Wetland Delineation Report

Copenhagen Wind Farm

Towns of Denmark, Rutland, and Champion

Lewis and Jefferson Counties, New York

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

At the request of Copenhagen Wind, LLC (the Project Sponsor), EDR investigated approximately 9,200 acres of leased land, or land that is currently under negotiation to lease, in the Town of Denmark, Lewis County and the Towns of Rutland and Champion, Jefferson County, New York (Figures 1 and 2). The land, hereafter referred to as the Project Area, is proposed for a 79.9 megawatt (MW) wind-powered generating facility, the Copenhagen Wind Farm (the Project). As currently conceived, the Project is anticipated to include 47 wind turbines, each with a nameplate capacity of 1.7 MW. All wind turbines and associated infrastructure (access roads, buried and overhead electrical interconnect, and collection station) will be located in the Town of Denmark, Lewis County.

To deliver the electricity generated by the wind farm to the existing power grid, an 8.8 mile, 115 kilovolt (kV) transmission line will be constructed. The transmission line will run west-northwest from the collection station, through the Towns of Champion and Rutland (Jefferson County), and interconnect with the Black River – Lighthouse Hill 115kV transmission line in the Town of Rutland, Jefferson County. See Figure 3 for a depiction of project components on United States Geological Survey (USGS) topographic mapping.

EDR was retained by the Project Sponsor to identify all wetlands and streams within or adjacent to the proposed footprint of Project components. Wetlands and streams were identified during the 2013 growing season within approximately 100 feet of each identified project component (i.e., the anticipated limit of disturbance and hereafter referred to as the "Study Area").

1.2 PURPOSE

The purpose of this study was to delineate and describe all on-site wetlands and streams that may fall under state or federal jurisdiction. Specific tasks performed for this study included 1) review of background resource data/mapping, 2) field delineation and flagging of all potential state and federal jurisdictional wetlands and streams, 3) subsequent Global Positioning System (GPS) survey of on-site delineated wetlands and streams, 4) quantification of the area of on-site jurisdictional wetlands and streams, and 5) a detailed description of potentially jurisdictional areas based on hydrology, vegetation, and soils data collected in the field.

This report describes the results of the on-site wetland and stream delineations conducted by EDR, including a description of the wetlands and other waters that were identified and their likely jurisdictional status. This document is intended to provide all of the information necessary to identify on-site jurisdictional areas and support a permit application that may, if necessary, be submitted to the United States Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC), or other impact evaluations conducted in support of the State Environmental Quality Review Act (SEQRA).

1.3 RESOURCES

Materials and literature supporting this investigation have been derived from a number of sources including USGS topographic mapping (Rutland Center, Copenhagen, Carthage, New Boston and West Lowville, NY 7.5 minute quadrangles), United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, NYSDEC freshwater wetlands mapping, United States Department of Agriculture (USDA), Natural Resources

Conservation Service (NRCS) Lewis County and Jefferson County Soil Surveys, the NRCS List of Hydric Soils of the State of New York, and recent aerial photography.

Vascular plant names follow nomenclature found in the New York Flora Atlas (Weldy and Werier, 2012), and wetland indicator status for vegetative species was determined by reference to the National Wetland Plant List (Lichvar and Kartesz, 2009). Jurisdictional areas were characterized according to the wetlands and deepwater habitats classification system used in NWI mapping (Cowardin, 1979).

1.4 QUALIFICATIONS

EDR ecologists Brian Schwabenbauer, Jim Pippin, Michael Martin and Connor Liddell performed on-site wetland delineations.

Mr. Schwabenbauer is a Senior Ecological Resource Specialist with over 12 years of experience in the environmental field. He received a Masters of Professional Studies degree in Environmental Policy from the State University of New York College of Environmental Science and Forestry, and a Bachelor of Science degree in Environmental Studies from Hobart College. His professional expertise includes environmental impact assessment, wetland delineation, wetland permitting, wetland mitigation design and monitoring, GPS survey and mapping, geographic information system data analysis, and environmental compliance monitoring during construction. He is a NYS Qualified Inspector for erosion and sediment control and an IWEER Certified Wetland Delineator.

Mr. Pippin is an Environmental Project Manager with over 15 years of experience in the environmental field. He received a Bachelor of Science degree in Natural Resources Management from the University of Maryland at College Park. Professional expertise includes wetland delineations, state and federal wetland permitting, water quality improvement, ecological surveys, stream and wetland mitigation design and monitoring, environmental construction monitoring, visual impact assessments, environmental impact analysis, and SEQRA compliance. Mr. Pippin has experience managing many of EDR's environmental projects such as wetland permitting and ecological surveys for municipalities to full regulatory review under SEQRA for large scale energy projects in New York State. Mr. Pippin is also a member of the American Wind Energy Association and the New York State Wetlands Forum.

Mr. Martin is an Environmental Analyst with 6 years of experience in the environmental field. He received his Bachelor's and Master of Natural Resources-Analysis and Assessment degrees from North Carolina State University. His professional experience includes ecological surveys, wildlife and endangered species management, wetland delineations, and geographic information system data analysis. Prior to relocating to New York, Mr. Martin served on the Board of Directors for the North Carolina Association of Environmental Professionals and the Research Triangle Chapter of the Society for Risk Analysis.

Mr. Liddell is an Environmental Analyst with 3 years of experience in the environmental field. He received a Bachelor's degree in Biological Sciences and a Graduate degree in Natural Resource Management from James Cook University in Townsville, Australia. His professional expertise includes conservation and environmental research, endangered species and wildlife management, habitat restoration, ecological surveys, invasive species management, wetland/coastal mitigation and monitoring, environmental impact assessment, wetland and stream delineations, GPS survey and mapping, and pollution abatement/elimination.

2.0 REGULATORY AUTHORITIES AND PERMITS

2.1 WATERS OF THE UNITED STATES

As defined by the USACE, Waters of the United States include all lakes, ponds, streams (intermittent and perennial), and wetlands. Jurisdictional 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). Such areas are indicated by the presence of three criteria: hydrophytic vegetation, hydric soils, and evidence of wetland hydrology during the growing season, and are regulated under Section 404 of the Clean Water Act (Environmental Laboratory, 1987).

However, as a result of the Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers Supreme Court case (No. 99-1178; January 9, 2001), it has been determined that the USACE does not have jurisdictional authority over waters that are "non-navigable, isolated, and intrastate" (EPA, 2001). The jurisdictional status of all on-site waters can only be determined following official documentation provided by the USACE, which typically includes an agency field visit.

More recently, the Supreme Court decided U.S. v. Rapanos, (547 U.S., June 19, 2006), in which it held in two consolidated cases (the other case was Carabell) that the USACE misinterpreted the Clean Water Act in determining its jurisdiction over wetland protection. On June 5, 2007, the Environmental Protection Agency (EPA) and the Department of Army (DOA) issued Clean Water Act jurisdiction guidance following the Supreme Court's decision in Rapanos and Carabell. A summary of this guidance is as follows:

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters.
- Wetlands adjacent to traditional navigable waters.
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).
- Wetlands that directly abut such tributaries.

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow).
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

Section 10 of the Rivers and Harbor Act (33 U.S.C. 401 et seq.) requires a permit from the USACE to construct any structure in or over any navigable water of the United States, as well as any proposed action that would alter or disturb (such as excavation/dredging or deposition of materials) these waters. If the proposed structure or activity affects the course, location, condition, or capacity of the navigable water, even if the proposed activity is outside the boundaries of the water body, a permit from the USACE is required.

2.2 NEW YORK STATE FRESHWATER WETLANDS AND PROTECTED STREAMS

The Freshwater Wetlands Act (Article 24 and Title 23 of Article 71 of the Environmental Conservation Law) gives the NYSDEC jurisdiction over state-protected wetlands and adjacent areas (100-foot upland buffer). The Freshwater Wetlands Act requires the NYSDEC to map all state-protected wetlands to allow landowners and other interested parties a means of determining where state jurisdictional wetlands exist. To implement the policy established by this Act, regulations were promulgated by the state under 6 NYCRR Parts 663 and 664. Part 664 of the regulations designates wetlands into four class ratings, with Class I being the highest or best quality wetland and Class IV being the lowest. In general, wetlands regulated by the state are those 12.4 acres in size or larger. Smaller wetlands can also be regulated if they are considered of unusual local importance. A 100-foot adjacent area around the delineated boundary of any state-regulated wetland is also under NYSDEC jurisdiction. An Article 24 permit is required from the NYSDEC for any disturbance to a state-protected wetland or an adjacent area, including removing vegetation.

Under Article 15 of the Environmental Conservation Law (Protection of Waters), the NYSDEC has regulatory jurisdiction over any activity that disturbs the bed or banks of protected streams. In addition, 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. Protected stream means 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, or C(t) or C(ts) (6 NYCRR Part 701). A classification of AA or A indicates that the best use of the stream is as a source of water supply for drinking, culinary or food processing purposes, primary and secondary contact recreation, and fishing. The best usages of Class B waters are primary and secondary contact recreation and fishing. The best usage of Class C waters is fishing. Streams designated (t) indicate that they support trout, while those designated (ts) support trout spawning. State water quality classifications of unprotected watercourses include Class C and Class D streams. Waters with a classification of D are suitable for fishing and non-contact recreation. An Article 15 permit is required from the NYSDEC for any disturbance to a stream classified C(t) or higher.

3.0 PHYSICAL CHARACTERISTICS AND RESOURCES

3.1 PHYSIOGRAPHY AND SOILS

The Project Area is located on the edge of the Tug Hill Plateau physiographic province, near its descent to the Black River Valley. This area is marked by a series of nearly level limestone terraces, formed from glacial erosion of the soft limestone bedrock (USDA, 1960). Topography of the generating portion of the Project Area is relatively flat with greater topographic relief occurring along the transmission line route in the form of small drumlins. Elevations along the transmission line range from approximately 835 feet above mean sea level (amsl) near Staplin Creek at the western terminus of the transmission line, to 1,500 feet amsl along Hayes Road, the eastern terminus of the transmission line. Elevations at turbine sites range from approximately 1,150 feet to approximately 1,450 feet amsl. No wind turbines are proposed in the valley portions of the Project Area (Figure 3).

Another prominent physiographic feature of the Project Area is the Deer River valley, which bisects the generating site in a northeast/southwest orientation, and flows north to its eventual confluence with the Black River. A small hydroelectric facility (dam) impounds the Deer River just north of the Village of Copenhagen. North of the dam (downstream) is High Falls, a dramatic waterfall that plunges more than 100 feet into the Deer River Valley below. Project collection lines between turbines 42 and 46 are proposed to cross the Deer River and County Route 55 in the valley, north of the Village of Copenhagen, the hydroelectric dam, and High Falls. At the point of the collection line crossing, the river banks are very steep, rising more than 200 feet above the valley floor before leveling back to the flat topography more characteristic of the area.

The Lewis and Jefferson County soil surveys have mapped general soil associations and soil types within the Project Area. The soil surveys indicate that 12 soil associations and 107 soil map units from 51 different soil series are present within the Project Area (Figure 4). Of these, Nellis is the most dominant soil series, covering over 3,100 acres or 34 percent of the Project Area. Other prominent soil series (each covering greater than 500 acres within the Project Area) include Amenia, Galway, Kendaia, and Poland. Table 1 lists soil associations found within the Project Area and their characteristics. Table 2 lists the dominant soil series within the Project Area and their characteristics.

Table 1. Soil Associations within the Project Area

Soil Association	Main Characteristics
Madrid-Galway-Nellis (Jefferson County)	• Very deep and moderately deep soils • Well drained and moderately well drained • Loamy texture • Found on uplands • Soils in association: Madrid (40%), Galway (30%), Nellis (20 %), and soils of a lesser extent (10%).
Farmington-Galway-Benson (Jefferson County)	• Shallow and moderately deep soils • Excessively drained to moderately well drained • Loamy texture • Found on plains • Soils in association: Farmington (50%), Galway (25%), Benson (15%), and soils of a minor extent (10%).

Soil Association	Main Characteristics
Nellis-Amenia (Lewis County)	• Deep soils on high-lime glacial till • Well drained and moderately well drained • Soils in association: Nellis (40-60%), Amenia (25-30%), Kendaia (10-15%), and Lyons (5-10%)
Poland-Mohawk-Manheim (Lewis County)	• Deep soils on high-lime glacial till • Well drained and moderately well drained • Soils in association: Poland (25-50%), Mohawk (25-50%), Manheim (15-25%), Ilion (10-25%), and Fonda (5-10%)
Poland-Turin-Ilion (Lewis County)	• Deep soils on high-lime glacial till • Well drained and moderately well drained • Soils in association: Poland (30-40%), Ilion (15-25%), Turin (25-40%), and Fonda (5-15%)
Nellis-Amenia, shallow (Lewis County)	• Shallow soils on high-lime glacial till • Dominantly moderately well drained • Soils in association: Nellis (50-75%), Amenia (20-35%), Kendaia (10-15%), and Lyons (0-5%)
Nellis-Kendaia (Lewis County)	• Shallow soils on high-lime glacial till • Well drained to poorly drained • Soils in association: Nellis (60-80%), Rockland (5-10%), and Kendaia (15-25%)
Turin-Ilion (Lewis County)	• Deep soils on high-lime glacial till • Somewhat poorly drained • Soils in association: Turin (40-60%), Poland (5-15%), Ilion (20-30%), and Fonda (5-15%)
Camroden-Pinckney-Marcy (Lewis County)	• Deep, acid soils on glacial till • Neutral or slightly acid fragipan • Well drained to moderately well drained • Soils in association: Camroden (40-60%), Pinckney (20-35%), Marcy (15-25%), and Alden (10-15%)
Herkimer-Houseville (Lewis County)	• Medium texture to moderately coarse textured soils on glacial outwash, alluvial fans, and recent alluvium • Well drained and moderately well drained • Soils in association: Herkimer (35-55%), Houseville (25-35%), Colonie (10-30%), Glenfield (10-15%), and Westland (0-5%)
Scantic-Buxton (Lewis County)	• Medium-textured to fine-textured soils on glacial lake sediments • Poorly drained to somewhat poorly drained • Soils in association: Scantie (40-60%), Suffield (10-20%), Buxton (25-40%), and Biddeford (0-10%)
Rockland limestone (Lewis County)	• Dominated by rock and very shallow soils. • Occurs on ledges and exposed rock, on the west side of Black River • 60-80% Rockland limestone with Nellis and Amenia soils in between ledges

(USDA, 1960; USDA, 1989; USDA, 2012

Table 2. Dominant Soil Series within the Project Area

Soil Series	Mapping Unit	Slope (%)	Hydric soil	Main Characteristics
Nellis Series (Lewis and Jefferson Counties)	NeB (Lewis County)	2-8	No	• Well drained, medium textured • Developed on firm, highly calcareous glacial till • Relief: Nearly level to moderately steep • Depth to bedrock: 15 inches to many feet
	NeC (Lewis County)	8-15	No	
	NcB (Lewis County)	2-8	No	
	NcC (Lewis County)	8-15	No	
	NdD (Lewis County)	15-25	No	
	NbB (Lewis County)	0-8	No	
	NbC (Lewis County)	8-15	No	
	NbD (Lewis County)	15-25	No	
	NaE (Lewis County)	25-35	No	
	NgD (Lewis County)	15-35	No	
	NfC (Lewis County)	3-15	No	
	NfD (Lewis county)	15-35	No	
	NiA (Jefferson County)	0-3	No	
	NiB (Jefferson County)	3-8	No	
	NiC (Jefferson County)	8-15	No	
	NiD (Jefferson County)	15-25	No	
	NmE (Jefferson County)	25-50	No	
Amenia Series (Lewis and Jefferson Counties)	AgA (Lewis County)	0-3	No	• Moderately well drained to somewhat poorly drained • Developed on firm, highly calcareous till • Relief: Nearly level to strongly sloping • Depth to bedrock: 12 to greater than 40 inches
	AgB (Lewis County)	3-8	No	
	AfA (Lewis County)	0-3	No	
	AfB (Lewis County)	3-8	No	

Soil Series	Mapping Unit	Slope (%)	Hydric soil	Main Characteristics
Amenia Series (Lewis and Jefferson Counties)	AeB (Lewis County)	2-8	No	• Moderately well drained to somewhat poorly drained • Developed on firm, highly calcareous till • Relief: Nearly level to strongly sloping • Depth to bedrock: 12 to greater than 40 inches
	AmA (Jefferson County)	0-3	No	
	AmB (Jefferson County)	3-8	No	
Galway Series (Jefferson County)	GiA	0-3	No	• Well drained and moderately well drained • Developed on glacial till • Relief: 0-15% slopes • Depth to bedrock: 20-40 inches
	GiB	3-8	No	
	GmC	0-15	No	
Kendaia Series (Lewis County)	KbA	0-3	Potential	• Poorly drained to somewhat poorly drained • Developed on highly calcareous glacial till • On depressions and swales along drainage ways • Relief: Nearly level to gently sloping • Depth to bedrock: 12 to greater than 48 inches
	KbB	3-8	Potential	
	KcA	0-3	Potential	
	KcB	3-8	Potential	
Poland Series (Lewis County)	PhB	3-8	No	• Well drained • Developed on alkaline to weakly calcareous glacial till • Relief: Undulating to moderately steep
	PhC	8-15	No	
	PhD	15-25	No	

(USDA, 1960; USDA, 1989; USDA, 2012)

3.2 HYDROLOGY

The Project Area is located in the Black River and Salmon River-Sandy Creek drainage basins (USGS Hydrologic Units 04150101 and 04140102, respectively) of the Lake Ontario watershed (NYSDEC, 2012). The majority of surface hydrology on the Project Area is generated by precipitation and surface water run-off from adjacent land. Total annual precipitation (from 1971 to 2000) averaged 50-60 inches in Copenhagen, NY (NRCS, 2013b). Mapped surface water resources within the Project Area are described below and are illustrated in Figure 5.

The majority of the generating site drains to the Black River, located north and east of the Project Area, approximately two miles away at its nearest point. Within this drainage basin, Deer River, Stony Creek, Mud Creek and their associated unnamed tributaries pass through the generating site. The Black River flows west to Black River Bay and, ultimately Lake Ontario. The transmission site drains to the southwest via Sandy Creek and named tributaries including Stebbins Creek, Jacobs Creek, Boynton Creek, and Staplin Creek. Sandy Creek flows off-site to the southwest and drains directly into Lake Ontario.

Within the Project Area, and in the location of the proposed overhead collection line crossing, the Deer River is located at the bottom of a large, deeply incised valley. Within the Project Area, this river is characterized as a

perennial stream, between 20 to 40 feet wide, with a moderate to fast flow of water, and a stream substrate of bedrock and cobbles/rocks/boulders.

Along the planned route of the transmission line, Sandy Creek also represents a relatively significant surface water feature. This creek is characterized as a perennial stream, between 10 to 40 feet wide, with a moderate to fast flow of water, and a stream substrate of bedrock and cobbles/rocks/boulders.

Other streams in the Project Area are primarily low-gradient drainage features that meander through wetlands, agricultural fields, hedgerows, and pastures. Most of these streams are less than 10 feet wide with variable substrates, and vegetative cover characteristics. Some Project Area streams have well-defined and abrupt banks, while the banks of others transition gradually into adjacent wetland vegetation. There are also a few small farm ponds/open water areas interspersed throughout the area. Generally, they are found in farm settings, adjacent to houses and barns, or within wetlands. Water depths in these ponds, although not verified, are anticipated to be 4 feet or more. They may be used as a source of water for livestock or for fishing and aesthetic purposes.

3.3 FEDERAL AND STATE MAPPED WETLANDS AND STREAMS

National Wetland Inventory (NWI) mapping covers the transmission site and the western two-thirds of the generating site; however, no data is available for the eastern third of the generating site (Carthage and West Lowville USGS 7.5-minute quadrangles). Within the portion of the Project Area where data is available, 169 wetlands have been mapped by the NWI (Figure 5), cumulatively totaling 568 acres (note that many wetlands are comprised of two or more individually mapped wetland communities and as such, there are far fewer than 169 individual wetlands located on-site). Field reconnaissance indicates that a number of additional federal jurisdictional wetlands occur in the unmapped portion of the Project Area. The NWI data indicate that freshwater broad-leaved deciduous forested wetlands are the dominant wetland community on-site, totaling approximately 346 acres. Other NWI-mapped wetland communities on-site include freshwater scrub-shrub broad-leaved deciduous wetlands (138 acres), freshwater emergent wetlands (59 acres), freshwater forested needle-leaved evergreen wetlands (14 acres), and freshwater ponds (11 acres).

Review of NYSDEC mapping indicates that a total of 16 freshwater wetlands occur within the Project Area that are regulated under Article 24 of the Environmental Conservation Law (Figure 5). These wetlands occur throughout the Project Area and many of them are associated with mapped streams. Table 3 provides a summary of State-regulated wetlands in the Project Area. As indicated below, of the 16 freshwater wetlands in the Project Area, 12 are mapped as Class III and four are mapped as Class II.

Table 3. State-Regulated Wetlands within the Project Area.

Wetland	Class[1]	Total Size (Acres)	Size Within Project Area (Acres)
C-10	III	18.3	5.0
C-12	III	31.2	13.8
C-13	III	15.9	4.9
C-14	III	14.9	7.1
C-15	III	44.6	16.4
C-19	III	19.2	19.2
C-8	II	76.6	18.1
C-9	III	16.8	12.9
CT-19	II	21.2	18.2
CT-20	III	28.5	16.9

Wetland	Class[1]	Total Size (Acres)	Size Within Project Area (Acres)
CT-21	III	35.7	7.8
CT-22	III	13.3	12.6
RU-14	III	21.8	19.5
RU-19	II	25.9	7.8
RU-25	III	50.7	23.8
RU-28	II	17.4	17.4

[1] NYS classification system provides four separate classes that rank wetlands according to their ability to provide functions and values (Class I having the highest rank, descending through Class IV).

One class A NYSDEC-protected stream, an unnamed tributary of Deer River, is located at the south end of the generating site within the Project Area. In addition, two class C(t) NYSDEC-protected streams occur within the Project Area; Boynton Creek, and an unnamed tributary to Boynton Creek which are located in the western portion of the Project Area along the transmission line route.

All other streams within the Project Area are classified by the NYSDEC as class C streams and are not subject to Protection of Waters regulations. However, all perennial and intermittent streams in the Project Area are protected by the USACE under Section 404 of the Clean Water Act. There are no streams regulated by Section 10 of the Rivers and Harbors Act of 1899 (navigable waters) within the Project Area. In addition, based on the definition set forth at 6 NYCRR 608.1(u) of the Environmental Conservation Law, and site-specific investigations, it is not anticipated that any waters identified within the Project Area would meet the New York State definition of "navigable".

The Deer River bisects the eastern and western portions of the generating site (between Turbines 42 and 46), and is proposed to be spanned with an overhead electrical collection line. The portion of the Deer River within the Project Area is classified as a "C" stream and therefore not NYSDEC protected.

4.0 WETLAND AND STREAM IDENTIFICATION

4.1 METHODOLOGY

A preliminary desktop analysis of the Study Area was conducted by EDR prior to performing on-site wetland delineation. The desktop analysis was performed using NYSDEC Freshwater Wetland Mapping, NWI Wetland Mapping, USGS Topographic Mapping, and with the use of aerial photography. From these mapped resources, EDR identified areas likely to contain wetland and stream resources within the Project Area, in order to assist with avoiding impacts to on-site wetlands for the preliminary siting of Project components.

The entire Study Area was investigated, and all the wetlands were delineated during the summer and fall growing season of 2013. The determination of wetland boundaries was made by EDR personnel according to the three-parameter methodology described in the USACE Wetland Delineation Manual (hereafter referred to as the 1987 Manual) (Environmental Laboratory, 1987). Determination of wetland boundaries was also guided by the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: North central and Northeastern Region (hereafter referred to as the Regional Supplement) (USACE, 2009). Attention was also given to the identification of potential hydrologic connections between wetland areas that could influence their jurisdictional status. Wetland boundaries were defined in the field with sequentially numbered pink surveyor's flagging (Figure 6).

Data were collected from one or more sample plots in each delineated wetland (depending on the size and diversity of ecological communities of the delineated area), and recorded on USACE Routine Wetland Determination forms

(Appendix B). Data collected for each of the wetlands delineated by EDR personnel included dominant vegetation, hydrology indicators, and soil characteristics.

The vegetative data collection process focused on dominant plant species in four categories: trees (>3" diameter at breast height), saplings/shrubs (<3.0" diameter at breast height and >3.2' tall), herbs (<3.2' tall), and woody vines. Dominance was measured by visually estimating those species having the largest relative basal area (trees), greatest height (saplings/shrubs), greatest number of stems (woody vines), and greatest percentage of aerial coverage (herbaceous) by species. Dominant species for each stratum in the plant community were identified for all delineated wetland on the site. The dominant species from each category are defined as those plants with the highest ranking which, when cumulatively totaled, exceeds 50 percent of the total dominance measure for that category, plus any additional plant species comprising 20 percent or more of the total dominance measure for the category. The species were rank ordered for each category by decreasing value of dominance.

Soils data at each sampling location were collected by EDR personnel using a tiling spade. Information concerning soil name, drainage classification, texture, matrix and redoximorphic feature color was obtained for each delineated wetland by reviewing the County Soil Surveys and through field sampling. Soil colors were determined using Munsell Soil Charts (Corporations K. I., 2000). This information was used to determine whether the soils displayed hydric characteristics. Hydric soils are those that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil layer. Hydric soils are poorly drained, and their presence is indicative of the likely occurrence of wetlands (Environmental Laboratory, 1987).

The Regional Supplement lists the following indicators as evidence of wetland hydrology (in order of decreasing reliability): (A1) surface water, (A2) high water table, (A3) saturation, (B1) water marks, (B2) sediment deposits, (B3) drift deposits, (B4) algal mat or crust, (B5) iron deposits, (B7) inundation visible on aerial imagery, (B8) sparsely vegetated concave surface, (B9) water-stained leaves, (B13) aquatic fauna, (B15) marl deposits, (C1) hydrogen sulfide odor, (C3) oxidized rhizospheres on living roots, (C4) presence of reduced iron, (C6) recent iron reduction in tilled soils, and (C7) thick muck surface. Hydrologic characteristics (inundation and soil saturation) were visually assessed to a depth of 12 inches. The hydrology indicators described above are considered "primary indicators," and any one of these indicators is sufficient evidence that wetland hydrology is present. In addition, "secondary indicators" used by EDR personnel included: (B6) surface soil cracks, (B10) drainage patterns, (B16) moss trim lines, (C2) dry-season water table, (C8) crayfish burrows, (C9) saturation visible on aerial imagery, (D1) saturation visible on aerial imagery, (D2) geomorphic position, (D3) shallow aquitard, (D4) microtopographic relief, and (D5) fac-neutral test. Any two of these also indicate the presence of wetland hydrology. Wetland hydrology, when combined with a dominant hydrophytic plant community and hydric soils, indicate the presence of a wetland.

