapped as a NWI palustrine forested, temporary flooded broad-leaved deciduous wetland (PFO1A), and palustrine forested, seasonally flooded broad-leaved deciduous wetland (PFO1C). However, the boundaries delineated were larger than the NWI mapping indicates. Within the delineated PFO area, indicators of wetland hydrology include water-stained leaves (B9), saturation (A3), water marks (B1), sediment deposits (B2), oxidized rhizospheres on living roots (C3), drift deposits (B3), presence of reduced iron (C4), and sparsely vegetated concave surface (B8). Dominant vegetation includes black willow, eastern skunk cabbage, riverbank grape, and spotted touch-me-not (*Impatiens capensis*). The hydric soil indicator was redox dark surface (F6), with a silty clay loam texture. Within the PEM portion of the wetland, indicators of wetland hydrology include oxidized rhizospheres on living roots (C3). The dominate vegetation includes Reed canary grass (*Phalaris arundinacea*). The hydric soil indicator observed was a depleted matrix (F3), with a silty clay texture. Under the Navigable Waters Protection Rule (NWPR), Wetland W-IBP-1 is likely jurisdictional by the USACE as the wetland has a surface water connection to WOTUS.

Wetland W-IBP-2 is a 0.75-acre PEM wetland located in the western portion of the Survey Area and extends beyond the Survey Area boundaries. Indicators of wetland hydrology include saturation (A3), and oxidized rhizospheres on living roots (C3). Dominant vegetation includes Eastern cottonwood, Riverbank grape, Silky dogwood (*Cornus amomum*), and Common reed (*Phragmites australis*). The hydric soil indicator observed was a redox dark surface (F6), with a silty clay loam texture. Under the NWPR approach, Wetland W-2 is likely jurisdictional by the USACE as the wetland has a surface water connection to WOTUS.

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**Table 3. Delineated Wetlands in the Survey Area**

| Wetland Field Desig-nation | Cover Type Classification[1] and Acreage | | | | Total Wetland Acreage within Survey Area | NWI Cover Type[2] | NYSDEC Wetland ID | NYSDEC Wetland Class | Potential Jurisdiction Under NWPR | Associated Buffer | Latitude of Centroid | Longitude of Centroid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PEM | PSS | PFO | PUB | | | | | | | | |
| W-IBP-1 | 3.94 | - | 6.62 | - | 10.56 | PFO1A/ PFO1C | N/A | N/A | USACE | None | 43.0686 | -78.0674 |
| W-IBP-2 | 0.75 | - | - | - | 0.75 | N/A | N/A | N/A | USACE | None | 43.0691 | -78.0725 |
| Total Wetland Acreage Delineated: | | | | | 11.31 | | | | | | | |

### *6.3 Delineated Streams*

Stream S-IBP-1 is an approximately 20-foot-wide, 12 to 24-inches-deep, perennial stream with 1.5 to 2.5-foot high banks. Approximately 493 linear feet were delineated within the Survey Area. The streambed consists of cobble/gravel substrate. The stream originates from offsite in the eastern central portion of the Survey Area and flows north offsite. Wetland W-IBP-1 is located adjacent to stream towards the northeast corner and towards the northwest of the stream that intersects with the northern part of the Survey Area. The stream is a known tributary to a named WOTUS, Genesee River, and corresponds to a mapped NWI riverine lower perennial unconsolidated feature (R2UBH) and a Class C unprotected NYSDEC mapped stream feature, Black Creek. Stream S-IBP-1 is USACE jurisdictional under the NWPR approach as a perennial stream that drains off-site and connects to WOTUS.

Stream S-IBP-2 an approximately 20 feet wide, 12 to 24-inches-deep, perennial stream with 1.5-foot high banks. Approximately 1,186 linear feet were delineated within the Survey Area. The streambed consists of cobble/gravel substrate. The stream originates from offsite at the southcentral portion of the Survey Area and flows north offsite. Wetland W-IBP-1 is located adjacent to the east bank of the stream and follows the length of the stream until it intersects with the northern part of the Survey Area. There are small pockets of wetland W-IBP-1 that are located adjacent to the west bank. The stream is a known tributary to a named WOTUS, Genesee River, and corresponds to a mapped NWI riverine lower perennial unconsolidated feature (R2UBH) and a Class C unprotected NYSDEC mapped stream feature, Bigelow Creek. Stream S-IBP-2 is USACE jurisdictional under the NWPR approach as a perennial stream that drains off-site and connects to WOTUS.

Stream S-IBP-3 an approximately 5 feet wide, 6 to 12-inches-deep, intermittent stream with 1.5 to 2.5-foot high banks. Approximately 361 linear feet were delineated within the Survey Area. The streambed consists of silt/clay substrate. The stream originates from a culvert offsite on the western boundary of the Survey Area and flows north offsite. Wetland W-IBP-2 is located adjacent to the east side of the stream and follows the length of the stream for approximately 160-feet. The stream is a known tributary to a named WOTUS, Genesee River, and corresponds to a mapped NWI excavated, seasonally flooded, intermittent streambed riverine feature (R4SBCx) and a Class C unprotected NYSDEC mapped stream feature. Stream S-IBP-3 is USACE jurisdictional under the NWPR approach as a perennial stream that drains off-site and connects to WOTUS.