Photographs were taken of all wetlands and streams delineated within the Study Area. Photographs representative of the delineated wetlands and streams are included in Appendix C.

4.2 RESULTS

EDR ecologists delineated a total of 89 wetlands and streams and approximated one additional wetland within 100 feet (or more) of proposed Project components. Some wetlands or streams were delineated because at one time they were close to Project components, but the components have since been moved. Information pertaining to individual wetlands and streams is summarized in Table 4 below. The one approximated wetland occurred as a result of late changes to the Project layout. Wetlands and streams were categorized as one or more of the following community types: emergent wetland (PEM), scrub-shrub wetland (PSS), forested wetland (PFO), open water (OW), riverine upper perennial (RUP), and riverine intermittent (RI). All wetlands and streams in the vicinity of Project components are depicted in Figure 6.

Table 4. Delineated Wetlands and Streams

Wetland/Stream ID[1]	Community Type	Area[2]	Federal Jurisdiction[3]	State Jurisdiction[3]
A	RI	0.20	Yes	No
B	PFO	0.78	Yes	No
C	PFO	0.79	Yes	No
D	PSS	0.25	Yes	No
E	RI	0.08	Yes	No
F	RI/PFO/PEM	6.73	Yes	Yes
G	PSS/PEM	9.29	Yes	Yes
H	PSS	1.14	Yes	No
I	PSS	6.68	Yes	No
J	PFO	0.21	No	No
K	PEM	0.25	No	No
L	PEM/RUP	0.29	Yes	No
M	PEM/RUP	0.20	Yes	No
N	PFO/RI	1.31	No	No
O	PFO	2.46	Yes	No
P	PEM	0.46	No	No
Q	PEM/PSS	2.87	Yes	No
R	PEM/PFO	0.34	Yes	No
S	PEM/OW	1.04	Yes	No
T	PEM/RI	0.03	Yes	No
U	PEM	2.54	Yes	No
V	PFO/PEM	0.33	Yes	No
W	PFO	0.45	No	No
X	PEM	0.19	No	No
Y	PEM	0.34	No	No
Z	PEM/PFO/PSS	22.68	Yes	No
AA	PFO	0.02	Undetermined	No
BB	PSS	1.70	Yes	No
CC	PSS/RUP	0.19	Yes	Yes
DD	PEM/PSS/PFO	7.45	No	No
EE	PFO	0.39	No	No
FF	PFO	0.11	Yes	No
GG	PFO	0.88	No	No
HH	PEM	0.05	Yes	No

Wetland/Stream ID[1]	Community Type	Area[2]	Federal Jurisdiction[3]	State Jurisdiction[3]
II	PEM/PSS/RUP	5.08	Yes	No
JJ	PSS/PFO	13.41	Yes	No
KK	PSS	0.09	No	No
LL	PEM	2.60	Yes	No
MM	PSS	28.72	Yes	Yes
NN	PFO/RI	0.16	Undetermined	Undetermined
OO	PEM	0.21	No	No
PP	PSS	1.26	Yes	No
QQ	PEM/RUP	1.40	Yes	No
RR	PSS	2.71	Yes	No
SS	PSS	0.11	No	No
TT	PEM	0.95	Yes	No
UU	PEM	0.16	Yes	No
VV	PEM	2.97	Yes	No
WW	PFO	3.19	Yes	No
XX	PFO	9.21	No	No
YY	PEM	0.40	No	No
ZZ	PFO	3.23	No	No
3A	PSS/PEM/RI	3.89	Yes	No
3B	PEM/PSS	2.89	Yes	No
3C	PEM/PSS	3.34	Yes	No
3D	PEM/PSS	0.75	Yes	No
3E	PEM/PSS	1.51	Yes	No
3F	PEM	0.46	Yes	No
3G	PFO/Seep/Deer River	1.29	Yes	No
3H	PSS/PEM/RUP	0.97	Yes	No
3I	PSS	1.20	No	No
3J	PFO	1.39	Undetermined	No
3K	PEM/PSS	3.05	Yes	No
3L	PEM	1.04	Yes	No
3M	PEM/OW	9.80	Yes	No
3N	PEM/PSS/PFO	8.42	Yes	No
3O	PSS/PEM	15.84	Yes	No
3P	PSS/PEM	0.78	No	No
3Q	PSS/PEM	0.74	Yes	No
3R	PSS/PEM	0.38	Yes	No

Wetland/Stream ID[1]	Community Type	Area[2]	Federal Jurisdiction[3]	State Jurisdiction[3]
3S	PSS	3.81	Yes	Yes
3T	PEM	0.66	Yes	Yes
3U	PFO	6.33	Yes	No
3V	PSS	13.79	Yes	Yes
3W	PEM	0.33	No	No
3X	PEM	0.34	No	No
3Y	PEM	0.12	No	No
3Z	PEM	2.82	Yes	No
4A	PSS/PEM	0.56	Yes	No
4B	PSS	3.17	Yes	No
4C	PSS/PEM	2.80	Yes	Yes
4D	PEM	0.97	Yes	No
4E	PFO	9.40	Undetermined	Yes
4F	PSS/PEM	6.05	Yes	No
4G	PEM	1.71	Yes	No
4H	PFO	1.82	Yes	Yes
4I	PEM	2.52	Yes	No
4J	PEM	1.00	Yes	No
4K	PEM/PFO	24.32	Yes	No
AW-1	PSS/PEM	0.06	Yes	No

[1] Delineated wetlands and streams were identified with a unique letter by EDR personnel during field investigations.
[2] Area is expressed in acres, and includes on-site portions of wetlands only.
[3] Based on field observations of hydrologic connections. Final jurisdiction will be determined by agency personnel.

The one approximated wetland (AW-1) was investigated in the field, but could not be formally delineated due to Project changes that resulted in this wetland being included in the Study Area after the on-set of winter weather. This wetland represents an irrigation ditch bisecting two agricultural fields which drains westward into a large wetland complex. The wetland complex incorporates delineated wetlands G, 3A, and 3B. As a result, AW-1 is presumed to share similar wetland characteristics to the aforementioned wetlands. In addition, subsequent layout changes over the winter have resulted in the desktop approximation of several other approximate wetland boundaries (AW-2, AW-3, AW-4, AW-5, and AW-6). Wetland AW-2 is adjacent to the access road to the meteorological tower southwest of turbine 55. It includes a stream channel and is likely hydrologically connected to delineated wetland I. Wetlands AW-3 and AW-4 are located in the vicinity of turbine 20; AW-4 corresponds to NYSDEC wetland CT-21. Wetlands AW-5 and AW-6 are located along the stretch of buried interconnect between turbines 15 and 18. These approximate wetland features are depicted on Sheet 1 of Figure 6. A formal delineation of the approximated wetlands will be conducted during the 2014 growing season.

4.2.1 Wetlands

Descriptions of each wetland community type delineated within the Study Area are presented below.

Emergent wetlands (PEM) – The majority of wetlands within the Study Area are characterized as emergent or partially emergent with 54 of the delineated wetlands displaying traits of this community type. Emergent wetlands occur where surface water collects in shallow basins and/or adjacent to open water. These wetlands are dominated by herbaceous vegetation, and generally characterized by soils that remain saturated or inundated throughout the year. Although the Cowardin classification was used to classify wetlands, some of the emergent wetlands in this category could be best described according to the Reschke definition as wet meadow (Reschke, 1990). Wet meadow wetlands are usually found in poorly drained, low-lying depressional areas. Wet meadow wetlands may resemble grasslands and are typically drier than other marshes, except during periods of seasonal high water. They generally lack standing water for most of the year, though snow melt, storm water runoff, and/or a high water table allows the soil to remain saturated for a significant portion of the growing season.

Emergent wetlands and wet meadows identified in the Study Area are dominated by plants such as cattail (*Typha latifolia*), sedges (*Carex spp*.), rushes (*Juncus spp*.), green bulrush (*Scirpus atrovirens*), reed canary grass (*Phalaris arundinacea*), late goldenrod (*Solidago gigantea*), wool grass (*Scirpus cyperinus*), Joe-pye weed (*Eutrochium maculatum*), white turtlehead (*Chelone glabra*), rice cutgrass (*Leersia oryzoides*), and boneset (*Eupatorium perfoliatum*). Evidence of wetland hydrology in the emergent wetlands identified within the Study Area included inundation, drainage patterns, saturated soils, microtopographic relief, and saturation visible on aerial imagery (See Photos 01 - 08, Appendix C).

Scrub-shrub wetlands (PSS) – 35 of the wetlands identified were found to be dominated or containing traits characteristic of scrub-shrub vegetation. Scrub-shrub wetlands within the Study Area are characterized by dense stands of shrub species less than 20 feet tall, including willows (*Salix spp*.), silky dogwood (*Cornus amomum*), red osier dogwood (*Cornus stolonifera*), gray dogwood (*Cornus racemosa*), speckled alder (*Alnus incana*), and common elderberry (*Sambucus nigra*). Herbaceous vegetation in these areas includes sensitive fern (*Onoclea sensibilis*), ostrich fern (*Matteuccia struthiopteris*), tearthumb (*Persicaria arifolia*), field horsetail (*Equisetum arvense*), and various sedges. Evidence of wetland hydrology in the scrub-shrub wetlands identified within the Study Area included water-stained leaves, saturated soils, microtopographic relief, and saturation visible on aerial imagery (See Photos 09 - 14, Appendix C).

Forested wetland (PFO) – Forested wetland communities are dominated by trees that are 20 feet or taller, but also include an understory of shrub and herbaceous species. Twenty six (26) of the wetlands within the Study Area were fully or partially forested and include a mix of hydrophytic trees such as green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), red maple (*Acer rubrum*), black willow (*Salix nigra*), and speckled alder. They also occasionally contain an understory of shrubs including saplings of the above mentioned species, or shrub species such as dogwoods or willows. Herbaceous species in forested wetland include sedges, sensitive fern, manna grasses (*Glyceria spp*.), spotted jewelweed (*Impatiens capensis*), pale jewelweed (*Impatiens pallida*), royal fern (*Osmunda regalis*), skunk cabbage (*Symplocarpus foetidus*), and sphagnum moss (*Sphagnum sp.*). Evidence of wetland hydrology in the forested wetlands identified within the Study Area included water-stained leaves, water marks, moss trim lines, drainage patterns, saturated soils, microtopographic relief, and saturation visible on aerial imagery (See Photo 15 - 19, Appendix C).

Open Water (OW) - A few small farm ponds and recreation ponds are found within the Study Area, generally in open field settings, scrub-shrub, and forested environments or adjacent to houses and barns. Typically, these ponds are either occurring naturally or excavated or diked, with well-defined banks. Surrounding the small ponds, emergent wetland vegetation tends to be limited or lacking in the open field settings while substantial within the scrub shrub or forested habitats. Although not verified, water depths are expected to be consistent with excavated ponds that are used as a source of water for livestock as well as for fishing and aesthetic purposes. Such ponds are typically a minimum of 4 feet deep (See Photos 20 - 24, Appendix C).

Streams – Streams within the Project Area are located within agricultural fields, forests, hedgerows, and old-field communities, and generally have a gentle gradient (0-5%). The majority of the streams are located along the

transmission line route. Most of the identified streams are intermittent, with a rocky substrate, and lack well defined and established floodplains typical of larger, perennial stream/river systems. The majority of streambeds did not have a substantial flow of water at the time of the field investigation, likely due to timing of the fieldwork which occurred primarily in the late summer and early fall of 2013. Water depths within the channels with stream flow averaged 2-10 inches (See Photos 25 to 33, Appendix C).

The functions provided by most of these wetlands and streams appear to include maintaining surface water flows, recharging groundwater supplies, storm water detention, flood abatement, water quality improvement, wildlife habitat, and nutrient cycling. The functions of many on-site wetlands are limited due to 1) the isolated location within or adjacent to agricultural fields, 2) lack of structural diversity, and 3) past or on-going physical disturbance (e.g., agriculture). However, some of the delineated wetlands are considered valuable to the overall ecology of the area due to their size (some wetlands identified within the Survey Area are portions of much larger systems), structural diversity, wildlife habitat, and hydrologic functions.

5.0 CONCLUSIONS

EDR delineated 89 wetlands and streams and approximated the location of one wetland within the Study Area, totaling approximately 291 acres. However, many of these wetlands continue past EDR's delineated boundary outside the Study Area, and their total size is thus larger than shown in Table 4. Wetlands within the Study Area were identified based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. The delineated areas included small ponds, perennial and intermittent stream and emergent, scrub shrub, and forested wetland cover types. The primary functions provided by these wetlands appear to include storm water detention, ground water recharge, water quality improvement, and wildlife habitat.

The majority of the delineated wetlands did not display characteristics that suggest they could support listed threatened or endangered species. However, some forested wetlands on-site have the potential to provide roosting habitat for northern long-eared bat (*Myotis septentrionalis)* and possibly indiana bat (*Myotis sodalis*). Indiana bat is a state and federally listed endangered species and the northern long-eared bat is proposed to be listed within the state and federally as endangered. Because the delineated wetlands are on private land, they offer little or no opportunities for public recreational use, education, or research. Most of the wetlands (65 out of 89) appear to have surface water connections to other waters of the United States, and therefore are likely to be considered jurisdictional by the USACE under Section 404 of the Clean Water Act. Twenty one of the wetlands appear to be isolated. The remaining four wetlands are left undetermined as a result of wetlands continuing outside of the Project boundary and on private property. Ten of the delineated wetlands are expected to fall under state jurisdiction pursuant to Article 24 and three NYSDEC-protected streams (one Class A and two Class C(T) streams) are expected to fall under Article 15 jurisdiction. However, final determination of jurisdictional status must be made by the USACE and NYSDEC.

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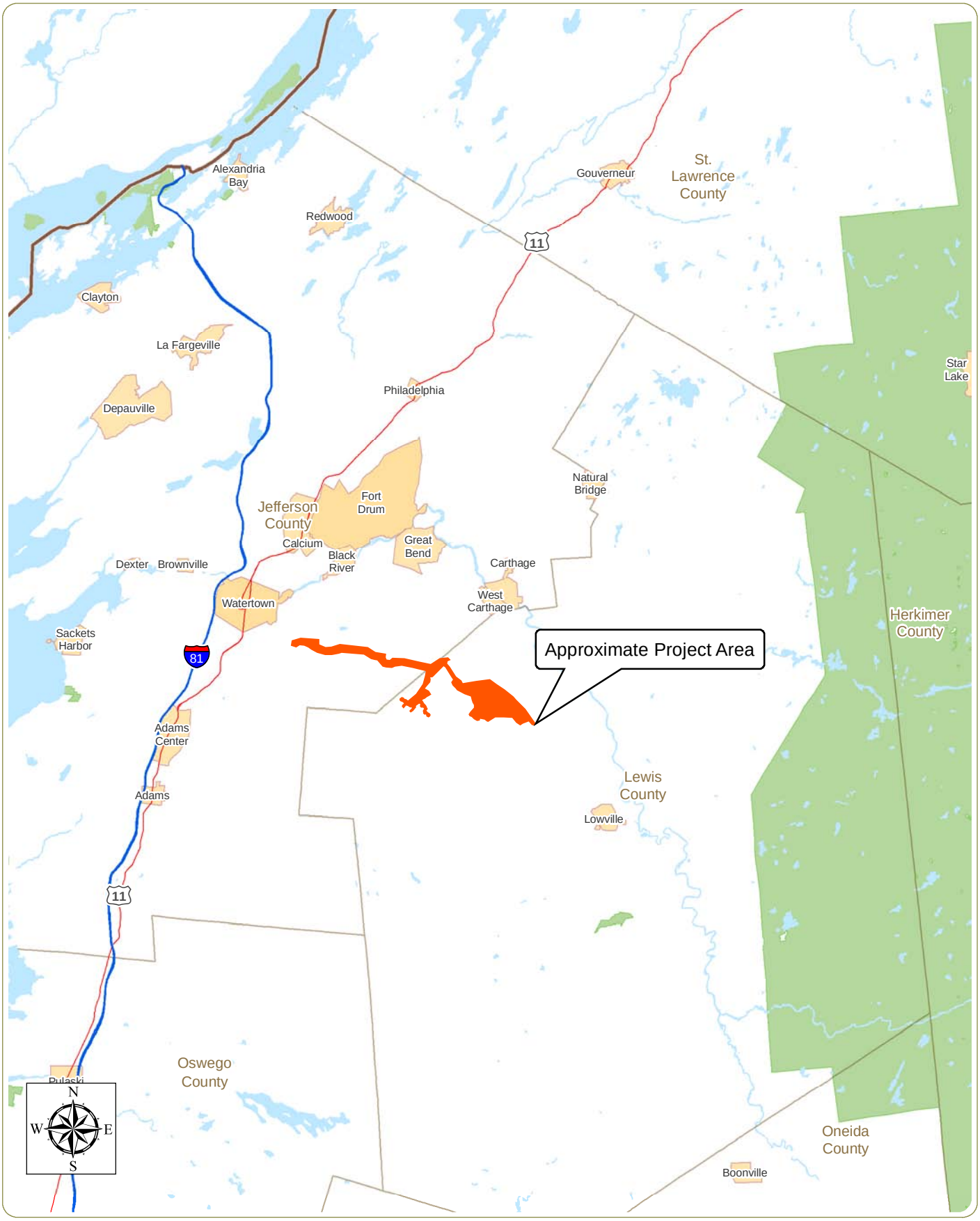
APPENDIX A

Figures



Copenhagen Wind Farm

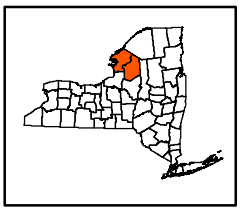
Town of Denmark, Lewis County, NY

Towns of Rutland and Champion, Jefferson County, NY

Figure 1: Regional Project Location

April 2014

Notes: Basemap: ESRI Streetmap North America, 2008.



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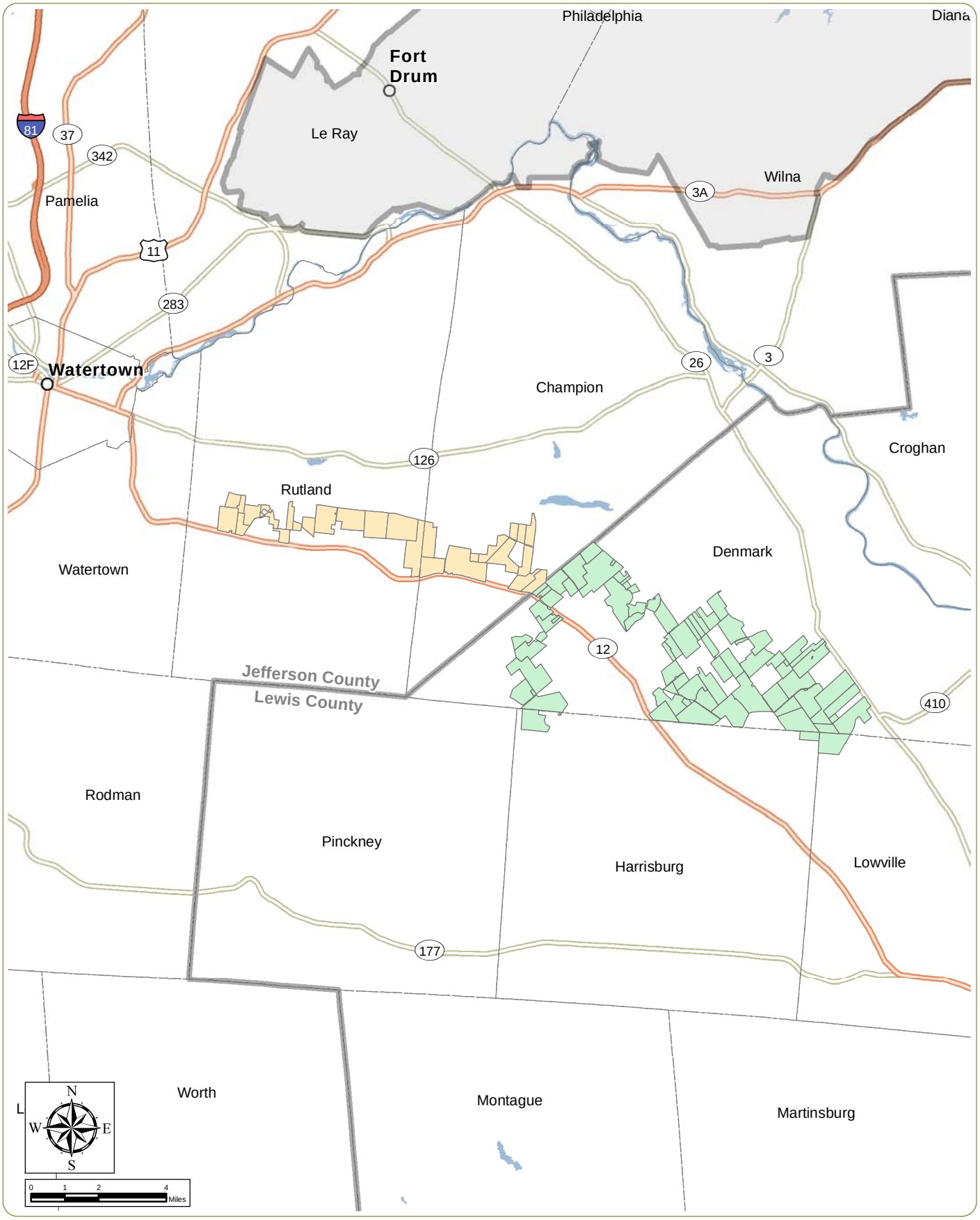

Copenhagen Wind Farm

Town of Denmark, Lewis County NY

Towns of Rutland, and Champion, Jefferson County NY

Figure 2: Project Area

April 2014

Notes: Basemap: ESRI StreetMap North America, 2012;
Military Base Boundary data from Bureau of Transportation Statistics

- Transmission Site (Parcels)
- Generation Site (Parcels)
- Town Boundary
- Fort Drum Approximate Boundary
- County Boundary

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Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland, and Champion, Jefferson County

Figure 3: Topographic Mapping Sheet 1 of 3

April 2014

- Wind Turbine
- Meteorological Tower
- Overhead Interconnect
- Electrical Interconnect
- Access Road
- O&M Building
- Collection Station
- Transmission Line
- Project Area

Notes:
Basemap: ESRI Online USA Topo Maps

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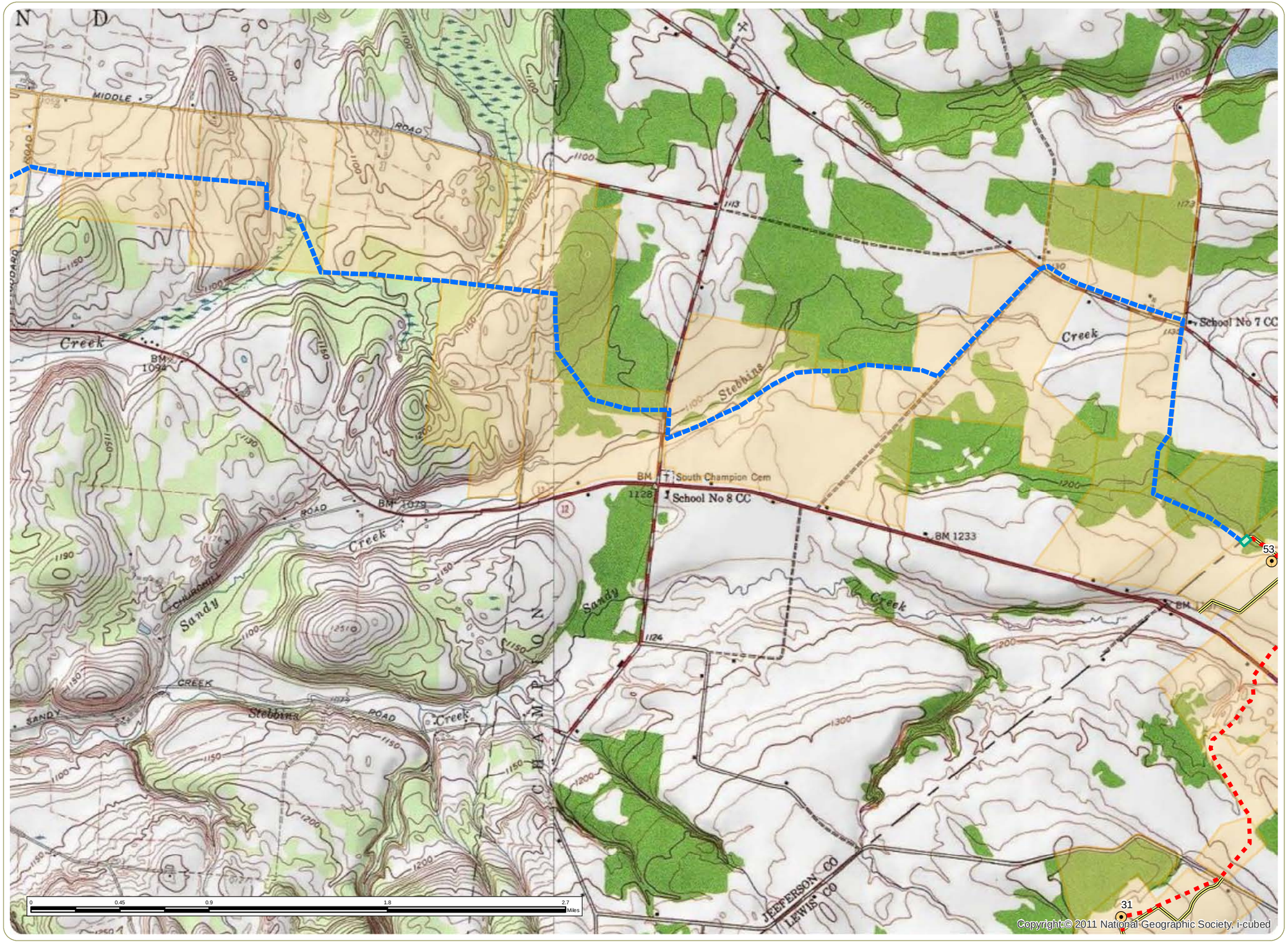

Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 3: Topographic Mapping Sheet 2 of 3

April 2014

- Wind Turbine
- Collection Station
- Electrical Interconnect
- Access Road
- Transmission Line
- O&M Building
- Project Area
- Meteorological Tower