**Table 4. Delineated Streams on the Survey Area**

| Stream Field Designation | Flow Regime Classification | Linear Feet within Survey Area | NYSDEC Stream Name and Regulation ID Number | NYSDEC Classification and Standard | Potential Jurisdiction Under NWPR | Associated Buffer | Latitude of Centroid | Longitude of Centroid |
|---|---|---|---|---|---|---|---|---|
| S-IBP-1 | Perennial | 493 | Black Creek 821-20 | Class C | USACE | None | 43.0691 | -78.0658 |
| S-IBP-2 | Perennial | 1,186 | Bigelow Creek 821-52 | Class C | USACE | None | 43.0690 | -78.0686 |
| S-IBP-3 | Intermittent | 361 | Black Creek and Middle minor tributaries 821-51 | Class C | USACE | None | 43.0695 | -78.0727 |
| Total Stream Length Delineated: | | 2,040 | | | | | | |

## 7.0 Conclusion

Upon the wetland and stream delineation conducted by TRC on June 1, 2020, it was confirmed that there are two wetlands and three streams in the Survey Area. Wetland W-IBP-1 consisted of 6.62-acres of PFO wetland cover type and 3.94-acres of PEM wetland cover type. Wetland W-IBP-2 consisted of 0.75-acres of PEM wetland cover type. Of the 36.5-acres, 11.31-acres were determined to be wetland. Streams S-IBP-1 and S-IBP-2 were defined with a flow regime classification of perennial and stream S-IBP-3 was defined as intermittent. All wetlands are likely USACE jurisdictional under the Navigable Waters Protection Rule. Because there are no NYSDEC mapped wetlands or their associated buffers mapped within the vicinity of the Survey Area, and all wetlands are smaller than 12.4 acres in size, wetlands W-IBP-1, W-IBP-2, and W-IBP-3 likely do not fall under NYSDEC jurisdiction. Streams S-IBP-1, S-IBP-2, and S-IBP-3 are likely NYSDEC and USACE jurisdictional as they are all mapped NYSDEC priority streams as well as known tributaries to WOTUS. Final determination of the jurisdictional status of the wetlands and streams identified on the Survey Area must be made by both the USACE and the NYSDEC upon completion of detailed reviews.

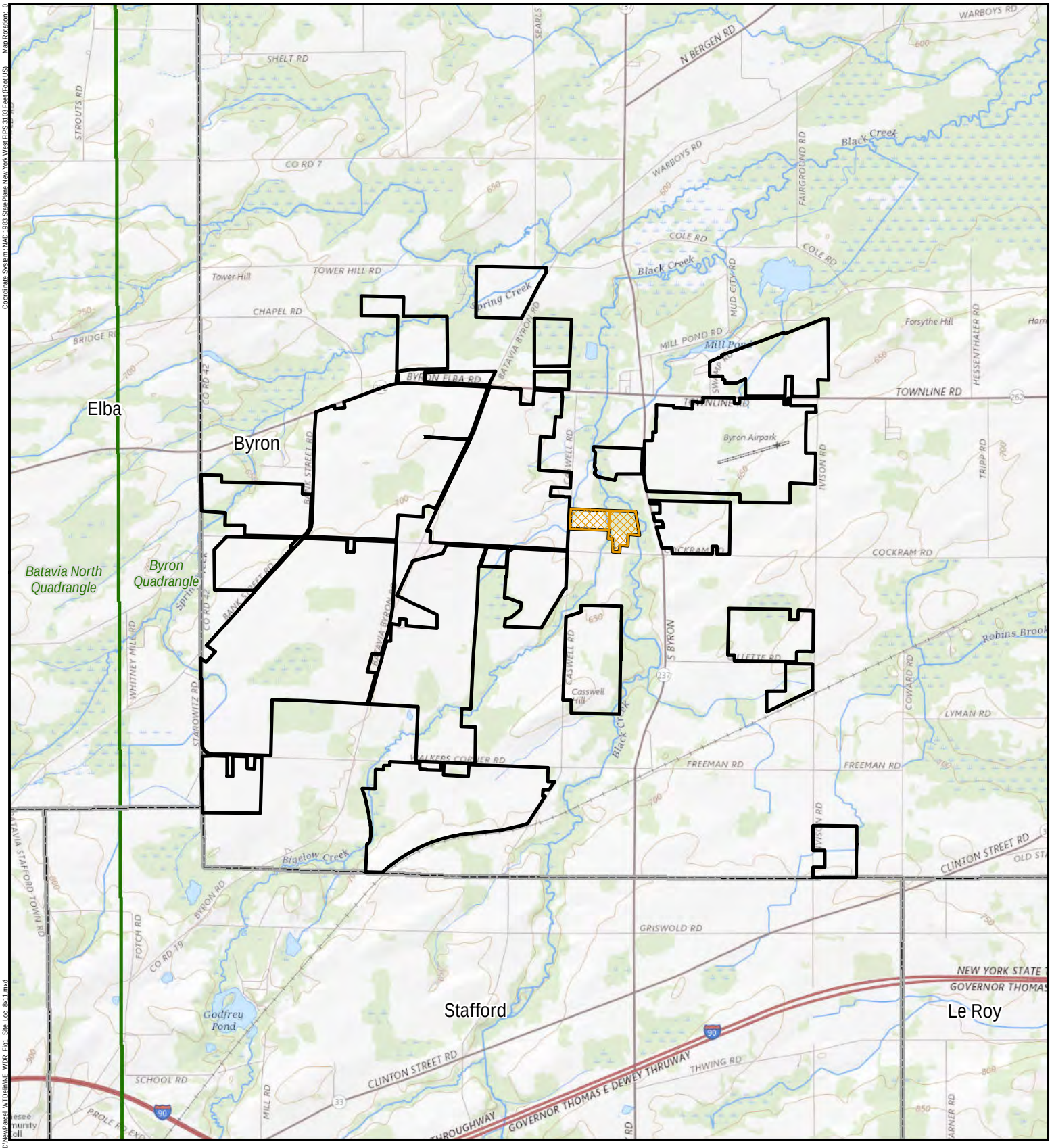
## 8.0 References

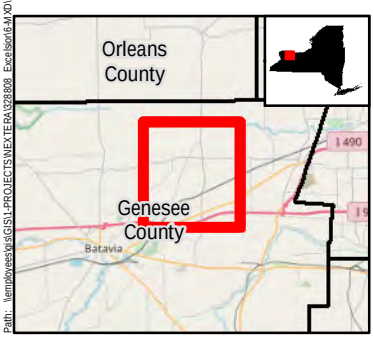
Environmental Laboratory. (1987). *Corps of Engineers Wetland Delineation Manual*. Technical Report Y-87-1. U.S. Army Corps of Engineers: Waterways Experiment Station; Vicksburg, MS.

United States Army Corps of Engineers (USACE). (2012). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0). U.S. Army Engineer Research and Development Center, Vicksburg, MS, 162 pp.

# ATTACHMENT A

*Figures*




**LEGEND**

- NEWLY SURVEYED PARCEL
- PROJECT AREA
- USGS 24K BOUNDARY
- CITY/TOWN BOUNDARY

N

1. BASEMAP IMAGERY FROM ESRI/ USGS NATIONAL TOPO BASEMAP, 2020.

1 " = 4,000 '

0 2,000 4,000 Feet

PROJECT:

EXCELSIOR ENERGY CENTER, LLC
EXCELSIOR SOLAR PROJECT
BYRON, GENESEE COUNTY, NY

TITLE:

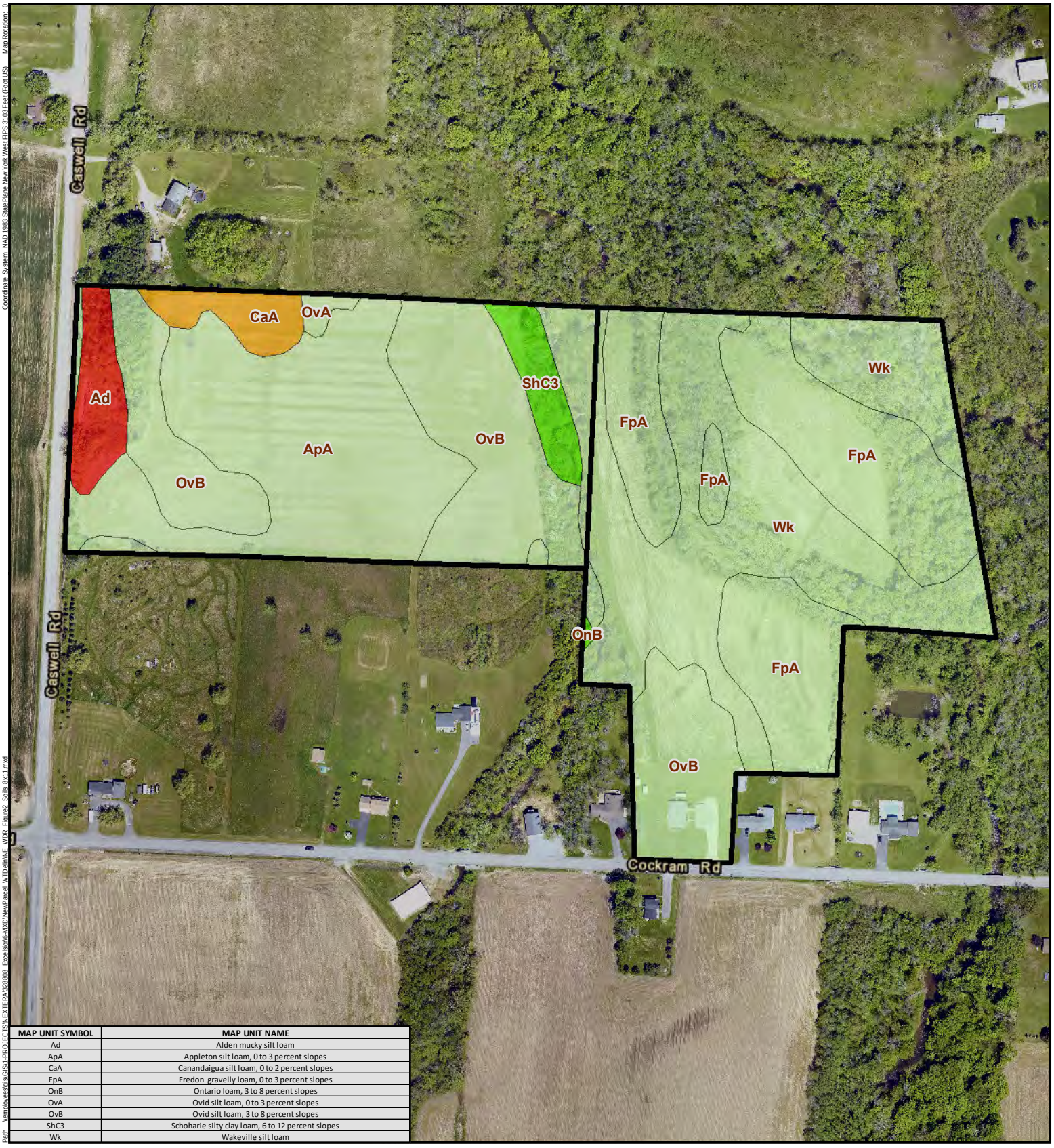
**SITE LOCATION MAP**

| | | | |
|---|---|---|---|
| DRAWN BY: | A. KAILAS | PROJ NO.: | 328808 |
| CHECKED BY: | K. MCGOWAN | | |
| APPROVED BY: | K. MCCORMICK | | |
| DATE: | AUGUST 2020 | | |