Notes:
Basemap: ESRI Online USA Topo Maps

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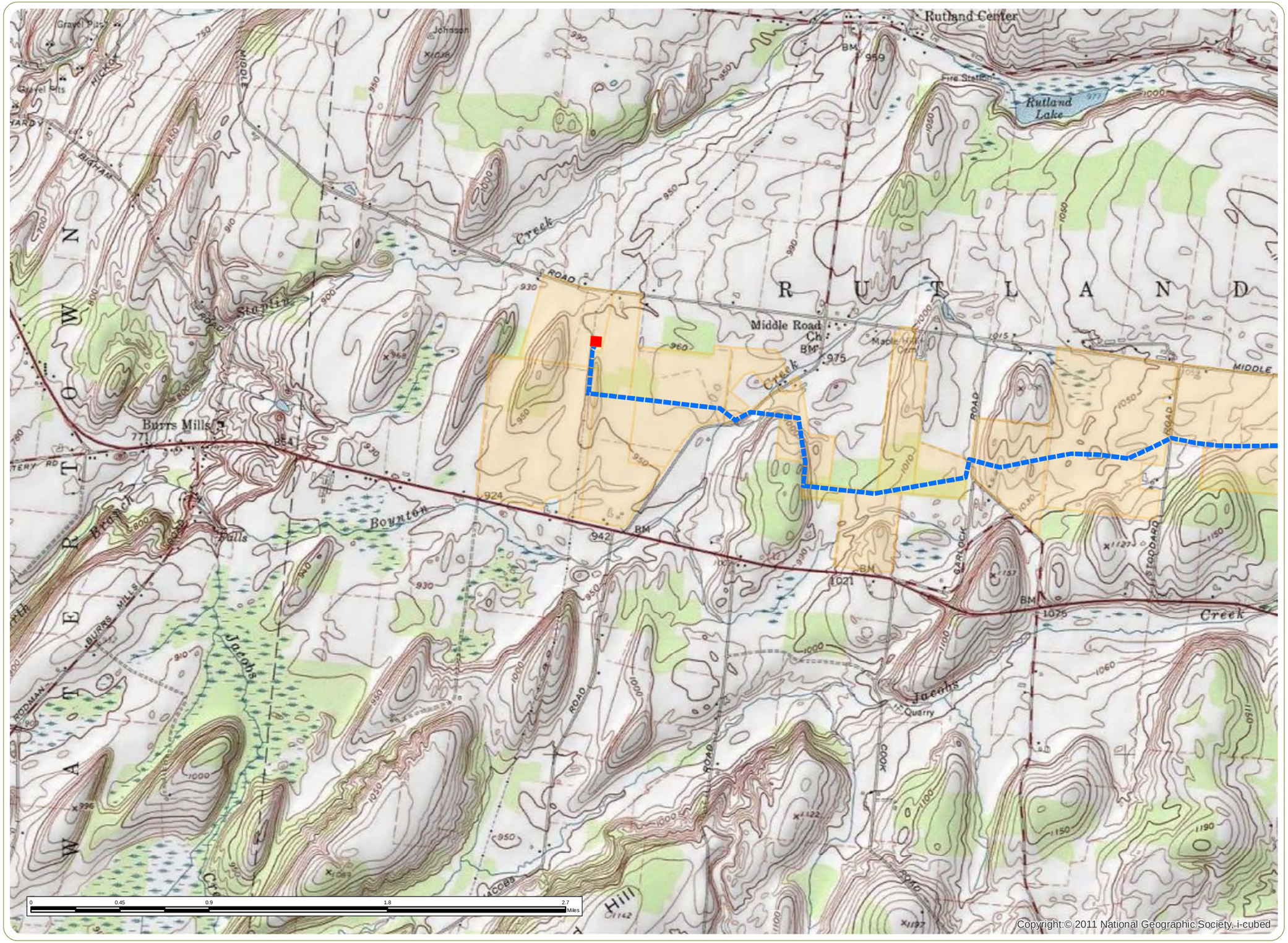

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Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 3: Topographic Mapping Sheet 3 of 3

April 2014

POI Substation
Transmission Line
Project Area

Notes:
Basemap: ESRI Online USA Topo Maps

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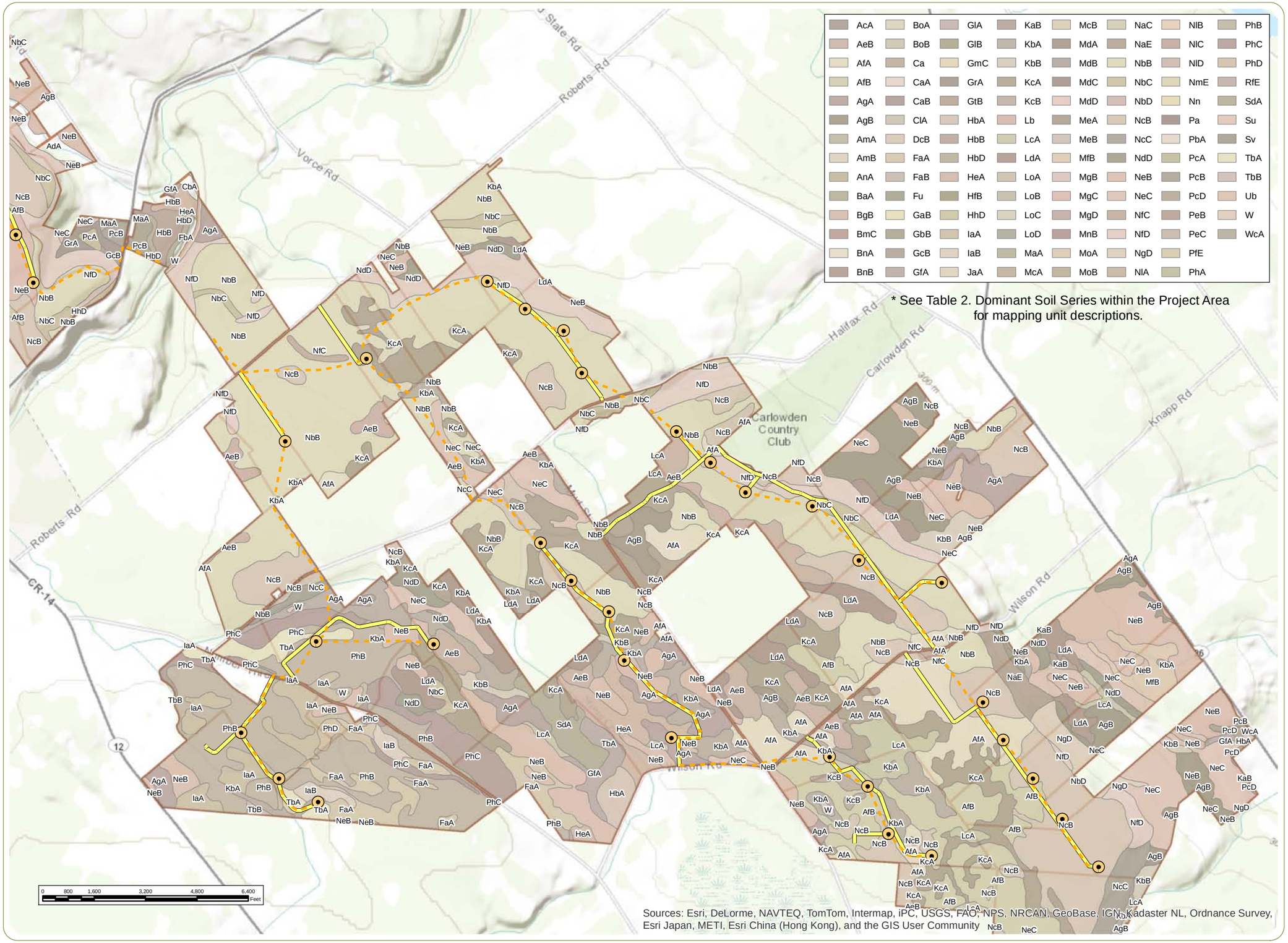


* See Table 2. Dominant Soil Series within the Project Area for mapping unit descriptions.

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, iPC, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

Copenhagen Wind Farm

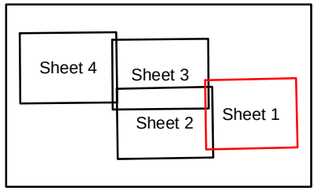
Town of Denmrk, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 4: Project Area Soils

Sheet 1 of 4

April 2014

- Wind Turbine
- Buried Interconnect
- Access Road
- Project Area



Notes: Basemap: ESRI World Topographic Online Map

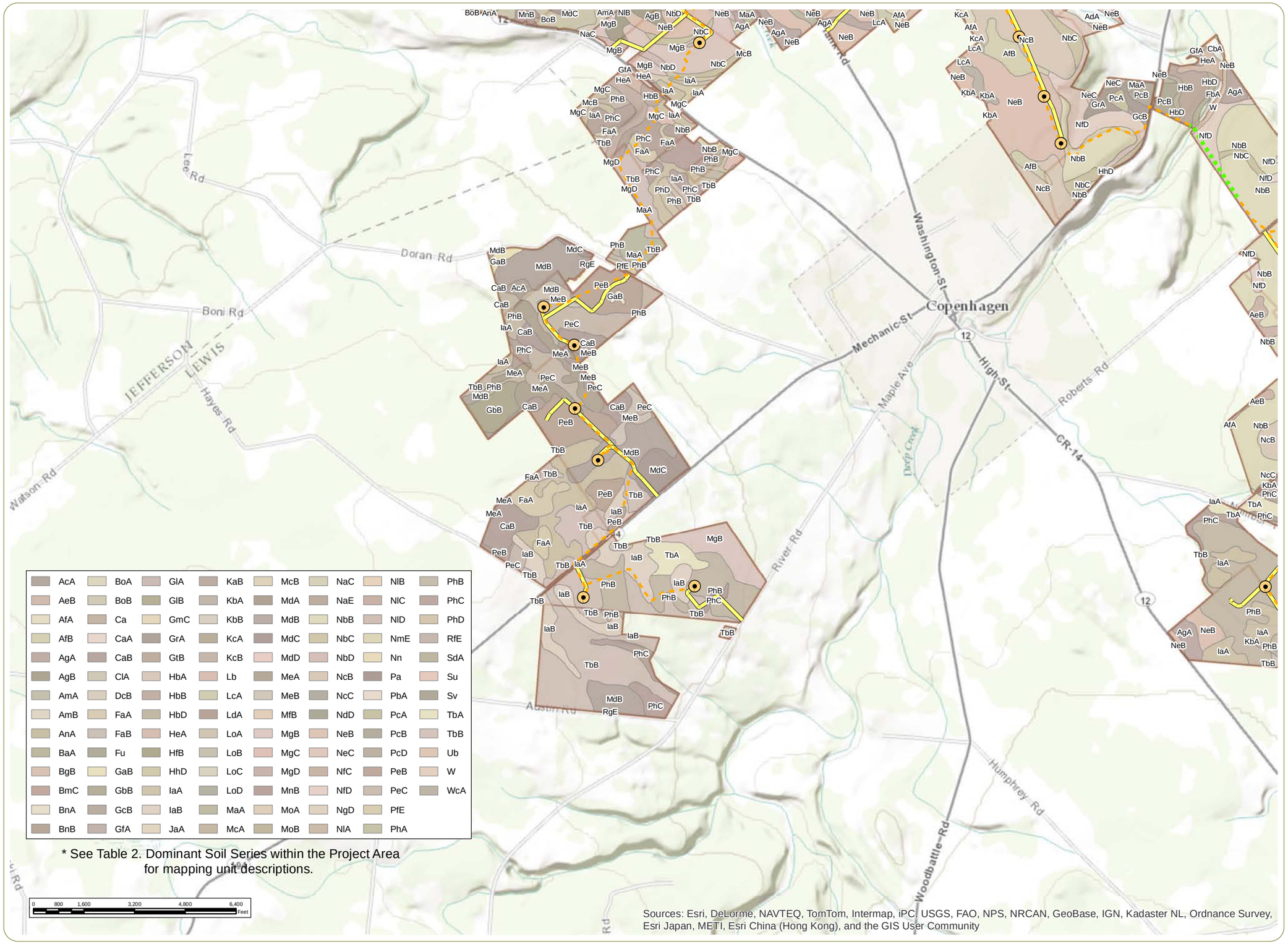
Copenhagen Wind Farm

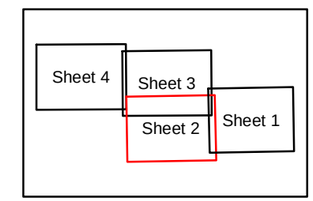
Town of Denmrk, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 4: Project Area Soils
Sheet 2 of 4

April 2014

- Wind Turbine
- Overhead Interconnect
- Buried Interconnect
- Access Road
- Project Area





Notes: Basemap: ESRI World Topographic Online Map

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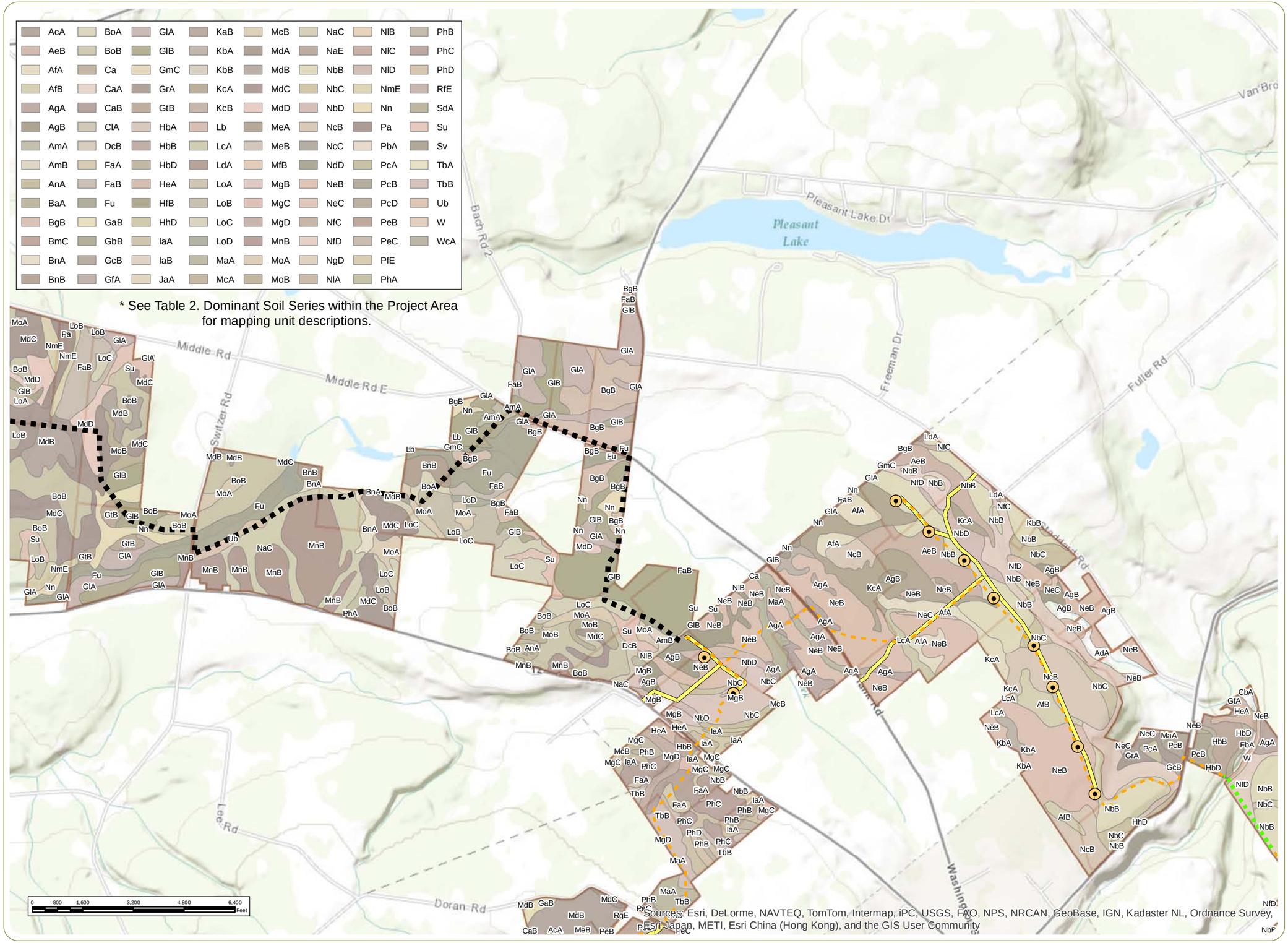


Copenhagen Wind Farm

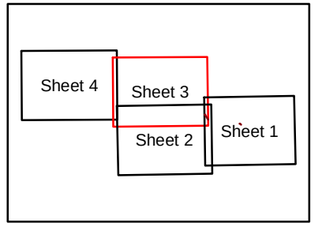
Town of Denmrk, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 4: Project Area Soils

Sheet 3 of 4

April 2014

- Wind Turbine
- Transmission Line
- Overhead Interconnect
- Buried Interconnect
- Access Road
- Project Area



Notes: Basemap: ESRI World Topographic Online Map

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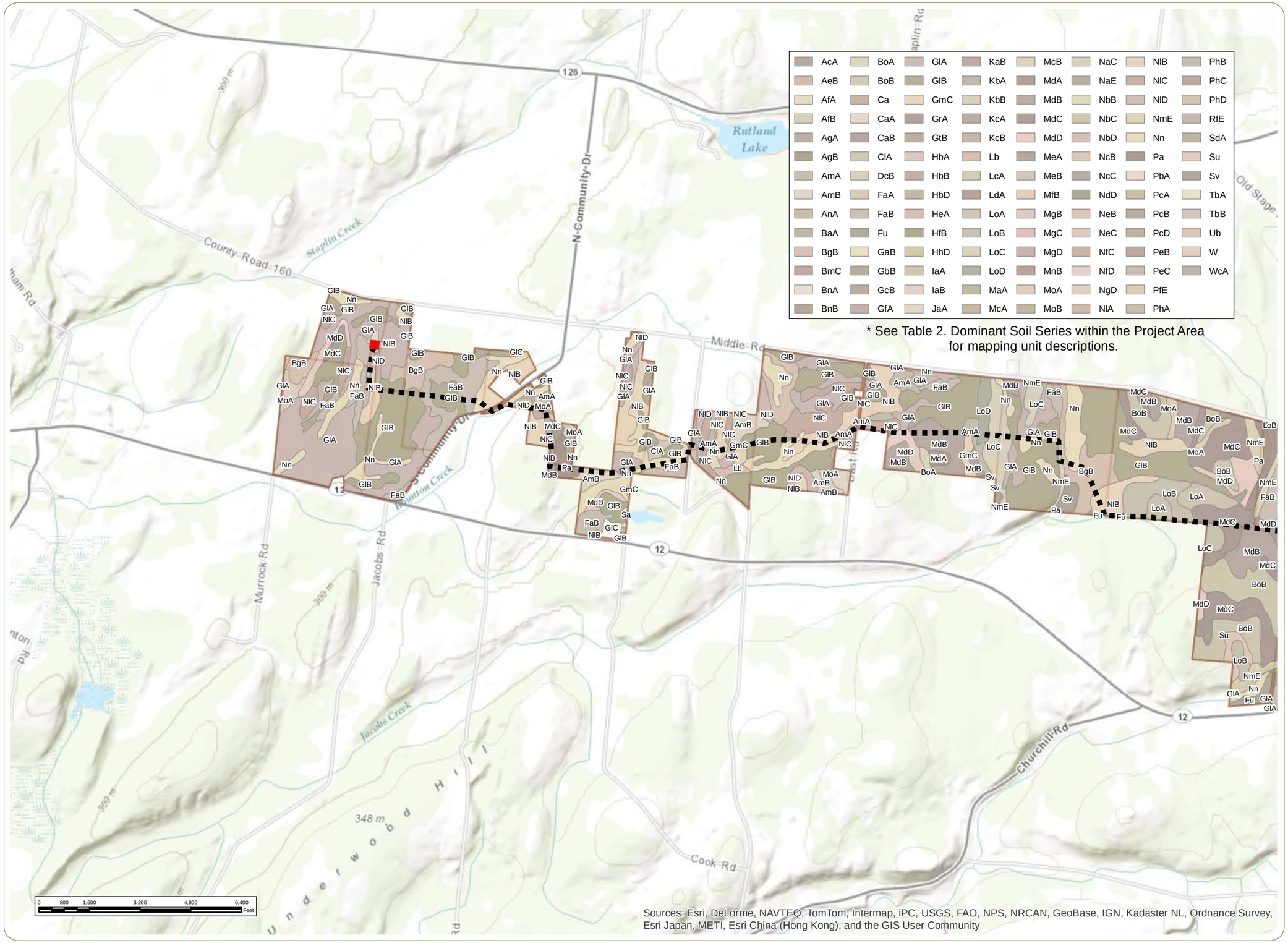
Copenhagen Wind Farm

Town of Denmrk, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 4: Project Area Soils
Sheet 4 of 4

April 2014

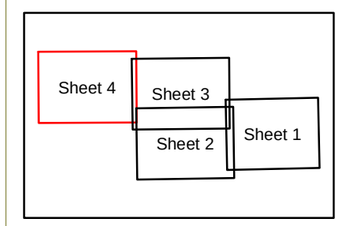


Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, iPC, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

POI Substation

Transmission Line

Project Area



Notes: Basemap: ESRI World Topographic Online Map

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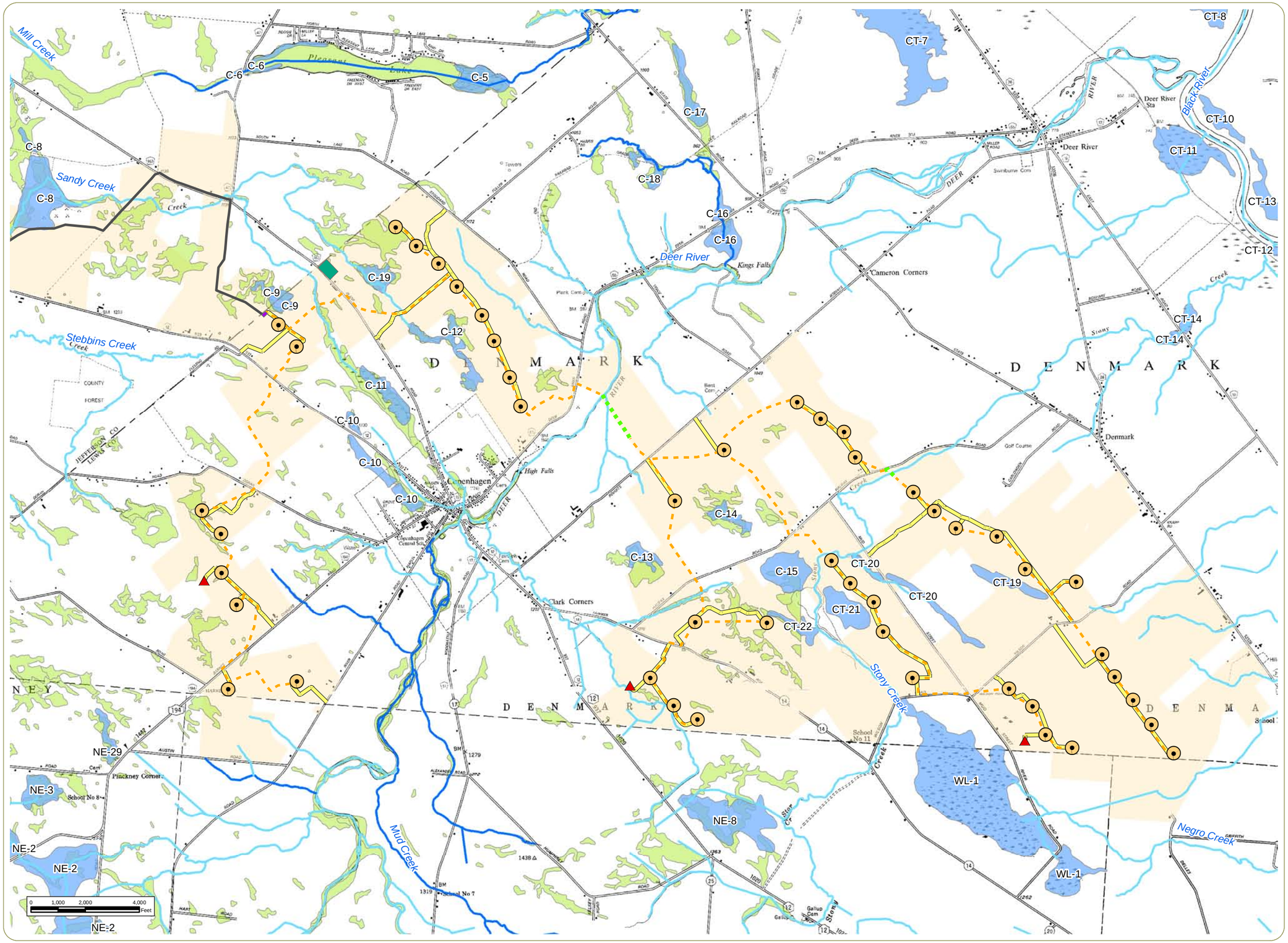

Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 5: Mapped Wetlands and Streams
Sheet 1 of 2

April 2014

- Wind Turbine
- Meteorological Tower
- Collection Station
- Overhead Interconnect
- Transmission Line
- Buried Interconnect
- O&M Building
- Access Road
- NYS Protected Streams
- Unprotected Streams
- NYSDEC Wetland
- NWI Wetland
- Project Area

Notes:
Basemap: USGS *West Lowville, New Boston, Barnes Corners, Rutland Center, Copenhagen, and Carthage* 1:24,000 Scale Totpographic Quadrangles rendered black and white

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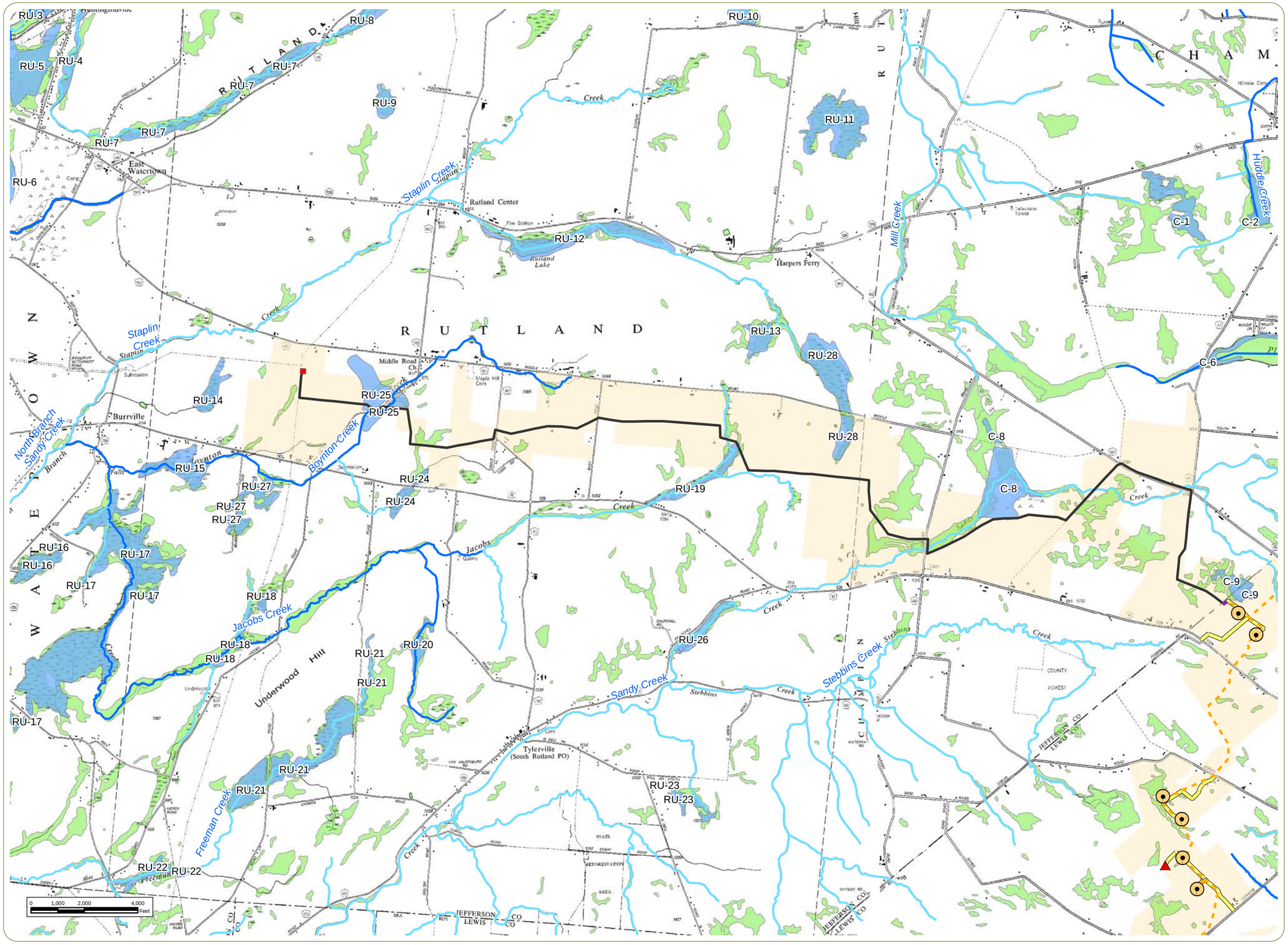

Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland and Champion, Jefferson County

Figure 5: Mapped Wetlands and Streams
Sheet 2 of 2

April 2014

- POI Substation
- Wind Turbine
- Meteorological Tower
- Collection Substation
- Transmission Line
- Electrical Interconnect
- Access Road
- NYS Protected Streams
- Unprotected Streams
- NYSDEC Wetland
- NWI Wetland
- Project Area

Notes:
Basemap: NYSDOT Planimetric Quadrangles

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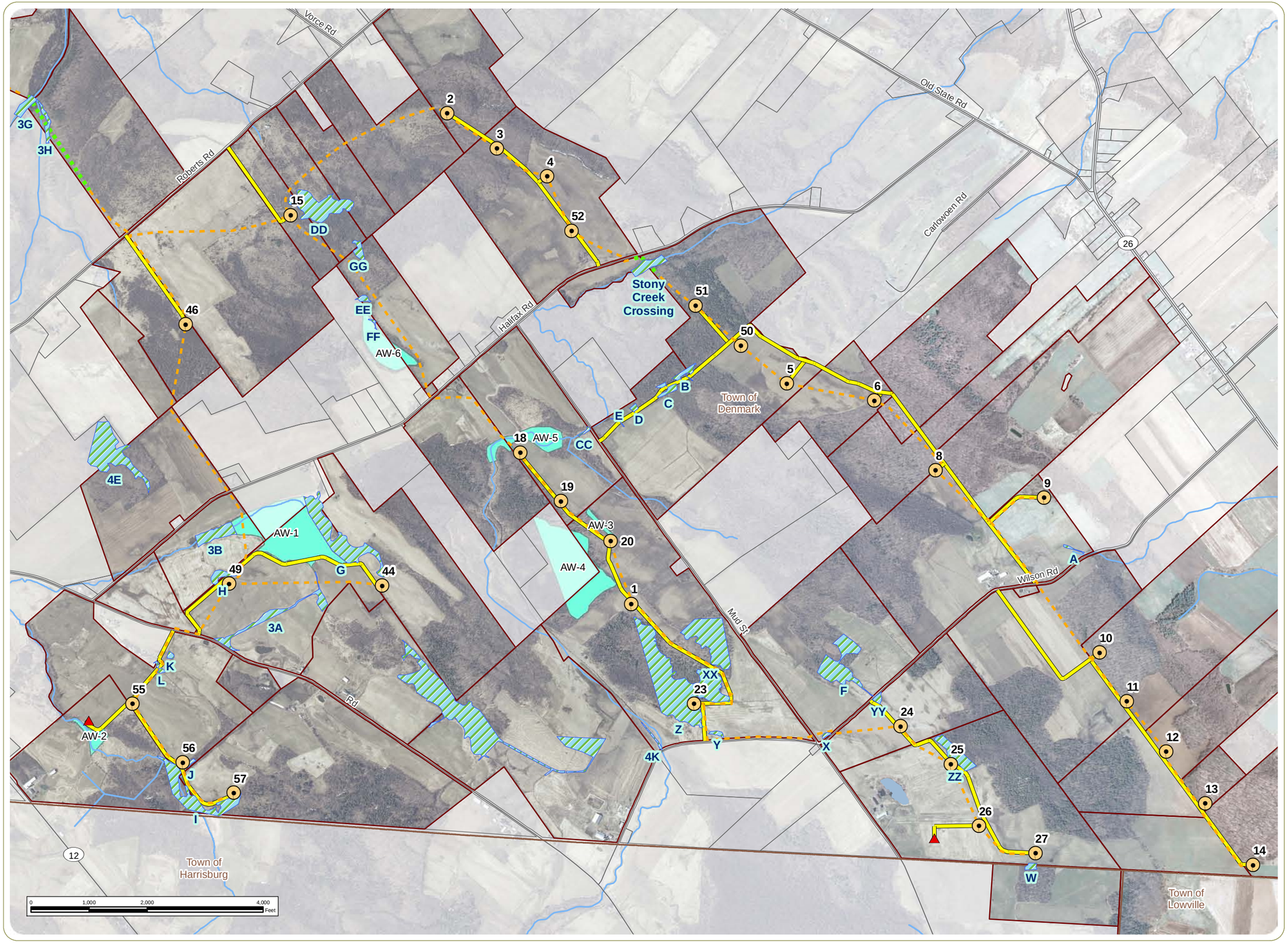


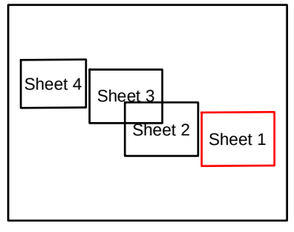
Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland, and Champion, Jefferson County

Figure 6: Delineated Wetlands and streams Sheet 1 of 4

April 2014

- Wind Turbine
- Meteorological Tower
- Delineated Wetlands
- Electrical Interconnect
- Overhead Interconnect
- Access Road
- County Boundary
- Town Boundary
- Parcel Boundary
- Project Boundary
- Approximate Wetland



Notes:
Basemap: 2-foot resolution orthoimagery and ESRI StreetMap North America, 2012.

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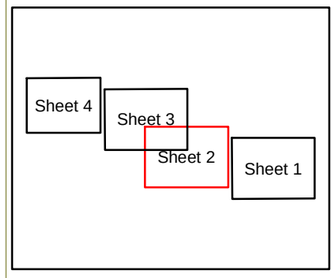
Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland, and Champion, Jefferson County

Figure 6: Delineated Wetlands and streams Sheet 2 of 4

April 2014

- Wind Turbine
- Meteorological Tower
- Collection Substation
- Electrical Interconnect
- Access Road
- Transmission Line
- O&M Building
- Project Boundary
- Parcel Boundary
- Town Boundary
- County Boundary
- Delineated Wetlands



Notes:
Basemap: 2-foot resolution orthoimagery and ESRI StreetMap North America, 2012.

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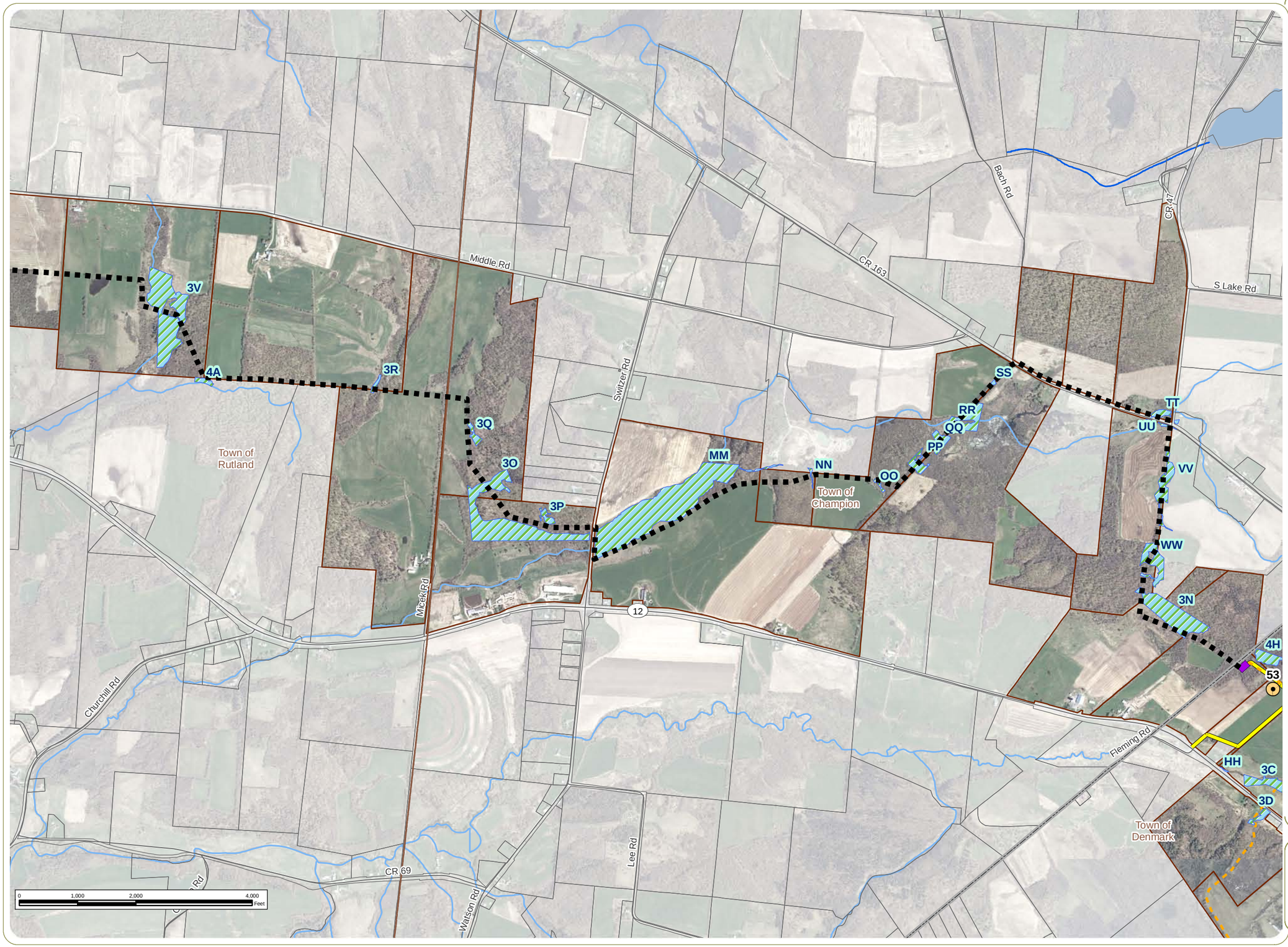
Copenhagen Wind Farm

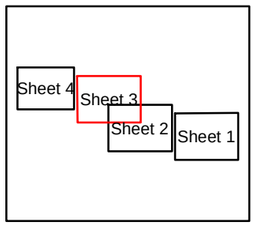
Town of Denmark, Lewis County
Towns of Rutland, and Champion, Jefferson County

Figure 6: Delineated Wetlands and streams
Sheet 3 of 4

April 2014



Wind Turbine
Collection Substation
Electrical Interconnect
Transmission Line
Access Road
Project Boundary
Parcel Boundary
Town Boundary
County Boundary
Delineated Wetlands



Notes:
Basemap: 2-foot resolution orthoimagery and ESRI StreetMap North America, 2012.

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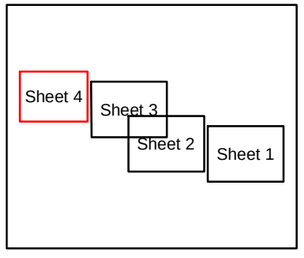
Copenhagen Wind Farm

Town of Denmark, Lewis County
Towns of Rutland, and Champion, Jefferson County

Figure 6: Delineated Wetlands and streams
Sheet 4 of 4

April 2014

- POI Substation
- Transmission Line
- Project Boundary
- Parcel Boundary
- Town Boundary
- County Boundary
- Delineated Wetlands



Notes:
Basemap: 2-foot resolution orthoimagery and ESRI StreetMap North America, 2012.

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APPENDIX B

Routine Wetland Determination Forms

Stream Inventory Data Form

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Wetland A

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: Pippin/Martin
Weather: overcast 80°F

Project Information:
Name: Copenhagen Wind
Number: 12012 Date: 6/25/2013

Stream Name: Unnamed Class C Stream

Regulation Status:
State Protected? No
Corps Jurisdictional? yes

Stream Location (nearest road, structure, etc.): Adjacent to Wilson Road

Adjacent Community: Corn Field

Stream Gradient:
gentle ✓
moderate
steep

Stream Morphology:
bank width unapparent
stream width 4 feet
water depth 1"
bankfull width unapparent

Channel Substrate:
bed rock
boulder
cobble ✓
gravel
sand ✓
silt ✓
clay ✓

Instream Conditions:
obscurred bank ✓
well defined bank
eroded/undercut bank
overhanging vegetation
vegetated channel ✓
logs/woody debris
riffles and runs
deep pools
other

Stream Flow:
permanent
intermittent ✓
ephemeral

Photo #s
Flag #'s

Additional Comments:

Ag field drainage to culvert at farm lane and Wilson Rd.

Vegetated channel portion dominated by Orchard grass (farm) but portion of stream has wetland characteristics but no hydrophytic vegetation (dominant).

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6/25/2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PFO
Data Point ID (i.e. 2W@Wet. G): Isolated wetland B
Nearest Flag to Data Point: B-3

Investigator(s): Riggins/Martin

Landform: Hillside/Seep Toe of Slope **Depressional** Riparian

Landscape Position: **Flat** Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** No

Do Normal Circumstances exist on site? **Yes** No

Is the area a potential problem area? Yes **No**

Is the site significantly disturbed? Yes **No**

Approximate Slope (%): 0-2%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): 0
Depth to Sat. Soil (inches): >18
Depth to Water (inches): >18

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

man made drainages along w/ crossing farm land. Culverts in place at crossings.

Farm land surrounds pasture & multiple man made drainages w/ culverts.

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6/25/2013
Data Point ID: Tw@ wetlnd B

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	60	yes	FACW
2.			
3.			
4.			
5			
	60 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	80	yes	FAC
2.			
3.			
4.			
5			
	80 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carex sp.	50	yes	FACW
2. Aster sp.	15	yes	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	65 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Rapid Test for Hydrophytic Vegetation
- [X] Dominance Test >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (provide supporting data in remarks)
- Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhaver Wind

Sampling Date: 10/25/2013

Data Point ID: Wet Wetland B

Soil Map Unit: AeB Amenia Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10"	10YR 2/1		–	–	–		Silt loam
10" +	Refusal						–

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6/25/2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Upland Forest
Data Point ID (i.e. 2W@Wet. G): NW wetland 3
Nearest Flag to Data Point: B-3

Investigator(s): Riggin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): N/A
Depth to Water (inches): N/A

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

No hydrology observed.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6/25/2013
Data Point ID: IWD wetland B

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Cedar	50	Y	FACU
2. Red Maple	10	N	FAC
3.			
4.			
5			
	60 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Buckthorn	30	Y	FAC
2.			
3.			
4.			
5			
	30 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1.			
2. N/A			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
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: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)
[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

limited herb stratum due to large cedar coverage.

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: AcB Ameola Loam

Sampling Date: 6/25/2013

Data Point ID: Lw@wetland B

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16"	10YR 3/2						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

non-hydric soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6/25/2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@wetland C
Nearest Flag to Data Point: C-5

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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) Frogs / tadpoles
- ___ 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 2-3" (in channels)
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Man made drainage ditches/culverts associated with this wetland

Remarks

~~Did not [illegible]~~

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6/25/2013
Data Point ID: 1W@ wetland C

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green ash	40	yes	FACW
2. A. Elm	10	no	FACW
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Buckthorn	80	yes	FAC
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. wet grasses	yes	80	FACW
2. carex sp.	yes	30	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6/25/2013

Data Point ID: Wetland C

Soil Map Unit: KcA Kendaia silt loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"+	10YR 2/1						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Dark mucky soil - hydric.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____

Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: ~~Denmark~~ Denmark
Sampling Date: 6/25/2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: shrubland
Data Point ID (i.e. 2W@Wet. G): 1W@ wetland C
Nearest Flag to Data Point: C-5

Investigator(s): Rippin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

This upland area is associated with excavated material deposited adjacent to the road at wetland. NO hydrology observed.

Project Number: 1202
Applicant: Copenhagen Wind

Sampling Date: 6/25/2013
Data Point ID: 1m @ wetland C

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. A. Elm	<5	No	FACW
2. G. Ash	<5	No	FACW
3.			
4.			
5			
	<5 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Buck thorn	80	yes	FAC
2.			
3.			
4.			
5			
	80 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Pasture grass			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2. N/A			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

herb grass grazed on by pasture animals (cows).

Project Number: 12012

Applicant: Copenhaver Wind

Sampling Date: 6-25-2013

Data Point ID: Inland wetland C

Soil Map Unit: KcA Kendaia Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16+	10YR 7/2		—	—	—	—	Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Non-hydric Soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6/25/2012
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W@Wetland D
Nearest Flag to Data Point: D-9

Investigator(s): Rippin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- ✓ Surface Water (A1) in ditch
- ___ 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 2" (in ditch)
Depth to Sat. Soil (inches): 2"
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

This PSS is associated with man made ditch w/ culvert in pasture area

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6/25/2013
Data Point ID: IW@ wetland D

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp	70	Y	OBL
2.			
3.			
4.			
5			
	70% = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pasture grasses (grazed)			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- [X] Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Herb layer has been grazed by cows.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6/25/2013

Data Point ID: 1W @ wetland D

Soil Map Unit: KcA Kendrick Silt Loam

Soils

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

Depth (Inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-6"	10YR 2/2		—	—	—	—	Silt loam
6"+	10YR 5/8		—	—	—	—	Sand

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Thick dark layer over bright sand layer in pasture

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)

Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____

If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6/25/2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Scrub Shrub / pasture
Data Point ID (i.e. 2W@Wet. G): Inc wetland D
Nearest Flag to Data Point: D-10

Investigator(s): Figgin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 1-2%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

No hydrology observed.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6/25/2013
Data Point ID: in @ wetland D

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	60	Y	FAC
2.			
3.			
4.			
5			
	60 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pasture grasses			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

herb layer grazed by cows.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6/25/2013

Data Point ID: Individual D

Soil Map Unit: KcA Kendaia Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10"	10YR 3/2		—	—	—	—	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

non-hydric soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Stream Inventory Data Form

edr Companies
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Syracuse, New York 13202

Wetland E

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: Virginia Martin
Weather: Overcast 80°F

Project Information:
Name: Copenhagen Wind
Number: 12612 Date: 6/25/2013

Stream Name: unnamed trib. to Class C stream

Regulation Status:
State Protected? NO
Corps Jurisdictional? yes

Stream Location (nearest road, structure, etc.): Mud Street (Seasonal Road)

Adjacent Community: Pasture / hay field.

Stream Gradient:
gentle ✓
moderate
steep

Stream Morphology:
bank width 10' (man-made channelized)
stream width 3'
water depth 4"
bankfull width 10'

Channel Substrate:
bed rock
boulder
cobble
gravel
sand ✓
silt ✓
clay ✓

Instream Conditions:
obscurred bank ✓
well defined bank
eroded/undercut bank
overhanging vegetation
vegetated channel ✓
logs/woody debris
riffles and runs
deep pools
other

Stream Flow:
permanent
intermittent ✓
ephemeral

Photo #s
Flag #'s

Additional Comments: Small tile originating in hay field to east. Flows west into pasture land at culvert under farm lane and through pasture into Class C stream. Also seeing flow with standing pools completely vegetated.

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@Wet F
Nearest Flag to Data Point: F-59

Investigator(s): M. Martin, J. Pippin

Landform: Hillside/Seep (Toe of Slope) Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 0
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 1202
Applicant: Copenhagen Wind

Sampling Date: 06-26-13
Data Point ID: PW@WetF

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp	10	Y	OBL
2. American elm	10	Y	FACW
3.			
4.			
5			
	20 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	70	Y	FACW
2. Orchard grass	80	Y	FACU
3. Milkweed	15	N	UPL
4. Soft rush	10	N	OBL
5 Blue flag iris	5	N	OBL
6. Late goldenrod	20	N	FACW
7. Vetch	15	N	FACU
8.			
9.			
10.			
	215 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: AFA Amenia loam

Sampling Date: 06-26-13

Data Point ID: 1W @ WetF

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-14	10YR2/1	100					silt loam
14+	10YR5/2	80	10YR5/8	MA	C	M	sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)

If yes, indicate classification _____

Is the wetland a mapped state wetland? (Yes) No

Partially

If yes, indicate wetland ID CT-20

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-25-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Old Field
Data Point ID (i.e. 2W@Wet. G): 1W@WetF
Nearest Flag to Data Point: F-59

Investigator(s): M. Martin / J. Pippin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): NA
Depth to Water (inches): NA

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Portion of the ag field that is currently unfarmed. Between active ag and wetland F.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 06-26-13

Data Point ID: [redacted] IV8WetF

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Timothy grass	80	Y	FACU
2. Orchard Grass	100	Y	FACU
3. Old field cinquefoil	40	N	FACU
4. Canada goldenrod	20	N	FACU
5 Milkweed	15	N	UPL
6.			
7.			
8.			
9.			
10.			
	255	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012
Applicant: Copenhagen Wind
Soil Map Unit: AcA Amenia Loam

Sampling Date: 06-26-13
Data Point ID: 1 U@WetF

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-14	10YR 2/1						silt loam
14+	10YR 5/2						sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____
Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

Stream Inventory Data Form

edr Companies
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: M Martin
Weather: Overcast, drizzle

Project Information:
Name: Copenhagen
Number: 12012 Date: 06-25-13

Stream Name: Unnamed

Regukation Status:
State Protected? NO
Corps Jurisdictional? YES

Stream Location (nearest road, structure, etc.) :

Adjacent Community: Old field/PEM

Stream Gradient:
gentle ✓
moderate
steep

Stream Morphology:
bank width 5'
stream width 2'
water depth 0
bankfull width 5'

Channel Substrate:
bed rock
boulder
cobble
gravel
sand
silt ✓
clay

Instream Conditions:
obscurred bank ✓
well defined bank
eroded/undercut bank
overhanging vegetation ✓
vegetated channel ✓
logs/woody debris ✓
riffles and runs
deep pools
other

Stream Flow:
permanent
intermittent ✓
ephemeral

Photo #s
Flag #s F-59

Additional Comments: Flows between two ag fields

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-26-2013
County: Lewis
State: New York
Community: PFO
Applicant: Copenhagen Wind
Data Point ID (i.e. 2W@Wet. G): 1w @ wetland F
Nearest Flag to Data Point: F-20

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1-2 (in random areas of channel)
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Man made drainage ditch bisects forest area.
Ditch is approx. 10' bank width, with shallow standing water - NO Flow.

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-26-2013
Data Point ID: Two wetlands F

Vegetation

Tree Stratum (Plot size: 30-foot radius)

		Absolute % Cover	Dominant Species?	Indicator Status
1.	Red Maple	60	yes	FAC
2.	A. Elm	10	NO	FACW
3.	Green Ash	10	NO	FACW
4.				
5				
		80	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)

1.	Buckthorn	10	NO	FAC
2.				
3.				
4.				
5				
		10	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)

1.	Sensitive fern	yes	40	FACW
2.	Jewel weed	yes	40	FACW
3.	Orchard grass	NO	10	FACU
4.	Aster Sp.	10	NO	FACU
5				
6.				
7.				
8.				
9.				
10.				
		100	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)

1.	N/A			
2.				
3.				
4.				
5				
			= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Shrub layer almost non-existent in this PFO.

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: _____ Sampling Date: 6-26-2013

County: _____

Applicant: Copenhagen Wind State: New York Community: Upland Forest

Data Point ID (i.e. 2W@Wet. G): 2W@ wetland F Nearest Flag to Data Point: F-20

Investigator(s): Rippin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

No hydrology observed

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 10-26-2013

Data Point ID: Zone wetland F

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Cedar	40	yes	FACW
2. Red Maple	40	yes	FAC
3. A. Elm	20	no	FACW
4. Yellow birch	30	yes	FAC
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	20	yes	FAC
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Lady Fern	20	yes	FAC
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Herb layer limited due to cedar dense coverage.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 10-26-2013

Data Point ID: Swe wetland F

Soil Map Unit: AGB Amenia Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"+	10YR 3/2		—	—	—	—	Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

non-hydric soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 17012
Town: Denmark
Sampling Date: 6-26-2013
County: Lewis.
Applicant: Copenhagen Wind
State: New York
Community: PSS
Data Point ID (i.e. 2W@Wet. G): Zwa wetland G
Nearest Flag to Data Point: G-43

Investigator(s): Sippin / Murtha

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 1-2

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 3-4"
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-26-2013
Data Point ID: 2WD wetland G

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum (2 indiv trees)	<5	NO	FACW
2.			
3.			
4.			
5			
	<5 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	30	Y	OBL
2. Salix sp.	50	Y	FACW
3. Silky dogwood	30	Y	FACW
4.			
5			
	110 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Solidago sp.	25	Y	FACW
2. Sensitive fern	40	Y	FACW
3. Carex sp.	40	Y	FACW
4. orchard grass	10	N	FACU
5			
6.			
7.			
8.			
9.			
10.			
	115 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: KbA Kendaia Silt Loam

Sampling Date: 6-26-2013

Data Point ID: 2w @ wetland G

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10"	10YR 2/2						Silt loam
10"+	10YR 5/1		10YR 5/8	few	RM	M	Clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? (Yes) No

If yes, indicate classification _____
If yes, indicate wetland ID CT-22

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 17012 Town: Denmark Sampling Date: 6-26-2015
County: Lewis
Applicant: Copenhagen Wind State: New York Community: Ag field (Hay)
Data Point ID (i.e. 2W@Wet. G): 2W@wetland G Nearest Flag to Data Point: G-43

Investigator(s): Pippin Lamirth

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

No hydrology observed.