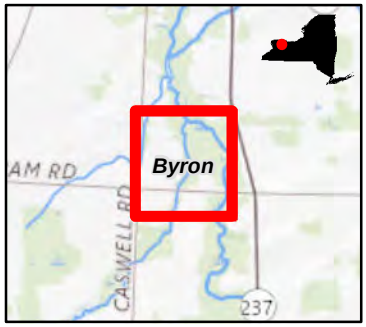
**FIGURE 1**

TRC
1090 UNION ROAD, SUITE 280
WEST SENECA, NY 14224

NEXTera ENERGY RESOURCES




| MAP UNIT SYMBOL | MAP UNIT NAME |
|---|---|
| Ad | Alden mucky silt loam |
| ApA | Appleton silt loam, 0 to 3 percent slopes |
| CaA | Canandaigua silt loam, 0 to 2 percent slopes |
| FpA | Fredon gravelly loam, 0 to 3 percent slopes |
| OnB | Ontario loam, 3 to 8 percent slopes |
| OvA | Ovid silt loam, 0 to 3 percent slopes |
| OvB | Ovid silt loam, 3 to 8 percent slopes |
| ShC3 | Schoharie silty clay loam, 6 to 12 percent slopes |
| Wk | Wakeville silt loam |




## LEGEND

- HYDRIC RATING (100%)
- HYDRIC RATING (66 TO 99%)
- HYDRIC RATING (33 TO 65%)
- HYDRIC RATING (1 TO 32%)
- HYDRIC RATING (0%)
- NOT RATED OR NOT AVAILABLE
- SITE LOCATION

N

1. BASEMAP IMAGERY FROM APEM, 2019.
2. SOILS DATA ACQUIRED FROM THE NATURAL RESOURCES CONSERVATION SERVICE, USING THE UNITED STATES DEPARTMENT OF AGRICULTURE WEB SOIL SURVEY.

1:3,600
1 " = 300 '
0 150 300 Feet

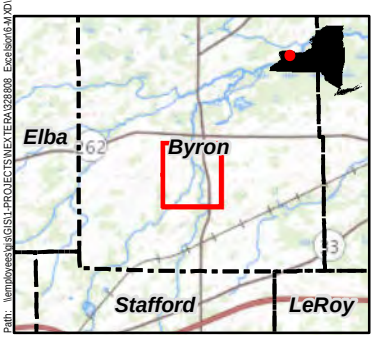
PROJECT:
EXCELSIOR ENERGY CENTER, LLC
EXCELSIOR SOLAR PROJECT
BYRON, GENESEE COUNTY, NY

TITLE:
# SOILS MAP

| | | | |
|---|---|---|---|
| DRAWN BY: | A. KAILAS | PROJECT NO.: | 328808 |
| CHECKED BY: | K. MCGOWAN | | |
| APPROVED BY: | K. MCCORMICK | | FIGURE 2 |
| DATE: | AUGUST 2020 | | |

TRC
1090 UNION ROAD, SUITE 280
WEST SENECA, NY 14224

NEXTera ENERGY RESOURCES


## LEGEND

- WATERBODIES (NHD)
- WATERBODIES (NYSDEC)
- WETLANDS (NYSDEC)
- WETLANDS (NWI)
- 100 YEAR FLOODPLAIN (FEMA)
- SITE LOCATION

1. BASEMAP IMAGERY FROM APEM, 2019.
2. DATA ACQUIRED FROM THE NYSDEC, NWI, FEMA, AND NYGIS.

N

0 400 800 Feet

1 " = 800 '

PROJECT:
EXCELSIOR ENERGY CENTER, LLC
EXCELSIOR SOLAR PROJECT
BYRON, GENESEE COUNTY, NY

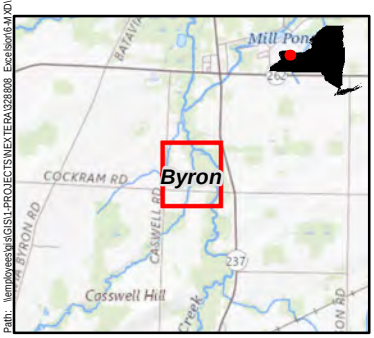
TITLE:
# FEDERAL & STATE WATER RESOURCES

| | | | |
|---|---|---|---|
| DRAWN BY: | A. KAILAS | PROJECT NO.: | 328808 |
| CHECKED BY: | K. MCGOWAN | | |
| APPROVED BY: | K. MCCORMICK | | FIGURE 3 |
| DATE: | AUGUST 2020 | | |

TRC
1090 UNION ROAD, SUITE 280
WEST SENECA, NY 14224

NEXTera ENERGY RESOURCES

Path: \\employeedir\GIS\1-PROJECTS\NEXTERA\328808_Excelsior\6-MXD\NewParcel_WTDelin\ME_WDR_Figure3_Wet_8x11.mxd
Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet (Excel US) Map Rotation: 0


CULVERT
USACE PLOT
DELINEATED STREAM LINE
DELINEATED WETLAND BOUNDARY LINE
DELINEATED SURFACE WATER
DELINEATED WETLAND
SITE LOCATION

1. BASEMAP IMAGERY FROM APEM, 2019.
2. RESOURCE DELINEATION COMPLETED IN THE FIELD BY TRC ON 06/01/2020.

N

0 150 300 Feet
1 " = 300 '

PROJECT:
EXCELSIOR ENERGY CENTER, LLC
EXCELSIOR SOLAR PROJECT
BYRON, GENESEE COUNTY, NY

TITLE:
# DELINEATED WETLANDS & STREAMS

| | | | |
|---|---|---|---|
| DRAWN BY: | A. KAILAS | PROJECT NO.: | 328808 |
| CHECKED BY: | I. PALLANT | | |
| APPROVED BY: | K. MCGOWAN | | **FIGURE 4** |
| DATE: | AUGUST 2020 | | |

TRC
1090 UNION ROAD, SUITE 280
WEST SENECA, NY 14224

NEXTera ENERGY RESOURCES

# ATTACHMENT B

*Photographic Log*

**Photo 1.** View north of stream S-IBP-1's floodplain in a portion of PFO wetland W-IBP-1 in the northeast corner of the Survey Area. 6/1/2020

**Photo 2.** View northeast of perennial stream S-IBP-1 it in the northeast section on the Survey Area. 6/1/2020

**Photo 3.** View northwest of perennial stream feature S-IBP-2 adjacent to a portion of PFO wetland W-IBP-1 in the north central section on the Survey Area. 6/1/2020

**Photo 4.** View south of the PEM portion of wetland W-IBP-1 located near the center of the Survey Area. 6/1/2020

**Photo 5.** View North of perennial stream S-IBP-2 in the central southwestern corner on the Survey Area. 6/1/2020

**Photo 6.** Eastern view of an open field upland area in the east of the Survey Area. 6/1/2020

**Photo 7.** View South of the upland field in the west of the Survey Area. 6/1/2020

**Photo 8.** View northeast of intermittent stream S-IBP-3 adjacent to PEM wetland W-IBP-2 in the west of the Survey Area. 6/1/2020

**Photo 9.** View south of the non-jurisdictional drianage located in wetland W-IBP-2 adjacent toCaswell Road. 6/1/2020

**Photo 10.** View North of S-IBP-3 adjacent to Caswell Road on the western side of the Survey Area. 6/1/2020

# ATTACHMENT C

*Data Forms*

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

**Project/Site:** Excelsior **City/County:** Byron, Genesee County **Sampling Date:** 2020-June-01
**Applicant/Owner:** NextEra **State:** New York **Sampling Point:** W-IBP-02; UPL-1
**Investigator(s):** Isaac Pallant, Casey Pearce **Section, Township, Range:**
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** Flat **Slope (%):** 0-1
**Subregion (LRR or MLRA):** LRR R **Lat:** 43.0691009 **Long:** -78.0720731 **Datum:** WGS84
**Soil Map Unit Name:** Appleton silt loam, 0 to 3 percent slopes **NWI classification:** None
**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If 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 ✓ | | |
| Hydric Soil Present? | Yes ____ No ✓ | **Is the Sampled Area within a Wetland?** | **Yes ____ No ✓** |
| Wetland Hydrology Present? | Yes ____ No ✓ | **If yes, optional Wetland Site ID:** | |

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

TRC covertype is UPL. Area is upland, not all three wetland parameters are present. Succesional Old Field, closer to fallow field, appears to be periodically managed.

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is 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 ✓ | Depth (inches): | |
| Water Table Present? | Yes ____ No ✓ | Depth (inches): | **Wetland Hydrology Present?** Yes ____ No ✓ |
| Saturation Present? (includes capillary fringe) | Yes ____ No ✓ | Depth (inches): | |

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

**Remarks:**

No positive indication of wetland hydrology was observed.

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-02; UPL-1

| Tree Stratum (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: 15 ft)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Herb Stratum (Plot size: 5 ft)** | | | |
| 1. *Poa pratensis* | 75 | Yes | FACU |
| 2. *Trifolium repens* | 50 | Yes | FACU |
| 3. *Plantago major* | 35 | No | FACU |
| 4. *Taraxacum officinale* | 20 | No | FACU |
| 5. *Phleum pratense* | 15 | No | FACU |
| 6. *Galium aparine* | 10 | No | FACU |
| 7. *Poa annua* | 10 | No | FACU |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 215 | = Total Cover | |
| **Woody Vine Stratum (Plot size: 30 ft)** | | | |
| 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 | (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 | 215 | x 4 = | 860 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals | 215 | (A) | 860 (B) |

Prevalence Index = B/A = 4

**Hydrophytic Vegetation Indicators:**

_____ 1- Rapid Test for Hydrophytic Vegetation

_____ 2 - Dominance Test is > 50%

_____ 3 - Prevalence Index is ≤ 3.0[1]

_____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

**Definitions of Vegetation Strata:**

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

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

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

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes _____ No ✓

**Remarks: (Include photo numbers here or on a separate sheet.)**

Fallow field, Periodically managed, Succesional old field

SOIL

Sampling Point: W-IBP-02; UPL-1

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

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 - 17 | 10YR 4/4 | 100 | | | | | Rocky Clay Loam | Compacted |

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

**Hydric Soil Indicators:**

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

**Hydric Soil Present?** Yes ____ No ✓

**Remarks:**

Refusal due to coarse fragments, Refusal at 17 inches, compaction assumed due to previous agricultural activities.