Project Number: 12012

Applicant: Copelwyer

Sampling Date: 6-26-2013

Data Point ID: Lua wetland G

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1.			
2.	pasture grasses &		
3.	clover.		
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Mowed hay field

Project Number: 17012

Applicant: Copenhaver Wtns

Sampling Date: 6-26-2013

Data Point ID: Zone wetland 6

Soil Map Unit: KbA Kendaia Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10"	10YR 2/2						Silt loam
10"+	10YR 5/1		10YR 5/8	Few	RM	M	Clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@Wet6
Nearest Flag to Data Point: G-14

Investigator(s): M. Martin / J. Pippin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 1

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 06-26-13

Data Point ID: 1W@Wet6

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp	15	N	OBL
2.			
3.			
4.			
5			
	15	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Late goldenrod	20	N	FACW
2. Joe pye weed	15	N	FAC
3. Manna grass	95	Y	OBL
4.			
5			
6.			
7.			
8.			
9.			
10.			
	130	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: NeC Nellis Loam

Sampling Date: 06-26-13

Data Point ID: 1W@Wet6

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/2						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? (Yes) No

If yes, indicate classification _____
If yes, indicate wetland ID CT-22

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Mowed field
Data Point ID (i.e. 2W@Wet. G): 1W@WetG
Nearest Flag to Data Point: G-14

Investigator(s): M. Martin / J. Pippin

Landform: (Hillside) Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating (Sloping) Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? (Yes) No

Approximate Slope (%): 10

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream Identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012
Applicant: M. Martin

Sampling Date: 06-26-13
Data Point ID: 1U@Wet6

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Pasture grasses			FACU
2. Clover			FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: M. Martin

Sampling Date: 06-26-13

Data Point ID: 1U@WetC

Soil Map Unit: NeC Nellis Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 4/2						
6+	10YR 4/3						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind State: New York Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W@WetH Nearest Flag to Data Point: H-20

Investigator(s): M. Martin / J. Pippin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 5

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012 Sampling Date: 06-26-13

Applicant: Copenhagen Wind Data Point ID: 1W@WetH

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	85	Y	OBL
2. Silky dogwood	30	Y	FACW
3.			
4.			
5			
	115	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Joe pye weed	40	N	FAC
2. Sensitive fern	60	Y	FACW
3. Jewelweed	30	N	FACW
4. Carex crinita	20	N	OBL
5 Tussock sedge	10	N	OBL
6. Horsetail	30	N	FAC
7. Carex sp	40	N	FACW
8. Orchard grass	50	N	FACU
9.			
10.			
	280	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (provide supporting data in remarks)
- Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 06-26-13

Data Point ID: HW@Wetlt

Soil Map Unit: TbA Turin Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-12	10YR 4/1	80	10YR 5/8	C	C	M	silt loam
12+	10YR 7/1	80	10YR 5/8	C	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-26-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: upland meadow/ old field
Data Point ID (i.e. 2W@Wet. G): 1W@ wetland H
Nearest Flag to Data Point: H-20

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

No hydrology observed.

Project Number: 12012

Applicant: Copenhagen Estate

Sampling Date: 6-26-2018

Data Point ID: In Q wetland A

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Blackberry - Rubus sp.	70	NO	
2. Red top bent grass	30	yes	FACW
3. Solidago sp.	20	NO	FACW
4. Timothy grass	60	yes	FACU
5 Common Milkweed	10	NO	UPL
6.			
7.			
8.			
9.			
10.			
	140	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 2012

Applicant: Copenhaver WTA

Sampling Date: 6-26-2013

Data Point ID: Iw@ wetland 4

Soil Map Unit: TbA Turin Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16"+	10YR 3/3		—	—	—	—	Clay Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Non-hydric soil

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind State: New York Community: Ag field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet I Nearest Flag to Data Point: I-51

Investigator(s): _____

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No wetland hydrology observed

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 06-26-13
Data Point ID: LW @ West T

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Corn	80	Y	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: IoA Illion silt Loam

Sampling Date: 06-26-13

Data Point ID: 11 @ Wet I

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
8	10YR 3/3						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stones

Depth (inches): 8

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification ___
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W@WetI
Nearest Flag to Data Point: I-51...

Investigator(s): M. Martin / J. Pippin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 06-26-13
Data Point ID: 1W@WetI

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow sp.	30	Y	OBL
2. Silky dogwood	10	N	FACW
3. American elm	20	Y	FACW
4.			
5			
	60 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carex crinata	90	Y	OBL
2. Sensitive fern	30	N	FACW
3. Jewelweed	30	N	FACW
4. Horsetail	20	N	FAC
5 Late goldenrod	10	N	FACW
6. Ostrich fern	90	Y	FAC
7.			
8.			
9.			
10.			
	270 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: IaA Tillion Silt Loam

Sampling Date: 06-26-13

Data Point ID: 1W@Wet I

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/1	90	7.5YR 4/6	MA	C	PL	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 6-26-2013
County: Lewis
Applicant: Copenhagen Wind State: New York Community: PSS
Data Point ID (i.e. 2W@Wet. G): 2we wetlal 3 Nearest Flag to Data Point: I-21

Investigator(s): Riggin / Martin

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? Yes **No**

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 4
Depth to Water (inches): 7/20"

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

Project Number: 11012
Applicant: Copenhagen Wind

Sampling Date: 6-26-2013
Data Point ID: Low Wetland I

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix Nigra	60	yes	OBL
2. Silky dogwood	20	No	FACW
3.			
4.			
5			
	80 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Orchard grass	90	yes	FACU
2. Sensitive fern	20	yes	FACW
3. Spirea	10	No	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	120 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhaver Wind

Sampling Date: 6-26-2013

Data Point ID: Zw@ wetlnd I

Soil Map Unit: KbA Kendrick Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10"	10YR 2/1		–	–	–	–	Clay loam
10"+	10YR 5/1		10YR 5/6	MA	RM	M	Clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-26-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Ag. field
Data Point ID (i.e. 2W@Wet. G): Ag @ wetland I
Nearest Flag to Data Point: I-4

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

No hydrology observed.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6-26-2013

Data Point ID: 2nd wetland t

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1.			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No veg. Fresh tilled field planted with corn.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6-26-2013

Data Point ID: Jun 0 wetland I

Soil Map Unit: KbA Kendaia silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"	10YR 3/2						Clay Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Fresh tilled ag. field. - Disturbed soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Ag Field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet J
Nearest Flag to Data Point: J-36

Investigator(s): M. Martin / J. Pippin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

No wetland hydrology observed.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 06-26-13
Data Point ID: 1V@Wet 3

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Corn	80	Y	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 06-26-13

Data Point ID: 1U@Wet 3

Soil Map Unit: IaA Illion silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/3						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stones

Depth (inches): 8"

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

Remarks Soils recently plowed and planted with corn.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes (No) (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-26-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@WetJ
Nearest Flag to Data Point: J-6

Investigator(s): M. Martin / J. Pippin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 3
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 06-26-13

Data Point ID: 1W (Wet)

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Elm	50	Y	FACW
2. Basswood	20	Y	FACU
3. Red Maple	20	Y	FAC
4.			
5.			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silky dogwood	30	Y	FACW
2. Salix sp	30	Y	OBL
3.			
4.			
5.			
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive Fern	90	Y	FACW
2. Carex sp	30	N	FACW
3. Soft rush	20	N	OBL
4. Silky dogwood	20	N	FACW
5. Late goldenrod	15	N	FACW
6.			
7.			
8.			
9.			
10.			
	175	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 06-26-13

Data Point ID: 1 (Wet)

Soil Map Unit: IrA Illion silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/1	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PEM
Data Point ID (i.e. 2W@Wet. G): Lwetland K
Nearest Flag to Data Point: K-2

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Hydrology

Primary Indicators (min. - 1 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) Grey Duck (Mallard)
- ___ 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1-2
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

PEM wetland adjacent to farm lane and corn fields.

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6-27-2013

Data Point ID: Iso @ wetland K

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juncus effusus	20	yes	OBL
2. wetland grasses	40	yes	FACW
3. orchard grass	50	yes	FACU
4. Iris	5	no	OBL
5			
6.			
7.			
8.			
9.			
10.			
	115 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhaver Land

Soil Map Unit: PhB Poland Silt Loam

Sampling Date: 6-27-2013

Data Point ID: 1w@wetlat K

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10+	10YR 3/1		10YR 5/8	MA	RM	M	Clay
	gravel layer (impenetrable)						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

This wetlat appears to be isolated

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? Yes (No) N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes (No) N/A
Is this Wetland Potentially Isolated? (Yes) No N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind State: New York Community: Ag field
Data Point ID (i.e. 2W@Wet. G): 1W@wetland K Nearest Flag to Data Point: K-21

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

No hydrology observed.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-27-2013
Data Point ID: 1w @ wetland K

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1.			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Entire wetland is surrounded by farm land and fresh tilled/planted corn field.

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: PhB Poland Silt Loam

Sampling Date: 6-27-2013

Data Point ID: 1u @ wetland k

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"+	10YR 3/2		—	—	—	—	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Soils are disturbed due to recent plowing / planting in ag. field.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PEM | RIN
Data Point ID (i.e. 2W@Wet. G.: Iwetlal L
Nearest Flag to Data Point: L-4

Investigator(s): Piggin / Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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) Frogs
- ___ 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 3-5
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

See attached sheet for description of intermittent channel.

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-27-2013
Data Point ID: 1w@ wetland L

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Broad leaf cattail	30	yes	OBL
2. Narrow leaf cattail	40	yes	OBL
3. Carex carnita	20	yes	OBL
4. wetland grasses	50	yes	FACW
5 orchard grass	30	yes	FACU
6. Red top	20	yes	FACW
7. Solidago sp.	20	yes	FACW
8. Joe pye weed	20	No	FAC
9. Horse tail	10	No	FAC
10. Lycus effusus	10	No	OBL
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= 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: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 86% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
__ Rapid Test for Hydrophytic Vegetation
X Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)
[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: PhB Poland Silt Loam

Sampling Date: 6-27-2013

Data Point ID: 1 (@ wetland L

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16+	10YR 2/1		–	–	–	–	Clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind State: New York Community: Old field
Data Point ID (i.e. 2W@Wet. G): 1u@wetlnd L Nearest Flag to Data Point: L-4

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 2-3

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

No hydrology observed.

Project Number: 17012
Applicant: Copenhagen Wind

Sampling Date: 6-27-2013
Data Point ID: ~~1~~ C wetland L

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	20	Y	FAC
2. Lonicera sp.	20	Y	FACU
3.			
4.			
5			
	40	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Solidago sp.	60	Y	FACU
2. Orchard grass	40	Y	FACU
3. Vetch	20	N	FACU
4. Red top	10	N	FACW
5 Timothy	10	N	FACU
6.			
7.			
8.			
9.			
10.			
	140	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: PhB Poland Silt Loam

Sampling Date: 6-27-2013

Data Point ID: 1u @ wetland

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"+	10YR 3/3		—	—	—	—	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

non hydric

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

Stream Inventory Data Form

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Wetland L

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: Pippin / Martin
Weather: Clear, sunny, 75°F

Project Information:
Name: Copenhagen Wind
Number: 120127 Date: 6-27-2013

Stream Name: Unnamed

Regulation Status:
State Protected? ND
Corps Jurisdictional? yes

Stream Location (nearest road, structure, etc.): Number three Road

Adjacent Community: PEM wetland & active ag. field (corn)

Stream Gradient:
gentle ✓
moderate
steep

Stream Morphology:
bank width Not apparent
stream width 4'
water depth 3-5"
bankfull width Not apparent

Channel Substrate:
bed rock
boulder
cobble
gravel ✓
sand ✓
silt ✓
clay ✓

Instream Conditions:
obscurred bank ✓
well defined bank
eroded/undercut bank
overhanging vegetation
vegetated channel ✓
logs/woody debris
riffles and runs
deep pools
other

Stream Flow:
permanent
intermittent ✓
ephemeral

Photo #s
Flag #s

Additional Comments: Typical ag. drainage near active ag. fields.

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PEM/RUP
Data Point ID (i.e. 2W@Wet. G): 1W@wetlnd M
Nearest Flag to Data Point: M-4

Investigator(s): Pippin/Martin

Landform: Hillside/Seep Toe of Slope Depressional (Riparian)

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 15% banks of stream

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1-2" in wetlnd
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

See attached stream data sheet

Remarks

PEM wetlands along edge of perennial stream with steep banks.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-27-2013
Data Point ID: IWB wetland M

Vegetation

Tree Stratum (Plot size: 30-foot radius)

		Absolute % Cover	Dominant Species?	Indicator Status
1.	Green Ash	15	yes	FACW
2.				
3.				
4.				
5				
			= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)

1.	Buckthorn	10	yes	FAC
2.	Silky dogwood	10	yes	FACW
3.	green Ash	5	No	FACW
4.				
5				
			= Total Cover	

Herb Stratum (Plot size: 5-foot radius)

1.	Joe Pye weed	40	yes	FAC
2.	Solidago sp.	25	yes	FACW
3.	wetland grasses	50	yes	FACW
4.	water plantain	20	yes	OBL
5	sensitive fern	5	NO	FACW
6.				
7.				
8.				
9.				
10.				
			= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)

1.	N/A			
2.				
3.				
4.				
5				
			= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: LdA Lyons Silt Loam

Sampling Date: 6-27-2013

Data Point ID: 1cs@wetland M

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"+	10YR 2/1		–	–	–	–	Silt loamy muck.

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Thick, dark, saturated muck.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: Denmark

Sampling Date: 6-27-2013

County: Lewis

Applicant: Copenhagen Wind

State: New York

Community: upland Riparian forest

Data Point ID (i.e. 2W@Wet. G): 1W@ wetland M

Nearest Flag to Data Point: M-4

Investigator(s): Pippin/Martin

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 15%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

No hydrology observed.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-27-2013
Data Point ID: Tue wetlands M

Vegetation

Tree Stratum (Plot size: 30-foot radius)

		Absolute % Cover	Dominant Species?	Indicator Status
1.	Green Ash	40	Y	FACW
2.				
3.				
4.				
5				
		40	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)

1.	Buckthorn	80	Y	FAC
2.	G. Ash	25	Y	FACW
3.	~~Solidago sp.~~	~~10~~		
4.				
5				
		105	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)

1.	Solidago sp.	10	N	FACW
2.	Stinging nettle	60	Y	FAC
3.				
4.				
5				
6.				
7.				
8.				
9.				
10.				
		70	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)

1.	N/A			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6-27-2013

Data Point ID: In@wetland M

Soil Map Unit: LdA Lyons silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-10+	10YR 2/2		✓	✓	✓	✓	Silty loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

hydric characteristics observed

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? Yes (No)

Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)

Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____

Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

Stream Inventory Data Form

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274 North Goodman Street
Rochester, New York 14607

Wetland M

Observer:
Name: Pippin / Martin
Weather: Clear, Sunny, 75°F

Project Information:
Name: Copenhagen Wind
Number: 12012 Date: 6-27-2013

Stream Name: Unnamed

Regulation Status:
State Protected? No
Corps Jurisdictional? yes

Stream Location (nearest road, structure, etc.): Fuller Road at Stoddard Rd. intersection

Adjacent Community: upland Forest

Stream Gradient:
- gentle ✓
- moderate
- steep

Stream Morphology:
- bank width 30'
- stream width 5'
- water depth 5"
- bankfull width 15'

Channel Substrate:
- bed rock
- boulder
- cobble ✓
- gravel ✓
- sand ✓
- silt ✓
- clay

Instream Conditions:
- obscurred bank ✓ one side obscured
- well defined bank
- eroded/undercut bank
- overhanging vegetation ✓
- vegetated channel
- logs/woody debris ✓
- riffles and runs ✓
- deep pools
- other

Stream Flow:
- permanent ✓
- intermittent
- ephemeral

Photo #s
Flag #s

Additional Comments:

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 17012
Town: Denmark
Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PFO
Data Point ID (i.e. 2W@Wet. G): Iwe wetland N
Nearest Flag to Data Point: N4

Investigator(s): Pippin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1-2
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 8

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A Wet. Stream @ Flags N-23 → N-43 - See attached Stream Data Sheet.

Remarks

Project Number: 12012
Applicant: Copenhagen

Sampling Date: 6-27-2013
Data Point ID: 1W@westlal W

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	60	yes	FACW
2. Silver Maple	30	yes	FACW
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silky dogwood	40	yes	FACW
2. buckthorn	20	yes	FAC
3. Green Ash	10	NO	FACW
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	40	yes	FACW
2. wetland grasses	60	yes	FACW
3. Solidago sp.	30	NO	FACW
4. Horsetail	30	yes	FACW
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. ~~Ash~~ grape Vitis sp.	10	NO	FAC
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Sampling Date: 6-27-2013

Data Point ID: IW8 wetlnd N

Soil Map Unit: AeB Ameria Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"+	10YR 2/1		—	✓	—	—	Silt loam (Muck)

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Saturated, muck

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 6-27-2013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: Upland Forest
Data Point ID (i.e. 2W@Wet. G): Wetland N
Nearest Flag to Data Point: N-4

Investigator(s): Pappin / Martin

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

N/A

Remarks

no hydrology observed

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 6-27-2013
Data Point ID: 1w@wetland N

Vegetation

Tree Stratum (Plot size: 30-foot radius)

		Absolute % Cover	Dominant Species?	Indicator Status
1.	A. Elm	30	yes	FACW
2.	Green Ash	30	yes	FACW
3.				
4.				
5				
			= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)

1.	Buckthorn	80	yes	FAC
2.	honey suckle	10	no	FACU
3.				
4.				
5				
			= Total Cover	

Herb Stratum (Plot size: 5-foot radius)

1.	Solidago sp.	40	yes	FACU
2.	Poison Ivy	20	yes	FAC
3.	Aster sp.	10	no	FACU
4.				
5				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)

1.	Vitis sp.	20	yes	FACW
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 17012

Applicant: Copenhagen Wind

Soil Map Unit: AeB Ameria Loam

Sampling Date: 6-27-2013

Data Point ID: 1W@wetlandN

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16"	10YR 3/2		—	—	—	—	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Non-hydric

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

Stream Inventory Data Form

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Syracuse, New York 13202

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: Pippin Martin
Weather: Clear Sunny 75°F

Project Information:
Name: Copenhagen Wind
Number: 12612 Date: 6-27-2013

Stream Name: unnamed

Regukation Status:
State Protected? N
Corps Jurisdictional? y

Stream Location (nearest road, structure, etc.) : South of Stockdale Rd at Fuller Rd. Intersection

Adjacent Community: upland Forest

Stream Gradient:
gentle
moderate
steep ✓

Stream Morphology:
bank width 8'
stream width 2'
water depth None present
bankfull width 5'

Channel Substrate:
bed rock
boulder
cobble ✓
gravel ✓
sand ✓
silt
clay ✓

Instream Conditions:
obscurred bank
well defined bank ✓
eroded/undercut bank
overhanging vegetation
vegetated channel
logs/woody debris ✓
riffles and runs
deep pools
other

Stream Flow:
permanent
intermittent ✓
ephemeral

Photo #s
Flag #'s

Additional Comments:

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-27-013
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@WetO
Nearest Flag to Data Point: 08

Investigator(s):

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 0
Depth to Water (inches): ✓

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 06-27-13
Data Point ID: 1W@Wetc

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	40	Y	FACW
2. Basswood	10	Y	FACU
3.			
4.			
5			
	50 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	90	Y	FAC
2. American elm	10	N	FACW
3.			
4.			
5			
	100 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	20	Y	FACW
2. Buckthorn	40	Y	FAC
3. Late goldenrod	15	N	FACW
4. Aster sp.	10	N	FACU
5			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Vitis sp	10	Y	FACW
2.			
3.			
4.			
5			
	10 = 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: NbB Nellis Loam

Sampling Date: 06-27-13

Data Point ID: 1W @ Wet O

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-10	10YR 2/2						clay loam
10+	10YR 4/3						clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 06-27-13
County: Lewis
Applicant: Copenhagen Wind
State: New York
Community: ~~[illegible]~~ Upland Forest
Data Point ID (i.e. 2W@Wet. G): 1U@Wet O
Nearest Flag to Data Point: O-8

Investigator(s): M. Martin / J. Pippin

Landform: (Hillside/Seep) Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating (Sloping) Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? (Yes) No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks: No wetland hydrology observed. Area is a thin, shrubby strip of forest between wetland and corn field.

Project Number: 12012
Applicant: Copenhagen Wind

Sampling Date: 06-27-13
Data Point ID: 1U@Wet O

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Apple	10	Y	FACU
2. Green Ash	5	Y	FACW
3. Black Cherry	5	Y	FACU
4.			
5			
	20 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Lonicera sp.	15	N	FACU
2. Buckthorn	80	Y	FAC
3. Hawthorn	40	Y	FACU
4.			
5			
	135 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Aster sp.	15	Y	FACU
2. Solidago	15	Y	FACU
3. Buckthorn	20	Y	FAC
4.			
5			
6.			
7.			
8.			
9.			
10.			
	50 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= 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: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.5% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Copenhagen Wind

Soil Map Unit: NbB Nellis Loam.

Sampling Date: 06-27-13

Data Point ID: 1U@WetO

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redox Features Frequency[1]	Redox Features Type[2]	Redox Features Loc[3]	Texture, Structure, Other
0-16	10YR 3/2						clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7-17-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@WetP Nearest Flag to Data Point: P-8

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0.5
Depth to Sat. Soil (inches): 8
Depth to Water (inches): 8

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Wetland Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-13

Data Point ID: 1W@WetP

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Jewelweed	50	N	FACW
2. Lamp Rush	20	N	OBL
3. Reed Canary Grass	50	N	FACW
4. Narrow Leaf Goldenrod	40	N	FACW
5 Mint (Mentha arvensis)	20	N	FACW
6. Carex sp.	15	N	FACW
7. ~~Wet Grass~~ Manna Grass	90	Y	OBL
8.			
9.			
10.			
	285	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-2013

Data Point ID: 1W@WetP

Soil Map Unit: PhB Poland Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 2/2	100					Muck
4-8	10YR 2/2	100	10YR 4/6	F	C	PL	clay loam
8-12	10YR 2/2	100	10YR 4/6	C	C	PL	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Rock

Depth (inches): 12

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7-17-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Old field
Data Point ID (i.e. 2W@Wet. G): 1U@ WetP Nearest Flag to Data Point: P-24

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No wetland hydrology. Fallow area between corn & wetland.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-13

Data Point ID: 1U Wet P

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Canada goldenrod	10	N	FACU
2. Timothy	30	N	FACU
3. Bristly Daisy (Oxe-Eye)	20	N	UPL
4. Thistle sp. (Cirsium)	30	N	UPL
5 Old Field cinquefoil	40	N	FACU
6. Common milkweed	10	N	UPL
7. ~~Orchard grass~~ Red Top Panic Grass	90	Y	FACW
8.			
9.			
10.			
	230	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-13

Data Point ID: 10@WetP

Soil Map Unit: PhB Poland Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8"	10YR 4/2	100					Sandy Loam
8-12"	10YR 4/2	100					Sandy Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stones/Sediment

Depth (inches): 12"

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

Remarks

No Hydric Soil present
Refusal at 12"

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/12/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM | PSS(6)

Data Point ID (i.e. 2W@Wet. G): 1W @ wet Q Nearest Flag to Data Point: Q-85

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1"
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Hydrology present

☆ PSS (6) deciduous

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: 1W @ wet Q

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Maple	20	Y	FAC
2. Green Ash	15	Y	FACW
3.			
4.			
5			
	35 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Willow	20	Y	OBL
2. Green ash	15	Y	FACW
3. Silky dogwood	15	Y	FACW
4.			
5			
	50 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	35	N	FACW
2. Boneset	15	N	FACW
3. Reed canary grass	40	Y	FACW
4. Jewelweed	30	N	FACW
5 Carex sp.	30	N	FACW
6. Juncus effusus	25	N	OBL
7. Narrow leaf goldenrod	10	N	FACW
8.			
9.			
10.			
	185 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Grape (River) Vine	5	N	FACW
2.			
3.			
4.			
5			
	5 = 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: 1W @ wetB

Soil Map Unit: CaB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/1	90	10YR 4/4	F	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ 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: Rock

Depth (inches): 6

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PSS1F (Partially)

If yes, indicate wetland ID ___

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/12/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U @ wet Q Nearest Flag to Data Point: Q-85

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating/Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** Recent logging

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): NA
Depth to Sat. Soil (inches): |
Depth to Water (inches): |

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No Hydrology Present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: 1W @ WETQ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver maple	40	Y	FACW
2. Shagbark hickory	15	N	FACU
3. American Beech	30	Y	FACU
4. Black cherry	10	N	FACU
5			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green ash	50	Y	FACW
2. American Beech	35	Y	FACU
3. Honey locust	10	N	FACU
4.			
5			
	95	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Poison ivy	35	Y	FAC
2. Viburnum	35	Y	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	70	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

limited vegetation in understory due to forest canopy and cow grazing

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: WQ wet Q

Soil Map Unit: CaB.