Soil Photos

Photo of Sample Plot

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

**Project/Site:** Excelsior **City/County:** Byron, Genesee County **Sampling Date:** 2020-June-01
**Applicant/Owner:** NextEra **State:** New York **Sampling Point:** W-IBP-02; PEM-1
**Investigator(s):** Isaac Pallant, Casey Pearce **Section, Township, Range:**
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** Flat **Slope (%):** 0-1
**Subregion (LRR or MLRA):** LRR R **Lat:** 43.0692218 **Long:** -78.0722438 **Datum:** WGS84
**Soil Map Unit Name:** Ovid silt loam, 3 to 8 percent slopes **NWI classification:** None
**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes _✓_ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No _✓_
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If 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 ____ | | |
| Hydric Soil Present? | Yes _✓_ No ____ | **Is the Sampled Area within a Wetland?** | **Yes _✓_ No ____** |
| Wetland Hydrology Present? | Yes _✓_ No ____ | **If yes, optional Wetland Site ID:** | W-IBP-02 |

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

TRC covertype is PEM. Area is wetland, all three wetland parameters are present. Ditches/drain tiles observed, Incorporates NJD roadside ditch and wetland swale.

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is 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 _✓_ | Depth (inches): | |
| Water Table Present? | Yes ____ No _✓_ | Depth (inches): | |
| Saturation Present? (includes capillary fringe) | Yes _✓_ No ____ | Depth (inches): | 18 |

**Wetland Hydrology Present?** Yes _✓_ No ____

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

**Remarks:**

Aerial photography depicts a darker signature (i.e. potential depression or relic scar) at this location, which suggests the potential for this area to be a wetland.

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-02; PEM-1

| Tree Stratum (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. *Populus deltoides* | 25 | Yes | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 25 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: 15 ft)** | | | |
| 1. *Cornus amomum* | 25 | Yes | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 25 | = Total Cover | |
| **Herb Stratum (Plot size: 5 ft)** | | | |
| 1. *Phragmites australis* | 80 | Yes | FACW |
| 2. *Impatiens capensis* | 15 | No | FACW |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 95 | = Total Cover | |
| **Woody Vine Stratum (Plot size: 30 ft)** | | | |
| 1. *Vitis riparia* | 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: | 4 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply By: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 120 | x 2 = | 240 |
| FAC species | 35 | x 3 = | 105 |
| FACU species | 0 | x 4 = | 0 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals | 155 | (A) | 345 (B) |
| Prevalence Index = B/A = | 2.2 | | |

**Hydrophytic Vegetation Indicators:**

____ 1- Rapid Test for Hydrophytic Vegetation

_✓_ 2 - Dominance Test is >50%

_✓_ 3 - Prevalence Index is ≤ 3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

**Definitions of Vegetation Strata:**

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

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

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

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes _✓_ No ____

**Remarks: (Include photo numbers here or on a separate sheet.)**

Large Phragmites patch, and wetland swale/ NJD on maintained road shoulder,

SOIL

Sampling Point: W-IBP-02; PEM-1

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

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 - 20 | 10YR 3/2 | 95 | 10YR 4/6 | 5 | C | M/PL | Mucky Silty Clay Loam | |

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

**Hydric Soil Indicators:**

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

**Hydric Soil Present?** Yes ✓ No ____

**Remarks:**

A positive indication of hydric soil was observed.

Soil Photos

Photo of Sample Plot

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

**Project/Site:** Excelsior **City/County:** Byron, Genesee County **Sampling Date:** 2020-June-01
**Applicant/Owner:** NextEra **State:** New York **Sampling Point:** W-IBP-01; UPL-1
**Investigator(s):** Isaac Pallant, Casey Pearce **Section, Township, Range:**
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** Flat **Slope (%):** 0-1
**Subregion (LRR or MLRA):** LRR R **Lat:** 43.0692347 **Long:** -78.0664124 **Datum:** WGS84
**Soil Map Unit Name:** Fredon gravelly loam, 0 to 3 percent slopes **NWI classification:** None
**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If 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 ✓ | | |
| Hydric Soil Present? | Yes ____ No ✓ | **Is the Sampled Area within a Wetland?** | **Yes ____ No ✓** |
| Wetland Hydrology Present? | Yes ____ No ✓ | **If yes, optional Wetland Site ID:** | |

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

TRC covertype is UPL. Area is upland, not all three wetland parameters are present. Successional old field

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is 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 ✓ | Depth (inches): | |
| Water Table Present? | Yes ____ No ✓ | Depth (inches): | **Wetland Hydrology Present?** Yes ____ No ✓ |
| Saturation Present? (includes capillary fringe) | Yes ____ No ✓ | Depth (inches): | |