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-12	10YR 3/3						Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No hydric soil indicators

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No**
Is the wetland a mapped state wetland? **Yes** **No**

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/12/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM | PFO
Primarily PEM

Data Point ID (i.e. 2W@Wet. G): 1W@ wetR Nearest Flag to Data Point: R-17

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

logging nearby

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ___ No ___

Depth of Water (inches): 2
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Hummocky microtopography
Portions of wetland disturbed by recent logging activities

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: 1W @ wet R

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple	20	Y	FAC
2. Green ash	40	Y	FACW
3.			
4.			
5			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple	10	Y	FAC
2. Green ash	15	Y	FACW
3.			
4.			
5			
	25	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Narrow leaf goldenrod	30	N	FAC
2. Carex sp	60	Y	FACW
3. late goldenrod	30	N	FACW
4. Sensitive fern	15	N	FACW
5 blue vervain	10	N	FACW
6. jewelweed	40	Y	FACW
7.			
8.			
9.			
10.			
	185	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: 1W (2) wet R

Soil Map Unit: McA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-2	10YR 2/1	90	5YR 5/8	F	C	PL	Clay loam
2-6	10YR 6/4	60	5YR 5/8	C		M	Clay loam
6+	Same		as	Above			

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____

Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/12/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1W@ wet R Nearest Flag to Data Point: R-17

Investigator(s): BS CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID : 1UQ wet R

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver maple	60	Y	FACW
2. Green ash	20	Y	FACW
3. American beech	15	N	FACU
4.			
5			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Blue spruce	10	N	FACU
2. American beech	40	Y	FACU
3. Silver maple	30	Y	FACW
4. Green ash	20	N	FACW
5 black cherry	10	N	FACU
	110	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Poison ivy	15	Y	FAC
2. Wood fern	20	Y	FACU
3. Upland grasses	20	Y	FACU
4. Red clover	10	N	FACU
5			
6.			
7.			
8.			
9.			
10.			
	65	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

limited veg. in understory

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/12/13

Data Point ID: 1W @ wet R

Soil Map Unit: McA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 4/4						Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Roots

Depth (inches): 4

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No**
Is the wetland a mapped state wetland? **Yes** **No**

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/11/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM / Open Water

Data Point ID (i.e. 2W@Wet. G): 1W @ wet S Nearest Flag to Data Point: S-2

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Somewhat more rain this summer

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): 16"
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	____	Gentle	____	Bed Rock	____	Sand	____	No Flow	____
___ Intermittent	Stream Width	____	Moderate	____	Boulder	____	Silt	____	Gentle	____
	Water Depth	____	Steep	____	Cobble	____	Clay	____	Moderate	____
					Gravel	____			Heavy	____

Adjacent Community Type: ____

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ____

Remarks Emergent Fringe / open water (small pond). See photos.
• Wetland Connects to wetland S across farmlane via Culvert.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/11/13

Data Point ID: IWQWetS

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Cattail - narrow	60	Y	OBL
2. Carex sp.	40	Y	FACW
3. Juncus Sp.	30	N	FACW
4. Narrow leaf goldenrod	30	N	FACW
5 Sensitive fern	40	Y	FACW
6.			
7.			
8.			
9.			
10.			
	200	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012 Sampling Date: 7/11/13

Applicant: OwnEnergy Data Point ID : 1W @ wets

Soil Map Unit: MdB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4"	10YR 3/2	100%					Silt Loam
4"+	10YR 3/1	80%	10YR 5/6	F	C	PL	Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No** If yes, indicate classification PUBh
Is the wetland a mapped state wetland? **Yes** **No** If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/11/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U @ Wet5 Nearest Flag to Data Point: 5-3

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 50%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): NA
Depth to Sat. Soil (inches): 4
Depth to Water (inches): 4

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: ____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks NO Hydrology Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/11/2013

Data Point ID: 14 @ Wet 5 (S3)

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Honeylocust	20%	FAC	
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Raspberry	30%	FACU	N
2. Canadian Goldenrod	70%	FACW	Y
3. Timothy Grass	40%	FACU	Y
4. ButterCup	10%	FAC	N
5 Baby's Breath	10%	FAC	N
6.			
7.			
8.			
9.			
10.			
	160	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Steep slope South Ward from small pond.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-11-2013

Data Point ID: 1 (L) Wet S (53)

Soil Map Unit: MdB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6"	10YR 3/6	100%					Sandy loam
6-10"	10YR 3/3	100%					Sandy silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: ROCK

Depth (inches): 10"

Remarks Refusal at 10", rock layer.

Wetland Determination

Hydrophytic Vegetation Present? Yes **No**
Hydric Soil Present? Yes **No**
Wetland Hydrology Present? Yes **No**
Is this Sampling Point Within a Wetland? Yes **No**

Hydrologic Connectivity to Off-site Wetlands? Yes No **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No **N/A**
Is this Wetland Potentially Isolated? Yes No **N/A**

Is the wetland mapped in the NWI? Yes **No**
Is the wetland a mapped state wetland? Yes **No**

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7-11-2013
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM / IC
Data Point ID (i.e. 2W@Wet. G): 1W @ Wet T Nearest Flag to Data Point: T4

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** - Portion of WetT in cow pasture.

Approximate Slope (%): 2%

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- X 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes X No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): 2"
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): 0"

Stream Characteristics

Stream type: ___ Perennial, X Intermittent

Morphology: Bank Width 12"-24", Stream Width 8"-12", Water Depth 2"-5"

Stream Gradient: Gentle X, Moderate ____, Steep ____

Substrate: Bed Rock ____, Boulder ____, Cobble ____, Gravel ____, Sand ____, Silt X, Clay ____

Flow: No Flow ____, Gentle X, Moderate ____, Heavy ____

Adjacent Community Type: ~~PEM~~ Emergent Wetland Fringe.

Instream Conditions:

- X Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- X Vegetated Channel
- ___ Other ____

Remarks Hydrology present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-11-2013

Data Point ID : 1W @ WetT

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Reed-Canary grass	60%	Y	FACW
2. Joe-Pye weed	45%	Y	FAC
3. Jewel Weed	30%	N	FACW
4. Carex sp.	20%	FACW	N
5			
6.			
7.			
8.			
9.			
10.			
	155	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Sampling Date: 7-11-2013

Applicant: OwnEnergy

Data Point ID: 1W (2) WET

Soil Map Unit: MdB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-5"	10YR 3/2	100					Silt Loam
5-10"	10YR 4/2		10YR 4/6	MA	C	M	Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils Present.

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No**
Is the wetland a mapped state wetland? **Yes** **No**

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7-11-2013
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Old field.

Data Point ID (i.e. 2W@Wet. G): 1U@ Wet T Nearest Flag to Data Point: T4

Investigator(s): BS / CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 1%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: ____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks - Immediatly adjacent to farm/Pasture land.
- No Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-11-2013

Data Point ID: 1U @ Wet T

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Timothy Grass	70%	Y	FACU
2. Daisy	20%	N	UPL
3. Canadian Goldenrod	10%	FACU	N
4. Baby's breath	10%	N	FAC
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012 Sampling Date: 7-11-2013

Applicant: OwnEnergy Data Point ID : 1LL @ Wet T

Soil Map Unit: MdB.

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6"	10YR 3/4	100%					Sandy Silt Loam
6" +	10YR 3/3	100%					Sandy Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks No Hydric Soil indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/11/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W @ Wet U Nearest Flag to Data Point: U-49

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No** (somewhat high precip this summer)

Do Normal Circumstances exist on site? **Yes** **No**

Some disturbance from farm equipment

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 3
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): N/A

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/11/13

Data Point ID: 1W @ WetU

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Boneset	30	N	FACW ~~OBL~~
2. Soft Rush	40	N	OBL
3. late goldenrod	40	N	FACW
4. blue vervain (Simplex's Joy)	10	N	FACW
5 Carex sp	30	N	FACW
6. Narrow-leaf goldenrod	50	Y	FAC
7. Buttercup	20	N	FAC
8.			
9.			
10.			
	220	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland veg. dominant

Project Number: 12012 Sampling Date: 7/11/13

Applicant: OwnEnergy Data Point ID: 1W@wetl

Soil Map Unit: IaA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4"	10YR 3/2		10YR 5/8	MA	C	PL/M	Silt loam
4-12"	10YR 3/3	25%	10YR 4/3	C	RM	M	Clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No** If yes, indicate classification PUBh
Is the wetland a mapped state wetland? **Yes** **No** If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/11/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Upland Old Field

Data Point ID (i.e. 2W@Wet. G): 1UpWetU Nearest Flag to Data Point: U-49

Investigator(s): BS, CL

Landform: **Hillside/~~Swp~~** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ____
Stream Width ____
Water Depth ____

Stream Gradient:
Gentle ____
Moderate ____
Steep ____

Substrate:
Bed Rock ____
Boulder ____
Cobble ____
Gravel ____
Sand ____
Silt ____
Clay ____

Flow:
No Flow ____
Gentle ____
Moderate ____
Heavy ____

Adjacent Community Type: ____

Instream Conditions:
____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other ____

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-13

Data Point ID: 1U @ Well

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Honey locust	100	Y	FACU
2. ~~Raspberry~~			
3. ~~Timothy Grass~~			
4.			
5			
	100 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Choke Cherry	10%	Y	FACU
2. Spice Bush	10%	Y	FACW
3.			
4.			
5			
	20 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Raspberry	60%	FACU ↔	Y
2. Timothy Grass	50%	FACU	Y
3. Baby breath	10%	N	FAC
4.			
5			
6.			
7.			
8.			
9.			
10.			
	120 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-11-2013

Data Point ID: 1U @ wet U

Soil Map Unit: IaA

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4"	10YR 3/3		N/A				Sandy Loam
4-8"	10YR 3/4						Sandy Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: gravel / rock

Depth (inches): 8"

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/10/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@wetZ Nearest Flag to Data Point: Z-20

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other _____

Remarks wetland data point taken at edge of corn field and beginning of wetland area.
- Hydrology from adjacent

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/10/13

Data Point ID: IW @ wet z

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Cattails (narrow)	60	Y	OBL
2. Joe-pye weed	20	N	FACW
3. Boneset	10	N	OBL
4. Reed canary grass	40	Y	FACW
5 Orchard grass	25	Y	FACW
6. Timothy grass	10	N	FACU
7.			
8.			
9.			
10.			
	165	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland vegetation dominant

Project Number: 12012 Sampling Date: 7/10/13

Applicant: OwnEnergy Data Point ID : 1W @ wet 2

Soil Map Unit: AgA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-5	10YR 3/2		7.5YR 4/6	F	C	PL	Silt loam
5+	10YR 3/1		7.5YR 4/6	M	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Denmark
Sampling Date: 7-17-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC)
State: **New York**
Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@Wet AA
Nearest Flag to Data Point: AA-5

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 8
Depth to Water (inches): –

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Hydrology present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-13

Data Point ID: 1W @ Wet Area

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	20	Y	FACW
2. American Elm	10	Y	FACW
3. Sugar Maple	20	Y	FACU
4.			
5			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Jewelweed	90	Y	FACW
2. Sensitive fern	20	N	FACW
3. Green Ash	10	N	FACW
4. Late Goldenrod	10	N	FACW
5 Carex sp.	20	N	FACW
6.			
7.			
8.			
9.			
10.			
	150	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Own Energy

Soil Map Unit: TbB Turin Silt Loam

Sampling Date: 7-17-13

Data Point ID: 1W@WetAA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/2	100					clay loam
8-12	10YR 3/2	100	10YR 6/8	F	C	PL	clay loam
12+	10YR 6/6	100	10YR 6/8	MA	C	PL	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____

Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark

Sampling Date: 07-17-13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

State: New York

Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U [redacted]

Nearest Flag to Data Point: AA-5

Investigator(s): Martin, Lidell

Is the area a potential problem area? Yes **(No)**

Landform: **(Hillside/Seep)** Toe of Slope Depressional Riparian

Is the site significantly disturbed? Yes **(No)**

Landscape Position: Flat Undulating **(Sloping)** Convex Concave

Approximate Slope (%): 2

Are climatic/hydrologic conditions on the site typical for this time of year? **(Yes)** No

Do Normal Circumstances exist on site? **(Yes)** No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-17-13

Data Point ID: WS@WetAA

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Elm	20	Y	FACW
2. Sugar Maple	20	Y	FACU
3.			
4.			
5			
	40	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Hophornbeam (Eastern)	10	N	FACU
2.			
3.			
4.			
5			
	10	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Sugar Maple	10	N	FACU
2. Ostrich Fern	60	Y	FAC
3. Raspberry (Common Red)	20	Y	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	90	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-17-13

Data Point ID: 1W@WetAA

Soil Map Unit: Turin Silt Loam TbB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-9	10YR 3/3	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stones

Depth (inches): 9

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification ___
If yes, indicate wetland ID ___

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 07-17-13
County: Lewis
Applicant: Ovn Energy (Copenhagen Wind Farm, LLC)
State: New York
Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W @ Wet BB
Nearest Flag to Data Point: BB-25

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 4
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks Wet land hydrology present.

Project Number: 12012
Applicant: Own Energy

Sampling Date: 07-17-13
Data Point ID: 1w @ Wet BB

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Willow	60	Y	OBL
2. Silky dogwood	10	N	FACW
3.			
4.			
5			
	70 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Late goldenrod	60	Y	FACW
2. Green bulrush (Dark green)	20	N	OBL
3. Carex sp	30	N	FACW
4. Narrow leaf goldenrod	40	Y	FACW
5 Wetland grasses	30	N	FACW
6.			
7.			
8.			
9.			
10.			
	180 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
__ Rapid Test for Hydrophytic Vegetation
X Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)
[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 07-17-13

Data Point ID: 1W @ Wet BB

Soil Map Unit: IaB Illion Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-12	10YR 3/2	100					silt loam
12-16	10YR 4/4	100	10YR 5/8	F	C	PL	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 07-17-13
County: Lewis
Applicant: Ow n Energy
State: New York
Community: Ag field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet BB
Nearest Flag to Data Point: BB25

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 12012

Applicant: Own Energy

Sampling Date: 07-17-2013

Data Point ID: ~~[illegible]~~ 1U(a) WetBB

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Corn	20	FACU	N
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	20	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wet. Veg.

Project Number: 12012

Applicant: Own Energy

Soil Map Unit: IaB Illion Silt Loam

Sampling Date: 07-17-13

Data Point ID: IU@WetBD

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-8	10YR 4/2						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone

Depth (inches): 8"

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

Remarks

No Hydric Soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: New York

Sampling Date: 07-17-13
Community: PSS / [redacted] RUP

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1W@Wet CC

Nearest Flag to Data Point: CC-16

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 8
Depth to Water (inches): 4

Stream Characteristics

Stream type:
- ___ Perennial
- ___ Intermittent

Morphology:
- Bank Width ___
- Stream Width ___
- Water Depth ___

Stream Gradient:
- Gentle ___
- Moderate ___
- Steep ___

Substrate:
- Bed Rock ___
- Boulder ___
- Cobble ___
- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Flow:
- No Flow ___
- Gentle ___
- Moderate ___
- Heavy ___

Adjacent Community Type: ___

Instream Conditions:
- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Associated with peremial stream

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-17-13

Data Point ID: 1W @ Wet CC

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Speckled Alder	60	Y	FACW
2. Buckthorn	20	Y	FAC
3.			
4.			
5			
	80	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Narrow leaf cattail	60	Y	FACW
2. Sensitive Fern	20	N	FACW
3. Joe Pye Weed	15	N	FAC
4. Reed canary grass	80	Y	FACW
5 Carex sp.			FACW
6.			
7.			
8.			
9.			
10.			
	175	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-17-13

Data Point ID: TW@WatCC

Soil Map Unit: NbB Nellis Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/2	100					clay loam
6+	10YR 3/2	80	10YR 5/6	MA	C	PL	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Denmark
Sampling Date: 7-17-2013
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC)
State: **New York**
Community: Hay field
Data Point ID (i.e. 2W@Wet. G): 1W@WetCC
Nearest Flag to Data Point: CC1+

Investigator(s): MM, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): Ø°

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): NA
Depth to Sat. Soil (inches): ↓
Depth to Water (inches): ↓

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No wetland Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-2013

Data Point ID: 1W @ WetCC

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. NA			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Spicebush	20%	Y	FACW
2. ChokeCherry	20%	Y	FACU
3. Hawthorn (English)	10%	Y	FACU
4.			
5			
	50% = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Upland grasses (Hay)	90%	Y	UPL
2. Timothy Grasses	70%	Y	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	160% = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. NA			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Exposed Shale bedrock existing along RUP.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-17-2013

Data Point ID: 1U@ WetCC

Soil Map Unit: NbB Nellis Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-5"	10YR 4/2	100%					Sandy Loam
5"-8"	10YR 4/2	80%	10YR 5/8	MA	C	PL	Sandy Loam
8"-12"	10YR 5/4	80%	10YR 5/8	C	C	M	Sandy Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Shale bed

Depth (inches): 12"

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

Remarks Hydric Soils present.
Depleted matrix.
Refusal at 12"

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes (No) N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification ___
If yes, indicate wetland ID ___

Stream Inventory Data Form

edr Companies
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

274 North Goodman Street
Rochester, New York 14607

Wet CC

Observer:
Name: Martin, Liddell
Weather:

Project Information:
Name: Copenhagen
Number: 12012 Date: 7-17-13

Stream Name: Unnamed

Regukation Status:
State Protected?
Corps Jurisdictional? ✓

Stream Location (nearest road, structure, etc.) : Mud Road, Wet CC

Adjacent Community: PSS

Stream Gradient:
gentle ✓
moderate
steep

Stream Morphology:
bank width 15-20ft
stream width 5-10ft
water depth 3-12 in
bankfull width 15-20ft

Channel Substrate:
bed rock ✓
boulder
cobble ✓
gravel ✓
sand
silt
clay

Instream Conditions:
obscurred bank
well defined bank ✓
eroded/undercut bank
overhanging vegetation ✓
vegetated channel
logs/woody debris ✓
riffles and runs
deep pools
other

Stream Flow:
permanent ✓
intermittent
ephemeral

Photo #s
Flag #'s

Additional Comments:

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark

County: Lewis

State: New York

Sampling Date: 07-18-13

Community: PSS

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1W@WetDD

Nearest Flag to Data Point: DD-32

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___

Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-1

Depth to Sat. Soil (inches): 0

Depth to Water (inches): 6

Stream Characteristics

Stream type:
- ___ Perennial
- ___ Intermittent

Morphology:
- Bank Width ___
- Stream Width ___
- Water Depth ___

Stream Gradient:
- Gentle ___
- Moderate ___
- Steep ___

Substrate:
- Bed Rock ___
- Boulder ___
- Cobble ___
- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Flow:
- No Flow ___
- Gentle ___
- Moderate ___
- Heavy ___

Adjacent Community Type: ___

Instream Conditions:
- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Wetland Hydrology Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W@Wet DD

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	5	N	FACW
2.			
3.			
4.			
5			
	5 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	15	N	FAC
2. Black Willow	70	Y	OBL
3. Eastern Cottonwood	10	N	FAC
4. Green Ash	15	N	FACW
5 Honeysuckle	15	N	FACU
	125 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Narrow leaved goldenrod	15	N	FACW
2. Sensitive fern	15	N	FACW
3. Carex sp.	50	Y	FACW
4. Horsetail (Field)	40	Y	FAC
5			
6.			
7.			
8.			
9.			
10.			
	120 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W@WetDD

Soil Map Unit: KcA Kendaia Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 2/1						Muck
8-12	10YR 4/2		10YR 5/8	MA	C	PL	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 12

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

Remarks

Hydric soil present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)

Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____

If yes, indicate wetland ID _____

Environmental Design & Research
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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 07-18-13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: SS

Data Point ID (i.e. 2W@Wet. G): 1U@WetDD Nearest Flag to Data Point: DD-32

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U@WetDD

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	100	Y	FAC
2. American Elm	10	N	FACW
3. Honeysuckle	15	N	FACU
4. Apple	15	N	FACU
5			
	140 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Canada goldenrod	20	Y	FACU
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	20 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Vitis sp. (summer)	5	N	FACU
2.			
3.			
4.			
5			
	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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U @ WetDD

Soil Map Unit: KdA- Kendaia silt Loam.

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/2						clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 10

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

Remarks

No Hydric soil present.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: New York

Sampling Date: 07-18-13
Community: PFO

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1W@Wet EE

Nearest Flag to Data Point: EE-2

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-2
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 3

Stream Characteristics

Stream type:
- ___ Perennial
- ___ Intermittent

Morphology:
- Bank Width ___
- Stream Width ___
- Water Depth ___

Stream Gradient:
- Gentle ___
- Moderate ___
- Steep ___

Substrate:
- Bed Rock ___
- Boulder ___
- Cobble ___
- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Flow:
- No Flow ___
- Gentle ___
- Moderate ___
- Heavy ___

Adjacent Community Type: ___

Instream Conditions:
- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Wet. Hydro. present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W@5 WetEE

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.		Y	FACW
4.		Y	FACW
5		Y	FACW
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	50	Y	FAC
2. Cottonwood	10	N	FAC
3. Green Ash	20		
4. American Elm	15		
5 Silver Maple	15		
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive Fern	90	Y	FACW
2. Carex sp.	40	Y	FACW
3. Late goldenrod	10	N	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	140	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W@WetFF

Soil Map Unit: NbB Nellis ~~Silt~~ Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-1	10YR 2/1						Muck
1-6	10YR 3/2						clay loam
6-8	10YR 5/6						clay loam
8-12	10YR 5/6		7.5YR 5/8	MA	C	M	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soil present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? (Yes) No N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____

Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 07-18-2013
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: New York Community: NDF
Data Point ID (i.e. 2W@Wet. G): 1U@WetEF Nearest Flag to Data Point: 1U@WetEF

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No wetland hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U @ Wet EE

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. ~~American~~ Eastern Hophornbeam	40	Y	FACU
2. Black Cherry	10	N	FACU
3. Eastern Cottonwood	15	Y	FAC
4.			
5			
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Hemlock	15	Y	FACU
2. Sugar Maple	15	Y	FACU
3. Gray dogwood	10	Y	FAC
4.			
5			
	40	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Jack in the Pulpit	10	Y	FAC
2. ~~American~~ Hophornbeam	15	Y	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	25	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U @ Wet E-E

Soil Map Unit: NbB Nellis Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/2	100					sandy loam
8-12	10YR 3/3	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stones

Depth (inches): 12

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

Remarks

No Hydric Soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

Environmental Design & Research
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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Denmark
Sampling Date: 7-18-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC)
State: **New York**
Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@Wet FF
Nearest Flag to Data Point: FF-13

Investigator(s): Martin Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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) Wood Frog
___ 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): 6
Depth to Water (inches): –

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Wet. Hydro. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W @ Wet FF

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	10	Y	FACU
2. Green Ash	30	Y	FACW
3.			
4.			
5			
	40 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Buckthorn	20	Y	FAC
2. Green Ash	20	Y	FACW
3.			
4.			
5			
	40 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Late goldenrod	15	Y	FACW
2. Sensitive fern	50	Y	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	65 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. Vitis sp (Riverbank)	10	N	FAC
2.			
3.			
4.			
5			
	10 = 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W (on) Wet FF

Soil Map Unit: NeC Nellis Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 2/1	100					silt loam
6-10	10YR 2/1	10					silt loam
6-10	10YR 4/3	90	10YR 5/8	F	C	PL	silt loam
10-12	10YR 4/1	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 12

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

Remarks Tail end of FF in NWI wetland.

Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification PFO1E

If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: _____

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: New York Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1W@WetFF Nearest Flag to Data Point: FF-13

Investigator(s): Martin, Liddell

Is the area a potential problem area? Yes **(No)**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? Yes **(No)**

Landscape Position: **(Flat)** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 0

Are climatic/hydrologic conditions on the site typical for this time of year? **(Yes)** **No**

Do Normal Circumstances exist on site? **(Yes)** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: TU@ Wet FF

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	100	Y	FACU
2. Black Cherry	30	Y	FACU
3.			
4.			
5			
	130 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	30	Y	FACU
2. Buckthorn	20	Y	FAC
3.			
4.			
5			
	50 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Christmas fern	20	Y	FACU
2. Wood fern	30	Y	FACU
3. Green Ash	20	Y	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	70 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U@WetFF

Soil Map Unit: NeC Nellis Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/3	100					sandy loam
10-16	10YR 5/6	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No Hydric Soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification PFO1E

If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: ~~6-17-13~~ 7-18-13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PFO

Data Point ID (i.e. 2W@Wet. G): 1W@WetG6 Nearest Flag to Data Point: GG-3

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 6
Depth to Water (inches): 8

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Hydrology present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1W(a) Wet 66

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple	20	Y	FACW
2. Red Maple	40	Y	FAC
3. Green Ash	20	Y	FACW
4.			
5			
	80	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	20	Y	FAC
2. Green Ash	20	Y	FACW
3.			
4.			
5			
	40	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	70	Y	FACW
2. Jack in the Pulpit	10	N	FAC
3. Jewelweed	20	N	FACW
4. Horsetail (Field)	20	N	FAC
5			
6.			
7.			
8.			
9.			
10.			
	120	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date:

Data Point ID: 1W@Wet66

Soil Map Unit: KbA Kendaia Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 2/1	~~75~~ 100					Muck
10+16	10YR 5/6	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone

Depth (inches): 16

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

Remarks Hydric Soil present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)

Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification ___

If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: _____

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U@Wet GG Nearest Flag to Data Point: GG-3

Investigator(s): Martin, Liddell

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 2

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

No Wet. Hydro.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: TW@WetGG

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	100	Y	FACU
2. American Elm	20	N	FACW
3. Yellow Birch	20	N	FAC
4. Beech	20	N	FACU
5			
	160	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Basswood	10	Y	FACU
2. Sugar Maple	20	Y	FACU
3.			
4.			
5			
	30	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Jack in the Pulpit	15	Y	FAC
2. Wood Fern	10	Y	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	25	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Sparsely vegetated herb layer

No Wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U@WetGG

Soil Map Unit: KbA Kendaia Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-6	10YR 3/3	100					Sandy loam
6-8	10YR 3/3	30					Sandy loam
6-8	10YR 4/4	70					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stones

Depth (inches): 8

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

Remarks

No hydric soils

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification _____

If yes, indicate wetland ID _____

Stream Inventory Data Form

edr Companies
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: Martin, Liddell
Weather:

Project Information:
Name: Copenhagen
Number: 12012 Date: 7-18-13

Stream Name: unnamed

Regukation Status:
State Protected? no
Corps Jurisdictional? ✓

Stream Location (nearest road, structure, etc.): Hwy 12 West HH

Adjacent Community: Disturbed/Ag

Stream Gradient:
gentle ✓
moderate
steep

Stream Morphology:
bank width 3'
stream width 1'
water depth 2-12"
bankfull width 3'

Channel Substrate:
bed rock
boulder
cobble ✓
gravel
sand ✓
silt ✓
clay

Instream Conditions:
obscurred bank ✓
well defined bank ✓
eroded/undercut bank
overhanging vegetation ✓
vegetated channel ✓
logs/woody debris
riffles and runs
deep pools
other

Stream Flow:
permanent ✓
intermittent
ephemeral

Photo #s
Flag #'s

Additional Comments:

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Denmark
Sampling Date: 7-18-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC)
State: **New York**
Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@ Wet HH
Nearest Flag to Data Point: HH11+

Investigator(s): MM, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** Roadside

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

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

Secondary Indicators (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes X No ___
Saturated Conditions? Yes X No ___

Depth of Water (inches): 2-12"
Depth to Sat. Soil (inches): /
Depth to Water (inches): /

Stream Characteristics

Stream type: ___ Perennial, X Intermittent

Morphology: Bank Width 3 ft; Stream Width 1 ft; Water Depth 2-12"

Stream Gradient: Gentle X; Moderate ___; Steep ___

Substrate: Bed Rock ___; Boulder ___; Cobble ___; Gravel ___; Sand ___; Silt X; Clay ___

Flow: No Flow ___; Gentle X; Moderate ___; Heavy ___

Adjacent Community Type: Roadside/disturbed

Instream Conditions:
- ___ Obscurred Banks
- X Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- X Vegetated Channel
- ___ Other ___

Remarks Irrigation of roadside, connected to larger wetland otherside of road through 5ft cement culvert.

Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-18-2013

Data Point ID: IW@Wet HH

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. NA			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. NA			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Reed Canary	90%	Y	FACW
2. Cattail (Narrow-Leaf)	30%	N	~~FACW~~ OBL
3. Sensitive fern	20%	N	FACW
4. Wet grasses	20%	N	FACW
5			
6.			
7.			
8.			
9.			
10.			
	160 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. NA.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-18-2013

Data Point ID: 1W @ Wet ###

Soil Map Unit: FaA Fonda Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16	10YR 3/1	100	10YR 5/8	C	C	PL	Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Denmark
County: Lewis
State: **New York**
Sampling Date: 7-18-13
Applicant: OwnEnergy (Copenhagen Wind farm, LLC)
Community: Disturbed Roadside
Data Point ID (i.e. 2W@Wet. G): 1W@Wet H H
Nearest Flag to Data Point: 1H H +

Investigator(s): MM, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2%

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No** Roadside disturbance

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No Hydrology present. Roadside

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-18-2013

Data Point ID : 12(@wet HH

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. NA			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. NA			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Upland grasses	95%	Y	FACU
2. Queen Ann's lace	20%	N	UPL
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	115	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. NA			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Recently mowed roadside.
No wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-18-13

Data Point ID: 1U@WetHH

Soil Map Unit: FaA Fonda Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-12"	10YR 4/2	100					Silt Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone Layer

Depth (inches): 12"

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

Remarks No Hydric Soil Indicators present.

Wetland Determination

Hydrophytic Vegetation Present? Yes **No**
Hydric Soil Present? Yes **No**
Wetland Hydrology Present? Yes **No**
Is this Sampling Point Within a Wetland? Yes **No**

Hydrologic Connectivity to Off-site Wetlands? Yes No **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No **N/A**
Is this Wetland Potentially Isolated? Yes No **N/A**

Is the wetland mapped in the NWI? Yes **No**
Is the wetland a mapped state wetland? Yes **No**

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: **New York**

Sampling Date: 07-19-2013
Community: PSS

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1W@WetII

Nearest Flag to Data Point: II-36

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 6
Depth to Water (inches): –

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Wet. Hydro. Present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-19-2013

Data Point ID: 1W @ Wet II

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Willow	80	Y	OBL
2. ~~[illegible]~~			
3. Green Ash	10	N	FACW
4. Silky Dogwood	20	N	FACW
5			
	110	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Reed Canary Grass	40	Y	FACW
2. Sensitive Fern	60	Y	FACW
3. Jewelweed	40	Y	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	140	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-19-13

Data Point ID: 1W @ Wet II

Soil Map Unit: PeC Pickney Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/1	100	10YR 4/6	MA	C	M	clay loam
10-12	10YR 4/1	100	10YR 4/6	MA	C	M	clay loam
10-12	~~10YR 5/1~~		10YR 5/8	F	C	PL	clay loam
12-16	10YR 4/1	30	10YR 4/6	C	C	M	clay loam
	10YR 5/2	50	10YR 3/1	F	C	PL	clay loam
	~~10YR~~						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PSS1E (2 spots)

If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: **New York**

Sampling Date: 07-19-2013
Community: Hay field

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1U@WetII

Nearest Flag to Data Point: II-36

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-19-13

Data Point ID: 1U @ Wet II

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Old field cinquefoil	60	Y	FACU
2. Queen Anne's Lace	20	N	~~FACU~~ UPL
3. Red clover	20	N	FACU
4. Upland grasses	100	Y	FACU
5 Upland sedge	50	N	FACU
6. Buttercup (Bristly)	10	N	FAC
7.			
8.			
9.			
10.			
	260	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-19-13

Data Point ID: 1U@WetII

Soil Map Unit: Pickney Silt Loam PeC

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-12	10YR 5/4	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No Hydric Soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~
If yes, indicate classification _____

Is the wetland a mapped state wetland? ~~Yes No~~
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Copenhagen
County: Lewis
State: New York
Sampling Date: 7/19/2013
Community: PSS/RIN
Applicant: OWN Energy
Nearest Flag to Data Point: II-4
Data Point ID (i.e. 2W@Wet. G): 2W@Wet II

Investigator(s): Martin, ~~[illegible]~~ Liddell

Is the area a potential problem area? Yes (No)

Landform: Hillside/Seep Toe of Slope Depressional (Riparian)

Is the site significantly disturbed? Yes (No)

Landscape Position: Flat Undulating Sloping Convex (Concave)

Approximate Slope (%): 2

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 6

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 2012
Applicant: OWN Energy

Sampling Date:
Data Point ID: 2W@Wet II

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black willow	20	Y	OBL
2. Green Ash	15	Y	FACW
3. Basswood	30	Y	FACU
4.			
5			
	65 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	20	N	FACW
2. Reed canary grass	60	Y	FACW
3. Jewelweed	40	Y	FACW
4. Carex sp.	30	Y	FACW
5			
6.			
7.			
8.			
9.			
10.			
	150 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OWN Energy

Sampling Date:

Data Point ID: 2W @ Wet II

Soil Map Unit: PeC Pickney silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-10	10YR 3/2		7.5YR 4/6	MA	C	M	silt loam, layers of sand

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone

Depth (inches): 10

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

Remarks

Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PSS1E
If yes, indicate wetland ID

Stream Inventory Data Form

edr Companies
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Syracuse, New York 13202

274 North Goodman Street
Rochester, New York 14607

Observer:
Name: Martin, Liddell
Weather: HOT!

Project Information:
Name: Copenhagen
Number: 12012 Date: 7-19-13

Stream Name: Unnamed

Regukation Status:
State Protected? ___
Corps Jurisdictional? ✓

Stream Location (nearest road, structure, etc.): near I-4

Adjacent Community: NDF, Ag field

Stream Gradient:
gentle ✓
moderate ___
steep ___

Stream Morphology:
bank width 6 ft
stream width 1 ft
water depth 1 in
bankfull width 20 ft

Channel Substrate:
bed rock ___
boulder ✓
cobble ✓
gravel ✓
sand ✓
silt ✓
clay ___

Instream Conditions:
obscurred bank ✓
well defined bank ✓
eroded/undercut bank ___
overhanging vegetation ✓
vegetated channel ✓
logs/woody debris ✓
riffles and runs ___
deep pools ___
other ___

Stream Flow:
permanent ___
intermittent ✓
ephemeral ___

Photo #s ___
Flag #'s ___

Additional Comments:

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Copenhagen
Sampling Date: 7-19-13
County: Lewis.
Applicant: OWN Energy
State: New York
Community: NDF
Data Point ID (i.e. 2W@Wet. G): 2U@WetII
Nearest Flag to Data Point: II-4

Investigator(s):

Is the area a potential problem area? Yes (No)

Landform: (Hillside/Seep) Toe of Slope Depressional Riparian

Is the site significantly disturbed? Yes (No)

Landscape Position: Flat Undulating (Sloping) Convex Concave

Approximate Slope (%): 2-5

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

No hydrology observed.

Project Number: 12012

Applicant:

Sampling Date: 7-19-13

Data Point ID: 2U@Wet II

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple	20	Y	FACW
2. Black Cherry	15	N	FACU
3. Green Ash	10	N	FACW
4. Bussywood	50	Y	FACU
5			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Buckthorn	30	Y	FAC
2. Gray dogwood	10	Y	FAC
3.			
4.			
5			
	40	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Canada goldenrod	10	Y	FACU
2. Gray dogwood	20	Y	FAC
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	30	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Sparse herb layer

Wet. Veg. Present.

Project Number: 12012

Applicant: OWN Energy.

Sampling Date: 7-19-13

Data Point ID: 2U(a) Wet II

Soil Map Unit: PeC Pickney Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-8	10YR 4/3						sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone

Depth (inches): 8

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

Remarks

No Hydric Soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes ~~No~~
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? ~~Yes No~~
Is the wetland a mapped state wetland? ~~Yes No~~

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 07-18-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@Wet J Nearest Flag to Data Point: JJ-13

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 3

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Wet. Hydro. Present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-19-13

Data Point ID: 1W @ Wet JJ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple	100	Y	FACW
2. American Elm	10	N	FACW
3.			
4.			
5			
	110	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Speckled Alder	20	Y	FACW
2.			
3.			
4.			
5			
	20	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Sensitive Fern	90	Y	FACW
2. Horsetail	30	N	FAC
3. Carex crinata	20	N	FACW
4. Ostrich fern	50	Y	FAC
5 Speckled Alder	20	N	FACW
6.			
7.			
8.			
9.			
10.			
	210	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7-19-13

Data Point ID: 1W@WetJJ

Soil Map Unit: MeB Marcy silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 2/1	100					Muck
4-12	10YR 4/1	100					clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Soil contains organic material throughout, Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1E, PEO/SS1E

If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: **New York**

Sampling Date: 07-19-13
Community: SS

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1U @ Wet J

Nearest Flag to Data Point: JJ-13

Investigator(s): Martin, Liddell

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 0-2

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date:

Data Point ID: 1U@Wet JJ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Cherry	20	Y	FACU
2. Yellow Birch	20	Y	FAC
3. Eastern Cottonwood	20	Y	FAC
4.			
5			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Cherry	20	Y	FACU
2. Honeysuckle	20	Y	FACU
3.			
4.			
5			
	40	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Canada goldenrod	80	Y	FACU
2. Raspberry (common Red)	30	Y	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	110	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 29% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date:

Data Point ID: 1U @ Wet 1B

Soil Map Unit: MeB Marcy silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 4/4	100					Sandy loam
10-	10YR 6/2	100	10YR 6/6	MA	C	M	Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric soil present.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~ If yes, indicate classification _____
Is the wetland a mapped state wetland? ~~Yes No~~ If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: Copenhagen Denmark
County: Lewis
State: New York

Sampling Date: 7-19-13

Applicant: OWA Energy

Community: PSS

Data Point ID (i.e. 2W@Wet. G): ~~[illegible]~~ 12W@WetJJ

Nearest Flag to Data Point: JJ-37

Investigator(s): _____

Landform: Hillside/Seep Toe of Slope **Depressional** Riparian

Landscape Position: Flat Undulating Sloping Convex **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** No

Do Normal Circumstances exist on site? **Yes** No

Is the area a potential problem area? Yes **No**

Is the site significantly disturbed? Yes **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 2
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 6

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012
Applicant: OWN Energy

Sampling Date: 7-19-13
Data Point ID: 2W@Wet JJ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black willow	80	Y	OBL
2. Silky dogwood	30	Y	FACW
3. Yellow birch	10	N	FAC
4. Honeysuckle	20	N	FACU
5			
	140 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carex sp.	50	Y	FACW
2. Late goldenrod	50	Y	FACW
3. Water plantain (American)	30	N	OBL
4. Narrow leaf goldenrod	60	Y	FACW
5			
6.			
7.			
8.			
9.			
10.			
	190 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 7-19-13

Data Point ID: 2W @ Wet JJ

Soil Map Unit: MeA Marcy Silt Loam

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-8	10YR 3/1	100					Muck

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 8

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

Remarks

Hydric soil present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1E / PFO1/SS1E
If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: ~~Copenhagen~~ Denmark

County: Lewis

Sampling Date: 7-18-13

Applicant: OWN Energy

State: New York

Community: SS

Data Point ID (i.e. 2W@Wet. G): 2U@WetU

Nearest Flag to Data Point: dJ-37

Investigator(s): MM, CL

Landform: (Hillside) Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating (Sloping) Convex Concave

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 2

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

No hydrology observed.

Project Number: 12012
Applicant: OWN Energy

Sampling Date:
Data Point ID: 20@Wet JJ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	30	Y	FACU
2. Honeysuckle	20	Y	FACU
3. Yellow birch	10	N	FAC
4.			
5			
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Canada goldenrod	60	Y	FACU
2. Red Clover	20	N	FACU
3. Aster sp.	20	N	FACU
4. Raspberry	20	N	FACU
5 Milkweed	15	N	UPL
6.			
7.			
8.			
9.			
10.			
	135	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:
__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)
[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks
No Wet. Veg.

Project Number: 12012
Applicant: OWN Energy
Soil Map Unit: MeA Marcy Silt Loam.

Sampling Date: 7-18-2013
Data Point ID: 20@ Wet JJ

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16	10YR 3/4						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No Hydric Soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~ If yes, indicate classification _____
Is the wetland a mapped state wetland? ~~Yes No~~ If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 7/25/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PSS
Data Point ID (i.e. 2W@Wet. G): 3W @ II Nearest Flag to Data Point: II-90

Investigator(s): Hecklau, Stubbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

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

Secondary Indicators (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): N/A

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks Wetland Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3W @ IT

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cornus stolonifera	30	Y	FACW
2. Salix spp.	70	Y	OBL
3.			
4.			
5			
	100 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Phalaris arundinacea	80	Y	FACW
2. Onoclea sensibilis	30	Y	FACW
3. Impatiens capensis	20	N	FACW
4. Eupatorium perfoliatum	10	N	FACW
5 Eupatorium maculatum	5	N	FAC
6. Galium palustre	5	N	OBL
7.			
8.			
9.			
10.			
	150 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3W @ II

Soil Map Unit: ~~MeA, MdB, MeB, PeC~~ MeB, PeC, CaB

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/2	100					silty clay
10-16+	10YR 5/2	50	10YR 6/8	C		M	silty clay
			10YR 3/2	MA		M	silty clay
			10YR 4/6	F		M	silty clay

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification ~~PFO1E, PFO1/SS1E, PUBHh~~ PSS1E

If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: New York

Sampling Date: 7/25/13
Community: Hayfield

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 3U @ II

Nearest Flag to Data Point: II-90

Investigator(s): Hecklau, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Active agriculture

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

no hydrological indicators observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3U @ IF

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Galium mollugo	70	Y	UPL
2. Trifolium spp	40	N	FAC
3. Plantago lanceolata	10	N	FACU
4. Fragaria virginiana	30	N	FACU
5 grasses	70	Y	UPL
6.			
7.			
8.			
9.			
10.			
	220	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

hayfield already harvested, grasses likely Dactylis glomerata, Phleum pratense, and Bromus inermis based on unmowed fringe

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3u @ II

Soil Map Unit: ~~MeA, MeB, MdB, PeC~~ PeC, MeB, CaB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16	10YR 4/4	100					silty clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

no hydric soil indicators observed

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~ If yes, indicate classification _____
Is the wetland a mapped state wetland? ~~Yes No~~ If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: **New York**

Sampling Date: 7/25/13
Community: PSS w/stream

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 3W @ JJ

Nearest Flag to Data Point: JJ-1L

Investigator(s): Hecklau, Stebbins, Liddell

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): _____

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

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

Secondary Indicators (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): N/A

Stream Characteristics

Stream type: X Perennial ___ Intermittent

Morphology: Bank Width 4-6' Stream Width 2-4' Water Depth 0-2"

Stream Gradient: Gentle X Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble X Gravel X Sand X Silt X Clay ___

Flow: No Flow ___ Gentle X Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:
- X Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- X Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other _____

Remarks Stream w/ adjacent wetland

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3 w @ JJ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rugosa	50	Y	FACW
2. Salix sp.	50	Y	OBL
3.			
4.			
5			
	100 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Aster umbellatus	10	N	FACW
2. Impatiens capensis	80	Y	FACW
3. Onoclea sensibilis	40	Y	FACW
4. Equisetum arvense	20	N	FAC
5 Phalaris arundinacea	5	N	FACW
6.			
7.			
8.			
9.			
10.			
	155 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present

Project Number: 12012

Sampling Date: 7/25/13

Applicant: OwnEnergy

Data Point ID: 3 W @ JJ

Soil Map Unit: McA, MeB, MdB, PeC

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/1	100					Silty clay
4-10	10YR 4/1	60	10YR 2/1 10YR 4/6	C C		M PL	Silty clay
10-16	Gley2 5/5PB	50	10YR 4/6	C		M	" "
			10YR 7/8	C		M	" "
			10YR 2/1	C		M	" "

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Hydric Soils Present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1E, PFO1/SS1E, PubHh

If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: **New York**

Sampling Date: 7/25/13
Community: Old Field

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 3w@JJ

Nearest Flag to Data Point: JJ-1L

Investigator(s): Hecklau Stebbins Liddell

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): _____

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): N/A
Depth to Water (inches): N/A

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

No hydrological indicators observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3 u @ JJ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Rubus allegheniensis	20	Y	FACU
2. Pinus strobus	5	Y	FACU
3.			
4.			
5			
	25 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus inermis	60	Y	UPL
2. Phleum pratense	20	N	FACU
3. Vicia cracca	20	N	FACU
4. Solidago	50	Y	FACU
5 Trifolium pratense	20	N	FACU
6. Lotus corniculatus	10	N	FACU
7. Potentilla simplex	30	N	FACU
8.			
9.			
10.			
	210 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 3u@JJ

Soil Map Unit:

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 4/4	100					Silty clay

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

no hydric soil indicators observed

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~ If yes, indicate classification _____
Is the wetland a mapped state wetland? ~~Yes No~~ If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark
County: Lewis
State: New York

Sampling Date: 7/25/13
Community: PSS

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1W@KK

Nearest Flag to Data Point: KK-6

Investigator(s): Hecklau, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): ___
Depth to Water (inches): N/A

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks
- Small isolated wetland adjacent to hayfield
- soils moist at surface but not saturated

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1 w/@ KK

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix spp.	75	Y	OBL
2.			
3.			
4.			
5			
	75 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Phalaris arundinacea	50	Y	FACW
2. Sium suave	10	N	OBL
3. purple stem aster	20	N	OBL
4. Impatiens capensis	30	N	FACW
5 Equisetum arvense	40	Y	FAC
6. Carex spp.	20	N	FACW
7. Onoclea sensibilis	20	N	FACW
8.			
9.			
10.			
	190 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: MeB

Sampling Date: 7/25/13

Data Point ID: 1W @ KK

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/1	100					Silty loam
10-16	10YR 5/2		10YR 5/6	C		M	
			7.5YR 4/6	C		M	

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

in lower soil layer, mottles are so abundant they are almost matrix

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 7/25/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Oldfield

Data Point ID (i.e. 2W@Wet. G): 1U @ KK Nearest Flag to Data Point: KK-6

Investigator(s): Hecklau, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): ____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): N/A
Depth to Water (inches): N/A

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ____
Stream Width ____
Water Depth ____

Stream Gradient:
Gentle ____
Moderate ____
Steep ____

Substrate:
Bed Rock ____
Boulder ____
Cobble ____
Gravel ____
Sand ____
Silt ____
Clay ____

Flow:
No Flow ____
Gentle ____
Moderate ____
Heavy ____

Adjacent Community Type: ____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks

no hydrological indicators observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1U @ KK

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Phleum pratense	30	N	FACU
2. Solidago spp.	80	Y	FACU
3. Trifolium pratense	20	N	FACU
4. Asclepias syriaca	10	N	FACU
5 Dactylis glomerata	30	N	FACU
6.			
7.			
8.			
9.			
10.			
	170	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1W @ KK

Soil Map Unit: McB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-14	10YR 3/3	100					silty loam
14-18	10YR 4/3	60	10YR 5/3	MA	RM		silty loam
			7.5YR 4/6	MA	RM		" " "

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric soils present.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~ If yes, indicate classification _____
Is the wetland a mapped state wetland? ~~Yes No~~ If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 7/25/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@LL Nearest Flag to Data Point: LL-20

Investigator(s): Heckman, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

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

Secondary Indicators (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): 12"

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks Wetland Hydrology Present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1W@4

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Phalaris arundinacea	100	Y	FACW
2. Typha latifolia	<5	N	OBL
3. Vicia cracca	<5	N	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	105 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (provide supporting data in remarks)
- Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet Veg Present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1W @ U

Soil Map Unit: PeB, PeC, GaB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-6	10YR 3/1	100					silty clay
6-12	10YR 4/1	100					silty clay
12-16+	10YR 4/1	100					gravelly clay

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification PUBHh
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 7/25/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Old field

Data Point ID (i.e. 2W@Wet. G): 1u@u Nearest Flag to Data Point: u-20

Investigator(s): Heckler, Stubbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): N/A
Depth to Water (inches): N/A

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

no hydrologic indicators observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1 U@ LL

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Dactylis glomerata	20	N	FACU
2. Lolium perenne	60	Y	FACU
3. Vicia cracca	20	N	FACU
4. Arctium sp (minus)	30	N	FACU
5 Phleum pratense	30	N	FACU
6. Stellaria graminea	20	N	UPL
7.			
8.			
9.			
10.			
	180	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wetland Veg.

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: PeB, PeC, GaB

Sampling Date: 7/25/13

Data Point ID: 1 W @ LL

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 4/4	100					Silty loam
10+	gravel						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

no hydric soil indicators observed

Wetland Determination

Hydrophytic Vegetation Present? Yes **No**
Hydric Soil Present? Yes **No**
Wetland Hydrology Present? Yes **No**
Is this Sampling Point Within a Wetland? Yes **No**

Hydrologic Connectivity to Off-site Wetlands? Yes No **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No **N/A**
Is this Wetland Potentially Isolated? Yes No **N/A**

Is the wetland mapped in the NWI? ~~Yes No~~ If yes, indicate classification _____
Is the wetland a mapped state wetland? ~~Yes No~~ If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 7/25/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM / pond

Data Point ID (i.e. 2W@Wet. G): 2W @ LL Nearest Flag to Data Point: LL-56

Investigator(s): Hecklau, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

farm pond - excavated

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ Marl Deposits (B15)
X 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): 4"

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks Wet. Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 2 W @ LL

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Phalaris arundinacea	100	Y	FACW
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. present

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: PeB, PeC, GaB.

Sampling Date: 7/25/13

Data Point ID: 2W@U.

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-20	10YR 4/1	100					gravelly clay

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Pond was excavated; native soil profile disturbed/destroyed.

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Is the wetland mapped in the NWI? **Yes** **No**
Is the wetland a mapped state wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

If yes, indicate classification PUBHh
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 7/25/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Old field

Data Point ID (i.e. 2W@Wet. G): 2u @ LL Nearest Flag to Data Point: LL-56

Investigator(s): Heeklaw, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

embankment/berm along excavated pond

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): N/A
Depth to Water (inches): N/A

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

no hydrological indicators observed.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 2 u @ LL

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Bromus inermis	70	Y	UPL
2. Arctium minus	20	N	FACU
3. Phalaris arundinacea	20	N	FACW
4. Dactylis glomerata	10	N	FACW
5 Lotus corniculatus	10	N	FACU
6. Lolium perenne	20	N	FACU
7.			
8.			
9.			
10.			
	150 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Top of berm next to excavated pond.

All non-native species.

No wet. Veg.

Project Number: 12012

Sampling Date: 7/25/13

Applicant: OwnEnergy

Data Point ID: 2 U @ LL

Soil Map Unit: PeB, PeC, GaB.

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 5/4	100					Silty loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: gravel

Depth (inches): 8"

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

Remarks

no hydric soil indicators observed

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? ~~Yes No~~

If yes, indicate classification _____

Is the wetland a mapped state wetland? ~~Yes No~~

If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Champion Sampling Date: 7/25/13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PSS

Data Point ID (i.e. 2W@Wet. G): 1W@MM Nearest Flag to Data Point: MM-S

Investigator(s): Hecklau, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

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

Secondary Indicators (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): 0"
Depth to Water (inches): N/A

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks Wetland hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1W @ Mm

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cornus amomum	70	Y	FACW
2. Salix spp.	30	Y	OBL
3. Spiraea latifolia	30	Y	FACW
4.			
5			
	130 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carex spp.	80	Y	FACW
2. Bidens gramnifolia	10	N	FAC
3. Onoclea sens. b15	30	Y	FACW
4. Anemone canadensis	5	N	FACW
5 Lysimachia ciliata	5	N	FACW
6.			
7.			
8.			
9.			
10.			
	130 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Hyd. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 4W@MM

Soil Map Unit: BoB, Fu, Ub, NaC, BnA

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 2/1	100					Silty clay
8-16	10YR 2/1	50	10YR 7/3	C	RM	M	" "
			10YR 5/6	C	RM	M	
			10YR 5/3	C	RM	M	

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification PSS1/EM1E, PFO1E

If yes, indicate wetland ID C8

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Champion Sampling Date: 7/25/13
County: Jefferson
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Successional Shrubland
Data Point ID (i.e. 2W@Wet. G): 1U@MM Nearest Flag to Data Point: MM-5

Investigator(s): Hecklau, Stebbins, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): N/A
Depth to Water (inches): N/A

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

no hydrological indicators observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1 u @ mm

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Rubus allegheniensis	100	Y	FACU
2. Rhamnus cathartica	20	Y	FAC
3.			
4.			
5			
	120 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Potentilla simplex		N	FACU
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Sparse herb layer under blackberry

No wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 7/25/13

Data Point ID: 1u @ mm

Soil Map Unit: BoB, Fu, Ub, NaC, BnA

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-14	10YR 3/4	100					silty clayey loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

no hydric soils observed

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? ~~Yes No~~
Is the wetland a mapped state wetland? ~~Yes~~ No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Champion Sampling Date: 07-31-13
County: Jefferson
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: New York Community: PSS
Data Point ID (i.e. 2W@Wet. G): 2W@WetMM Nearest Flag to Data Point: MM-63

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 10

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 2W@WetMm

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Willow	90	Y	OBL
2. Red Osier Dogwood	40	Y	FACW
3.			
4.			
5			
	130 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Joe Pye Weed	20	N	FAC
2. Narrow leaved goldenrod	20	N	FACW
3. Spotted Jewelweed	30	Y	FACW
4. Carex sp.	40	Y	FACW
5			
6.			
7.			
8.			
9.			
10.			
	110 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: DW@Wetmm

Soil Map Unit: NaC

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR3/1	100					clay loam
10-16	10YR3/1	80	10YR5/8	C	C	M	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1E
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Champlan, Sampling Date: 07-31-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

State: New York Community: SS

Data Point ID (i.e. 2W@Wet. G): 2U@WetMM

Nearest Flag to Data Point: MM-63

Investigator(s): M Martin, C. Liddell

Is the area a potential problem area? Yes **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? Yes **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 0-5

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 2U@Wet Mm

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Hawthorn	10	N	FACU
2. Buckthorn	100	Y	FAC
3. Black Cherry	20	N	FACU
4. Honeysuckle	20	N	FACU
5			FACU
	150	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Raspberry	25	Y	FACU
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	25	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 2U@Wetmm

Soil Map Unit: NaC

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16	10YR4/3						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No** If yes, indicate classification _____
Is the wetland a mapped state wetland? **Yes** **No** If yes, indicate wetland ID _____

EDR

Stream Inventory

Observer:
Name: M. Martin C. Liddell
Weather: Sunny/cool, 83°F

Project Information:
Name: Copenhagen
Number: 12012 Date: 07-31-13

Stream Name: unnamed

Stream Location (nearest road, structure, etc.): Wetland NN

Adjacent Community: NDF, Hay Field

Stream Gradient - gentle ✓
- moderate ___
- steep ___

Bank Width: 10

Stream Width: 3

Water Depth: 0

Substrate:
- Bed Rock ___
- Boulder ___
- Cobble ✓
- Gravel ✓
- Sand ___
- Silt ✓
- Clay ___

Instream Cover:
- Undercut bank ✓
- Overhanging vegetation ✓
- Logs/woody debris ✓
- Deep pools ___
- Other ___

Flow:
- Permanent ___
- Intermittent ✓

Photo # ___

Flag #'s ___

Additional Comments: ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Champion
County: Jefferson
State: **New York**

Sampling Date: 07-31-13
Community: PEM

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1W@WetOO

Nearest Flag to Data Point: OO-12

Investigator(s): M Martin, C Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 6
Depth to Water (inches): —

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1 W @ Wet 00

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Joe Pye Weed	100	Y	FAC
2. Late goldenrod	60	Y	FACW
3. Sensitive fern	20	N	FACW
4. Spotted jewelweed	40	N	FACW
5 Green bulrush	10	N	OBL
6. Carex sp.	10	N	FACW
7.			
8.			
9.			
10.			
	240	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1w@WetOO

Soil Map Unit: MdB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-14	10YR 2/2	95	5YR 4/6	MA	C	PL	silt loam
14+	10YR 5/4	95	10YR 6/8	MA	CS	M	sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes** No
Hydric Soil Present? **Yes** No
Wetland Hydrology Present? **Yes** No
Is this Sampling Point Within a Wetland? **Yes** No

Hydrologic Connectivity to Off-site Wetlands? **Yes** No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** No N/A
Is this Wetland Potentially Isolated? Yes **No** N/A

Is the wetland mapped in the NWI? Yes **No**
Is the wetland a mapped state wetland? Yes **No**

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Champion Sampling Date: 07-31-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

State: **New York** Community: SS

Data Point ID (i.e. 2W@Wet. G): 1U@Wet00

Nearest Flag to Data Point: 00-12

Investigator(s): M. Martin, C. Liddell

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 2-5

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ____
Stream Width ____
Water Depth ____

Stream Gradient:
Gentle ____
Moderate ____
Steep ____

Substrate:
Bed Rock ____
Boulder ____
Cobble ____
Gravel ____
Sand ____
Silt ____
Clay ____

Flow:
No Flow ____
Gentle ____
Moderate ____
Heavy ____

Adjacent Community Type: ____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1U@Wet 00

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Viburnum lantanoides	70	Y	UPL
2.			
3.			
4.			
5			
	70	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Canada goldenrod	50	Y	FACU
2. Raspberry	20	Y	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	70	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1U@Wet00

Soil Map Unit: MdB.