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

**Remarks:**

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-01; UPL-1

| Tree Stratum (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: 15 ft)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Herb Stratum (Plot size: 5 ft)** | | | |
| 1. *Poa annua* | 85 | Yes | FACU |
| 2. *Asclepias syriaca* | 65 | Yes | UPL |
| 3. *Phalaris arundinacea* | 45 | Yes | FACW |
| 4. *Solidago canadensis* | 20 | No | FACU |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 215 | = Total Cover | |
| **Woody Vine Stratum (Plot size: 30 ft)** | | | |
| 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 | 45 | x 2 = | 90 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 105 | x 4 = | 420 |
| UPL species | 65 | x 5 = | 325 |
| Column Totals | 215 | (A) | 835 (B) |
| Prevalence Index = B/A = | 3.9 | | |

**Hydrophytic Vegetation Indicators:**

_____ 1- Rapid Test for Hydrophytic Vegetation

_____ 2 - Dominance Test is > 50%

_____ 3 - Prevalence Index is ≤ 3.0[1]

_____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

**Definitions of Vegetation Strata:**

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

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

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

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes _____ No ✓

**Remarks: (Include photo numbers here or on a separate sheet.)**

Successional old field

SOIL

Sampling Point: W-IBP-01; UPL-1

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

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 10 - 16 | 10YR 4/2 | 100 | | | | | Silty Clay Loam | |
| 16 - 20 | 7.5YR 5/4 | 100 | | | | | Sandy Clay Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

**Hydric Soil Indicators:**

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

**Hydric Soil Present?** Yes ____ No ✓

**Remarks:**

Soil Photos

Photo of Sample Plot

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

**Project/Site:** Excelsior **City/County:** Byron, Genesee County **Sampling Date:** 2020-June-01
**Applicant/Owner:** NextEra **State:** New York **Sampling Point:** W-IBP-01; PFO-1
**Investigator(s):** Isaac Pallant, Casey Pearce **Section, Township, Range:**
**Landform (hillslope, terrace, etc.):** Flood Plain **Local relief (concave, convex, none):** Flat **Slope (%):** 0-1
**Subregion (LRR or MLRA):** LRR R **Lat:** 43.0696578 **Long:** -78.0662023 **Datum:** WGS84
**Soil Map Unit Name:** Wakeville silt loam **NWI classification:** None
**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes _✓_ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes _✓_ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If 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 ____ | | |
| Hydric Soil Present? | Yes _✓_ No ____ | **Is the Sampled Area within a Wetland?** | **Yes _✓_ No ____** |
| Wetland Hydrology Present? | Yes _✓_ No ____ | **If yes, optional Wetland Site ID:** | W-IBP-01 |

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

TRC covertype is PFO. Area is wetland, all three wetland parameters are present. Active floodplain associated with Black Creek

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is 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 _✓_ | Depth (inches): | | |
| Water Table Present? | Yes _✓_ No ____ | Depth (inches): | 18 | **Wetland Hydrology Present?** Yes _✓_ No ____ |
| Saturation Present? (includes capillary fringe) | Yes _✓_ No ____ | Depth (inches): | 16 | |

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

**Remarks:**

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-01; PFO-1

| Tree Stratum (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. *Salix nigra* | 35 | Yes | OBL |
| 2. *Acer negundo* | 15 | Yes | FAC |
| 3. *Crataegus crus-galli* | 10 | No | FAC |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 60 | = Total Cover | |

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

| Herb Stratum (Plot size: 5 ft) | | | |
|---|---|---|---|
| 1. *Impatiens capensis* | 35 | Yes | FACW |
| 2. *Symplocarpus foetidus* | 15 | Yes | OBL |
| 3. *Phalaris arundinacea* | 10 | No | FACW |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 60 | = Total Cover | |

| Woody Vine Stratum (Plot size: 30 ft) | | | |
|---|---|---|---|
| 1. *Vitis riparia* | 5 | Yes | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 5 | = 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 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply By: | |
|---|---|---|---|
| OBL species | 50 | x 1 = | 50 |
| 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 | 125 (A) | | 230 (B) |

Prevalence Index = B/A = 1.8

**Hydrophytic Vegetation Indicators:**

____ 1- Rapid Test for Hydrophytic Vegetation

_✓_ 2 - Dominance Test is >50%

_✓_ 3 - Prevalence Index is ≤ 3.0[1]

_✓_ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

**Definitions of Vegetation Strata:**

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

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

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

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes _✓_ No ____

**Remarks: (Include photo numbers here or on a separate sheet.)**

SOIL

Sampling Point: W-IBP-01; PFO-1

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

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 - 20 | 10YR 3/1 | 95 | 10YR 3/6 | 5 | C | M/PL | Mucky Silty Clay Loam | |

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

**Hydric Soil Indicators:**

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

**Hydric Soil Present?** Yes ✓ No ____

**Remarks:**

Hydrology Photos

Soil Photos

Photo of Sample Plot

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

**Project/Site:** Excelsior **City/County:** Byron, Genesee County **Sampling Date:** 2020-June-01
**Applicant/Owner:** NextEra **State:** New York **Sampling Point:** W-IBP-01; PEM-2
**Investigator(s):** Isaac Pallant, Casey Pearce **Section, Township, Range:**
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** Flat **Slope (%):** 0-1
**Subregion (LRR or MLRA):** LRR R **Lat:** 43.0678977 **Long:** -78.0673683 **Datum:** WGS84
**Soil Map Unit Name:** Wakeville silt loam **NWI classification:** None
**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If 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 ____ | | |
| Hydric Soil Present? | Yes ✓ No ____ | **Is the Sampled Area within a Wetland?** | **Yes ✓ No ____** |
| Wetland Hydrology Present? | Yes ✓ No ____ | **If yes, optional Wetland Site ID:** | W-IBP-01 |

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

TRC covertype is PEM. Area is wetland, all three wetland parameters are present.

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is 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 ✓ | Depth (inches): | |
| Water Table Present? | Yes ____ No ✓ | Depth (inches): | |
| Saturation Present? (includes capillary fringe) | Yes ✓ No ____ | Depth (inches): | 18 |

**Wetland Hydrology Present?** Yes ✓ No ____

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

**Remarks:**

Aerial photography depicts a darker signature (i.e. potential depression or relic scar) at this location, which suggests the potential for this area to be a wetland.

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-01; PEM-2

| Tree Stratum (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: 15 ft)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Herb Stratum (Plot size: 5 ft)** | | | |
| 1. *Phalaris arundinacea* | 85 | Yes | FACW |
| 2. *Calystegia sepium* | 25 | No | FAC |
| 3. *Poa pratensis* | 20 | No | FACU |
| 4. *Galium asprellum* | 15 | No | OBL |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 145 | = Total Cover | |
| **Woody Vine Stratum (Plot size: 30 ft)** | | | |
| 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 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply By: | |
|---|---|---|---|
| OBL species | 15 | x 1 = | 15 |
| FACW species | 85 | x 2 = | 170 |
| FAC species | 25 | x 3 = | 75 |
| FACU species | 20 | x 4 = | 80 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals | 145 | (A) | 340 (B) |
| Prevalence Index = B/A = | 2.3 | | |

**Hydrophytic Vegetation Indicators:**

- ✓ 1- Rapid Test for Hydrophytic Vegetation
- ✓ 2 - Dominance Test is >50%
- ✓ 3 - Prevalence Index is ≤ 3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

**Definitions of Vegetation Strata:**

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

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

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

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes ✓ No ____

**Remarks: (Include photo numbers here or on a separate sheet.)**

Succesional old field; appears to be periodically mowed by; adjacent to residential areas of the parcel.

SOIL

Sampling Point: W-IBP-01; PEM-2

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

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 - 20 | 7.5YR 4/2 | 90 | 10YR 4/4 | 10 | C | M/PL | Silty Clay | |

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

**Hydric Soil Indicators:**

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

**Hydric Soil Present?** Yes _✓_ No ____

**Remarks:**

A positive indication of hydric soil was observed.

Soil Photos

Photo of Sample Plot

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

**Project/Site:** Excelsior **City/County:** Byron, Genesee County **Sampling Date:** 2020-June-01
**Applicant/Owner:** NextEra **State:** New York **Sampling Point:** W-IBP-01; UPL-2
**Investigator(s):** Isaac Pallant, Casey Pearce **Section, Township, Range:**
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** Flat **Slope (%):** 0-1
**Subregion (LRR or MLRA):** LRR R **Lat:** 43.0677222 **Long:** -78.0672234 **Datum:** WGS84
**Soil Map Unit Name:** Fredon gravelly loam, 0 to 3 percent slopes **NWI classification:** None
**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If 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 ✓ | | |
| Hydric Soil Present? | Yes ____ No ✓ | **Is the Sampled Area within a Wetland?** | **Yes ____ No ✓** |
| Wetland Hydrology Present? | Yes ____ No ✓ | **If yes, optional Wetland Site ID:** | |

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

TRC covertype is UPL. Area is upland, not all three wetland parameters are present.

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is 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 ✓ | Depth (inches): | |
| Water Table Present? | Yes ____ No ✓ | Depth (inches): | **Wetland Hydrology Present?** Yes ____ No ✓ |
| Saturation Present? (includes capillary fringe) | Yes ____ No ✓ | Depth (inches): | |

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

**Remarks:**

No positive indication of wetland hydrology was observed.

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-01; UPL-2

| Tree Stratum (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: 15 ft)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| | 0 | = Total Cover | |
| **Herb Stratum (Plot size: 5 ft)** | | | |
| 1. *Dactylis glomerata* | 75 | Yes | FACU |
| 2. *Poa annua* | 50 | Yes | FACU |
| 3. *Plantago major* | 15 | No | FACU |
| 4. *Daucus carota* | 10 | No | UPL |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 150 | = Total Cover | |
| **Woody Vine Stratum (Plot size: 30 ft)** | | | |
| 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 | (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 | 140 | x 4 = | 560 |
| UPL species | 10 | x 5 = | 50 |
| Column Totals | 150 | (A) | 610 (B) |
| Prevalence Index = B/A = | 4.1 | | |

**Hydrophytic Vegetation Indicators:**

_____ 1- Rapid Test for Hydrophytic Vegetation

_____ 2 - Dominance Test is > 50%

_____ 3 - Prevalence Index is ≤ 3.0[1]

_____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

**Definitions of Vegetation Strata:**

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

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

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

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes _____ No ✓

**Remarks: (Include photo numbers here or on a separate sheet.)**

Succesional Old Field located; appears to be mowed periodically (bi-annually or longer intervals); Adjacent to residential portion of parcel.

SOIL

Sampling Point: W-IBP-01; UPL-2

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

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 - 12 | 7.5YR 4/2 | 100 | | | | | Silt Loam | |
| 12 - 20 | 10YR 4/6 | 100 | | | | | Fine Sandy Loam | |

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

**Hydric Soil Indicators:**

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

**Hydric Soil Present?** Yes ____ No ✓

**Remarks:**

No positive indication of hydric soils was observed.

Soil Photos

Photo of Sample Plot