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/4	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: bedrock

Depth (inches): 10

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

Remarks No hydric soils.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Champion Sampling Date: 07-31-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

State: **New York** Community: PSS

Data Point ID (i.e. 2W@Wet. G): 1W@WetPP

Nearest Flag to Data Point: PP-6

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___

Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-2

Depth to Sat. Soil (inches): 8

Depth to Water (inches): 8

Stream Characteristics

Stream type:
- ___ Perennial
- ___ Intermittent

Morphology:
- Bank Width ___
- Stream Width ___
- Water Depth ___

Stream Gradient:
- Gentle ___
- Moderate ___
- Steep ___

Substrate:
- Bed Rock ___
- Boulder ___
- Cobble ___
- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Flow:
- No Flow ___
- Gentle ___
- Moderate ___
- Heavy ___

Adjacent Community Type: ___

Instream Conditions:
- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date:

Data Point ID: 1W@WetPP

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Willow	15	N	OBL
2. Buckthorn	20	Y	FAC
3. Green Ash	20	Y	FACW
4. Cottonwood	30	Y	FAC
5 American Elm	10	N	FACW
	95 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	100	Y	FACW
2. Joe Pye Weed	90	Y	FAC
3. Late goldenrod	20	N	FACW
4. Horsetail	10	N	FAC
5 Carex sp.	20	N	FACW
6. Spotted jewelweed	25	N	FACW
7.			
8.			
9.			
10.			
	265 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1W@WetPP

Soil Map Unit: BoA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/2	95	7.5YR 4/6	MA	C	PL	Clay loam
6-14	10YR 5/4	90	7.5YR 4/6	C	C	PL	Clay loam
14+	10YR 3/2	95	7.5YR 4/6	F	C	PL	clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1E / PFO1/SS1E
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: _____ Sampling Date: 07-31-13

County: Jefferson

State: **New York** Community: Corn field

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Data Point ID (i.e. 2W@Wet. G): 1U@WetPP

Nearest Flag to Data Point: PP-6

Investigator(s): M. Martin, C. Liddell

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 2-5

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 14
Depth to Water (inches): —

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1U @ Wet PP

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Corn	100	Y	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 07-31-13

Data Point ID: 1U@WetPD

Soil Map Unit: BoA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/2	100					silt loam
6-16	10YR 5/4	95	10YR 6/8	F	C	CS	sand loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification _____
If yes, indicate wetland ID _____

Stream Inventory

EDR

Observer:
Name: M. Martin, C. Liddell
Weather: _____

Project Information:
Name: Copenhagen
Number: 12012 Date: 08-01-13

Stream Name: Unnamed

Stream Location (nearest road, structure, etc.) :
Wetland QQ

Adjacent Community: PEM, PSS

Stream Gradient - gentle ✓
- moderate ___
- steep ___

Bank Width: 50'

Stream Width: 10-20'

Water Depth: 6-12"

Substrate:
- Bed Rock ___
- Boulder ✓
- Cobble ✓
- Gravel ✓
- Sand ✓
- Silt ✓
- Clay ___

Instream Cover:
- Undercut bank ___
- Overhanging vegetation ✓
- Logs/woody debris ✓
- Deep pools ___
- Other _____

Flow:
- Permanent ✓
- Intermittent ___

Photo # _____

Flag #'s _____

Additional Comments: _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: _____ Sampling Date: 08-01-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@WetQQ Nearest Flag to Data Point: QQ-2

Investigator(s): M.Martin, C.Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ____ Depth of Water (inches): 0-1

Saturated Conditions? Yes ✓ No ____ Depth to Sat. Soil (inches): 0

Depth to Water (inches): -

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: _____

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other _____

Remarks Wetland hydrology Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1W@WetQG

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red osier dogwood	15	Y	FACW
2. Viburnum ~~lantanoides~~	10	Y	UPL
3.			
4.			
5			
	25	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Joe Pye weed	70	Y	FAC
2. Sensitive Fern	50	Y	FACW
3. Blue vervain	20	N	FACW
4. Spotted jewelweed	30	N	FACW
5 Carex sp.	30	N	FACW
6.			
7.			
8.			
9.			
10.			
	200	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Rapid Test for Hydrophytic Vegetation
- [x] Dominance Test >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (provide supporting data in remarks)
- Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1W@WetQR

Soil Map Unit: FuA

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redox Frequency[1]	Redox Type[2]	Redox Loc[3]	Texture, Structure, Other
0-10	10YR 2/1	100					silt loam
10-14	10YR 3/2	90	Gley 1 6/5G	F	CS	M	sandy loam
14+	10YR 3/2	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

- Abundant organic material from 0-10.
- Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PEM1/SS1E, PFO1/SS1E
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Champion. Sampling Date: 08-01-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

State: **New York** Community: SS

Data Point ID (i.e. 2W@Wet. G): 1U@WetQQ

Nearest Flag to Data Point: QQ-2

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1W@Wet QQ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Viburnum lantanum	100	Y	FAC ~~UPL~~
2. Maple-leaved viburnum	25	N	UPL
3. Buckthorn	20	N	FAC
4. Apple	30	N	FAC
5 Hawthorn	20	N	FACU
	195 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Raspberry	70	Y	FACU
2. Canada goldenrod	20	N	FACU
3. Buckthorn	15	N	FAC
4.			
5			
6.			
7.			
8.			
9.			
10.			
	105 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: FU

Sampling Date: 08-01-13

Data Point ID: 1U@WetQQ

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-12	10YR 4/2	100					silt loam
12-14	10YR 4/2	90	10YR 7/4	MA	D	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stone

Depth (inches): 14

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

Remarks No hydric indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: _____ Sampling Date: 08-01-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PSS

Data Point ID (i.e. 2W@Wet. G): 2W@WetQG Nearest Flag to Data Point: QG24

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 6

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks Wet. Hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 2WB Wet QQ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow sp	40	Y	FACW
2. Honeysuckle	10	N	FACU
3. Viburnum lantanum	15	Y	FAC
4.			
5			
	65	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern	100	Y	FACW
2. ~~Willow sp~~			
3. Rice cut grass	20	Y	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	120	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 2WQ WetQQ

Soil Map Unit: BgB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 2/1	60					silt loam
0-8	10YR 6/3	40					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 8

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

Remarks Hydric Soils Present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1/SS1E, PEM1/SS1E
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Sampling Date: 08-01-13

Project Numbe 12012

Town:

County: Jefferson

Community: SS

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

State: New York

Nearest Flag to Data Point: QG-24

Data Point ID (i.e. 2W@Wet. G): 2U@WetQQ

Investigator(s): M. Martin, C. Liddell

Is the area a potential problem area? Yes **No**

Is the site significantly disturbed? Yes **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 2-5

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 2UWetGG

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Cherry	20	Y	FACW
2.			
3.			
4.			
5			
	20 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Hawthorn	15	N	FACU
2. Sugar Maple	25	Y	FACU
3. Buckthorn	25	Y	FAC
4. Viburnum lantanum	50	Y	FAC
5			
	115 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	70	Y	FAC
2. Raspberry	15	N	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 2U@WetQQ

Soil Map Unit: BgB.

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-12	10YR 4/4						silt loam
12-16	10YR 5/6						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stone

Depth (inches): 16

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification ____
If yes, indicate wetland ID ____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Champion
Sampling Date: 08-01-13
County: Jefferson
State: New York
Community: PSS
Applicant: OwnEnergy (Copenhagen Wind farm, LLC)
Nearest Flag to Data Point: RR-59
Data Point ID (i.e. 2W@Wet. G): 1W@Wet RR

Investigator(s): M. Martin, C. Liddell
Is the area a potential problem area? Yes **(No)**
Landform: **Hillside/Seep** **Toe of Slope** **(Depressional)** **Riparian**
Is the site significantly disturbed? Yes **(No)**
Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **(Concave)**
Approximate Slope (%): 0
Are climatic/hydrologic conditions on the site typical for this time of year? **(Yes)** **No**
Do Normal Circumstances exist on site? **(Yes)** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Characteristics

Stream type:
- ___ Perennial
- ___ Intermittent

Morphology:
- Bank Width ___
- Stream Width ___
- Water Depth ___

Stream Gradient:
- Gentle ___
- Moderate ___
- Steep ___

Substrate:
- Bed Rock ___
- Boulder ___
- Cobble ___
- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Flow:
- No Flow ___
- Gentle ___
- Moderate ___
- Heavy ___

Adjacent Community Type: ___

Instream Conditions:
- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Wetland hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1w@Wet RR

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black willow	40	Y	OBL
2. Viburnum lantanum	15	Y	FAC
3. Red osier dogwood	15	Y	FACW
4.			
5			
	70 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Manna Grass	100	Y	OBL
2. Narrow leaf cattail	10	N	OBL
3. Sensitive fern	15	N	FACW
4. Spotted jewelweed	10	N	FACW
5			
6.			
7.			
8.			
9.			
10.			
	135 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1W@WetRR

Soil Map Unit: FU

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/2	100					silt loam
8-12	10YR 6/2	100	10YR 6/8	MA	C	PL	silt loam
12+	10YR 6/2	70	10YR 6/8	MA	C	PL	silt loam
	10YR 3/2	30					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils Present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1/SS1E

If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Champion

Sampling Date: 08-01-13

County: Jefferson

State: New York

Community: SS

Applicant: OwnEnergy (Copenhagen Wind farm, LLC)

Nearest Flag to Data Point: RR-59

Data Point ID (i.e. 2W@Wet. G): 1W@WetRR

Investigator(s): M. Martin, C. Liddell

Is the area a potential problem area? Yes **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? Yes **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 0

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ___
Saturated Conditions? Yes ___ No ___

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1W2 Wet RIR

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black cherry	30	Y	FACU
2.			
3.			
4.			
5			
	30 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Hawthorn	30	Y	FACU
2. Viburnum lantanum	20	Y	FAC
3. Maple leaf viburnum	30	Y	FACU
4.			
5			
	80 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Raspberry	30	Y	FACU
2. Buckthorn	40	Y	FAC
3. Canada goldenrod	20	N	FACU
4. Strawberry	40	Y	FACU
5			
6.			
7.			
8.			
9.			
10.			
	130 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1U@WetRR

Soil Map Unit: Fu

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks No hydric Soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: _____ Sampling Date: 08-01-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: ~~PEM~~ PSS

Data Point ID (i.e. 2W@Wet. G): 1W@WetSS Nearest Flag to Data Point: SS-5

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks
Wetland hydrology present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: 1Wet@Wet SS

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow sp	15	Y	FACW
2. Red osier dogwood	15	Y	FACW
3.			
4.			
5			
	30 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Joe Pye weed ~~[illegible]~~	100	Y	FAC
2. Sensitive fern	40	Y	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	140 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: AmA

Sampling Date: 08-01-13

Data Point ID: TW@WetSS

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-12	10YR 3/1						silt loam
12+	10YR 5/4		10YR 6/8	MA	C	PL	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? **Yes** No
Hydric Soil Present? **Yes** No
Wetland Hydrology Present? **Yes** No
Is this Sampling Point Within a Wetland? **Yes** No

Is the wetland mapped in the NWI? Yes **No**
Is the wetland a mapped state wetland? Yes **No**

Hydrologic Connectivity to Off-site Wetlands? Yes **No** N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes **No** N/A
Is this Wetland Potentially Isolated? **Yes** No N/A

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: _____ Sampling Date: 08-01-13

County: Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: 1U@WetSS

Data Point ID (i.e. 2W@Wet. G): _____ Nearest Flag to Data Point: _____

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width _____ Stream Width _____ Water Depth _____

Stream Gradient: Gentle _____ Moderate _____ Steep _____

Substrate: Bed Rock _____ Boulder _____ Cobble _____ Gravel _____ Sand _____ Silt _____ Clay _____

Flow: No Flow _____ Gentle _____ Moderate _____ Heavy _____

Adjacent Community Type: _____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other _____

Remarks No hydrology observed

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 08-01-13

Data Point ID: IU@WetSS

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Corn	80	Y	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: AmA

Sampling Date: 08-01-13

Data Point ID: 1U@WetSS

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redox Features Frequency[1]	Redox Features Type[2]	Redox Features Loc[3]	Texture, Structure, Other
0-10	10YR 3/3						silt loam
10+	10YR 4/4						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks No hydric soils present.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Champion
Sampling Date: 08-01-13
County: Jefferson
Applicant: OWn Energy
State: New York
Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@WetTT
Nearest Flag to Data Point: TT30

Investigator(s): MM, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 4"

Stream Characteristics

Stream type: X Perennial ___ Intermittent

Morphology: Bank Width 4ft-6ft; Stream Width 4-6ft; Water Depth 1ft

Stream Gradient: Gentle X; Moderate ___; Steep ___

Substrate: Bed Rock ___; Boulder ___; Cobble X; Gravel X; Sand X; Silt ___; Clay ___

Flow: No Flow ___; Gentle X; Moderate ___; Heavy ___

Adjacent Community Type: PEM

Instream Conditions:

- ___ Obscurred Banks
- X Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- X Vegetated Channel
- X Other green algae present

Remarks Wetland hydrology Present

Project Number: 12012

Applicant: Own Energy

Sampling Date: 8/1/13

Data Point ID: 1W@WetTT

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Wet grasses	95%	Y	FACW
2. Jewelweed	10%	N	FACW
3. 7 min. Itch (U. dioca)	30%	N	FAC
4. Narrow leaf Cat-tail	10%	N	OBL
5 Late goldenrod	40%	Y	FACW
6.			
7.			
8.			
9.			
10.			
	185%	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Sampling Date: 05-01-13

Applicant: Own Energy

Data Point ID: IW@Wet TT

Soil Map Unit: Fluvaquents, Udifluvents complex, frequently flooded.

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6"	10YR 3/2	95	10YR 5/8	MA	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 6"

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

Remarks

Hydric Soils present.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No

If yes, indicate classification PEM1E

Is the wetland a mapped state wetland? Yes (No)

If yes, indicate wetland ID ___

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: Champion

Sampling Date: 8/01/13

County: Jefferson

Applicant: OWN energy

State: New York

Community: Old field

Data Point ID (i.e. 2W@Wet. G): 1U@Wet TT

Nearest Flag to Data Point: TT30

Investigator(s): MM, CL

Landform: **Hillside/Seep** Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating **Sloping** Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** No

Do Normal Circumstances exist on site? **Yes** No

Is the area a potential problem area? Yes **No**

Is the site significantly disturbed? **Yes** No Mowed / roadside

Approximate Slope (%): 200

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ____
Stream Width ____
Water Depth ____

Stream Gradient:
Gentle ____
Moderate ____
Steep ____

Substrate:
Bed Rock ____
Boulder ____
Cobble ____
Gravel ____
Sand ____
Silt ____
Clay ____

Flow:
No Flow ____
Gentle ____
Moderate ____
Heavy ____

Adjacent Community Type: ____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks No hydrology present

Project Number: 12012

Applicant: OWN energy

Sampling Date: 8/1/13

Data Point ID: 1W @ Wet TT

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. ~~Aster sp.~~	~~40%~~		
2. Hawthorn	20%	Y	FACU
3. Buckthorn	20%	Y	FAC
4. Cherry	10%	N	FACU
5 Choke cherry	10%	N	FACU
	60%	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Upl. grasses	90%	Y	FACU
2. Milkweed	10%	N	UPL
3. Aster sp.	90%	Y	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	190%	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Mowed Roadside

Project Number: 12012

Applicant: OWn energy

Sampling Date: 8/1/13

Data Point ID: 1W@WetTT

Soil Map Unit: Fluvaquents - Udifluvents Complex, frequently flooded

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6"	10YR 4/3	100					Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: Stones/r-side

Depth (inches): 6"

Remarks

No hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification ___
If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Champion
Sampling Date: 8/1/13
County: Jefferson
Applicant: OWN Energy
State: New York
Community: PEM / IC
Data Point ID (i.e. 2W@Wet. G): 1W@ Wet III
Nearest Flag to Data Point: III 4

Investigator(s): MM, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2%

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

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

Secondary Indicators (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ~~X~~ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): Ø"
Depth to Sat. Soil (inches): Ø"
Depth to Water (inches): Ø"

Stream Characteristics

Stream type: ___ Perennial, X Intermittent

Morphology: Bank Width 2 ft; Stream Width 3 ft; Water Depth 6"

Stream Gradient: Gentle ___; Moderate ___; Steep ___

Substrate: Bed Rock ___; Boulder ___; Cobble ___; Gravel ___; Sand ___; Silt ___; Clay ___

Flow: No Flow ___; Gentle ___; Moderate ___; Heavy ___

Adjacent Community Type: PEM

Instream Conditions:

- X Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- X Vegetated Channel
- X Other Algal Crust/mat

Remarks Hydrology present

Project Number: 12012
Applicant: Own Energy

Sampling Date: 08-01-13
Data Point ID: 1W@Wet Ill

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Narrow leaf cat-tail	60%	N	OBL
2. Willow sp.	10%	N	FACW
3. Wet grasses	90%	Y	FACW
4. late goldenrod	40%	N	FACW
5 mint (Marsh mint)	60%	N	FACW
6. Joe-Pye Weed	20%	N	FAC
7. Reed Canary Grass	30%	N	FACW
8.			
9.			
10.			
	310	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 08-01-13

Data Point ID: 1W @ Wet UU

Soil Map Unit: Fluvaquents-Udifluvents Complex, frequently flooded

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8"	10YR 3/1	100%					Sandy Loam
8"-+	10YR 4/1	90%	10YR 4/6	MA	C	M	Sandy Loam/Organ

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? Yes (No) N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes (No) N/A
Is this Wetland Potentially Isolated? (Yes) No N/A

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: _____ Sampling Date: 8/1/13
County: Jefferson
Applicant: Own Energy
State: **New York** Community: Roadside (Rt. 163)
Data Point ID (i.e. 2W@Wet. G): 1W@ WetW
Nearest Flag to Data Point: W4

Investigator(s): MM, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** Mowed Roadside.

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: _____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other _____

Remarks

No wetland hydrology
Mowed Roadside

Project Number: 12012
Applicant: Own Energy

Sampling Date: 8/1/13
Data Point ID: 1W@W4 W1

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Aster sp.	30%	N	FACW
2. Vetch (cow)	60%	Y	FACW
3. Milkweed	15%	N	FACW
4. Queen Ann's Lace	20%	N	UPL
5 UPL grasses	90%	Y	FACW
6.			
7.			
8.			
9.			
10.			
	215 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Mowed Roadside

Project Number: 12012

Applicant: Own Energy

Sampling Date: 8-1-13

Data Point ID: 1d @ wetlands

Soil Map Unit: Fluvaquents-udifluvents, complex, frequently flooded

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10"	10YR 4/3	100					Sandy Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stones / r-side

Depth (inches): 10"

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

Remarks

No Hydric soil indicators.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

edr Companies
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: Champion

County: Jefferson

State: New York

Sampling Date: 08-02-13

Community: PEM

Applicant: Own Energy

Nearest Flag to Data Point: VV-54

Data Point ID (i.e. 2W@Wet. G): 1W@WetVV

Investigator(s): M. Martin, C. Liddell

Is the area a potential problem area? Yes **No**

Is the site significantly disturbed? Yes **No**

Approximate Slope (%): 0

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓

Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —

Depth to Sat. Soil (inches): 0

Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012
Applicant: Ovra Energy

Sampling Date: 08-02-13
Data Point ID: 1W@WetVV

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Boneset	70	Y	FACW
2. Blue Vervain	40	N	FACW
3. Carex sp.	50	N	FACW
4. Juncus sp.	50	N	FACW
5 Late goldenrod	30	N	FACW
6. Wet grasses	30	N	FACW
7. Narrow Leaf goldenrod	20	N	FACW
8.			
9.			
10.			
	290	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012 Sampling Date: 08-02-13

Applicant: Own Energy Data Point ID: 1W@WetVV

Soil Map Unit: New Stead Silt Loam

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-14	10YR 2/2	100	7.5YR 4/6	MA	C	PL	clay loam
14-16	10YR 2/2	60	7.5YR 4/6				clay loam
	10YR 6/3	40					clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification PEM1/UBFh
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Champion
Sampling Date: 08-02-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: Old field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet VV
Nearest Flag to Data Point: VV-54

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 12012
Applicant: Own Energy

Sampling Date: 08-02-13
Data Point ID: 1U@WetVV

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Canada goldenrod	40	N	FACU
2. Burr dock	20	N	FACU
3. Thistle (Mountain)(Field)	20	N	UPL
4. Upland grasse	90	Y	FACU
5 Queen Anne's Lace	30	N	UPL
6. Aster sp.	20	N	FACU
7. Timothy	20	N	FACU
8.			
9.			
10.			
	240	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012 Sampling Date: 08-02-13

Applicant: Ovi Energy Data Point ID: 1U@Wet VV

Soil Map Unit: Newstead Silt Loam.

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/3	100					silt loam
8-14	10YR 3/3		10YR 5/6	MA	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone

Depth (inches): 14

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 9/4/2013
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@WetWW Nearest Flag to Data Point: WW-23

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
X Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ 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 (min. - 2 required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
X Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
X Stunted or Stressed Plants (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes X No ___

Depth of Water (inches): 0"
Depth to Sat. Soil (inches): 2"
Depth to Water (inches): 0"

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks – ~~Hydrology~~ Wetland hydrology indicators present.
– Hummocky microtopography.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 9/4/2013

Data Point ID: IW @ Wet WW

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple	50%	Y	FAC
2. Green Ash	45%	Y	FACW
3. Beech (American)	10%	N	FACU
4. Hickory (Shagbark)	10%	N	FACU
5			
	115	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple	40%	Y	FAC
2. Green Ash	50%	Y	FACW
3. Hickory	10%	N	FACU
4. Beech	10%	N	FACU
5			
	110	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ostrich fern	65%	Y	FACW
2. Jewelweed	35%	Y	FACW
3. sensitive fern	20%	N	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	120	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Vitis sp	5%	Y	FAC
2.			
3.			
4.			
5			
	5	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

~~Alnus successful~~

Moss successful in area.

Project Number: 12012 Sampling Date: 9/4/13

Applicant: OwnEnergy Data Point ID: IW@wetWW

Soil Map Unit: Galway Silt Loam, 3 to 8% slopes.

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-8"	10YR 2/1	100					silt loam
8"+	7.5YR 4/4	100	10YR 3/2	MA	RM	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks Hydric soils present.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag Yes
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 9/4/2013
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: NDF
Data Point ID (i.e. 2W@Wet. G): 1U @ Wet WW Nearest Flag to Data Point: 23WW

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 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)

N/A

Secondary Indicators (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	____	Gentle	____	Bed Rock	____	Sand	____	No Flow	____
___ Intermittent	Stream Width	____	Moderate	____	Boulder	____	Silt	____	Gentle	____
	Water Depth	____	Steep	____	Cobble	____	Clay	____	Moderate	____
					Gravel	____			Heavy	____

Adjacent Community Type: ____ N/A

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks No hydrology present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 9/4/13

Data Point ID : 1U @ Wet WW

1U @ Wet WW

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. A. Beech	40%	Y	FACU
2. Sugar Maple	40%	Y	FACU
3. Hickory	20%	N	FACU
4.			
5			
	100%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. A. Beech	30%	Y	FACU
2. Sugar Maple	30%	Y	FACU
3. Hickory	10%	N	FACU
4.			
5			
	70%	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Wood fern	10%	N	FACU
2. Gooseberry	25%	Y	FACU
3. Christmas Fern	5%	N	FACU
4. Poison Ivy	30%	Y	FACU
5			
6.			
7.			
8.			
9.			
10.			
	70	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

N/A

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

- Limited Veg. in Understory
- Closed Canopy

Project Number: 12012

Sampling Date: 9/4/13

Applicant: OwnEnergy

Data Point ID: 1U @ WetWW

Soil Map Unit: Galway Silt Loam, 3 to 8% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-6"	7.5YR 3/3						Sandy loam
6"-10"	7.5YR 3/4						sandy loam
10"+	7.5YR 4/6						Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks
- Roots innervated in soil strata
- No hydric soil indicators.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/27/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: New York Community: PEM / PSS
Data Point ID (i.e. 2W@Wet. G): 1WC Wet 3B Nearest Flag to Data Point: 3B-18

Investigator(s): BS, AD

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/27/13

Data Point ID: 1W @ wet 3B

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow	60	Y	FACW
2.			
3.			
4.			
5			
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Reed Canary Grass	80	Y	FACW
2. Late Goldenrod	5	N	FAC
3. Joe-pye weed	5	N	FAC
4.			
5			
6.			
7.			
8.			
9.			
10.			
	90	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland Veg. dominant.

Project Number: 12012 Sampling Date: 8/27/13

Applicant: OwnEnergy Data Point ID: IW@Wet 3B

Soil Map Unit: KBA-

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-6	10yr 3/2						Silt Loam
6-12	10yr 3/1		7.5yr 4/6	F	C	PL	Silt Loam
12-16	10yr 3/1		7.5yr 4/6	M	C	PL	Silt Loam
16+	7.5yr 7/3		7.5yr 5/6	C	C	M	Silty Clay Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag yes
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No** If yes, indicate classification PEM1F
Is the wetland a mapped state wetland? **Yes** **No** If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/27/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: New York Community: Upland Ag (Hay) Field
Data Point ID (i.e. 2W@Wet. G): 1UC wet 3B Nearest Flag to Data Point: 3B - 18

Investigator(s): BS | AD

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:
Perennial	Bank Width	____	Gentle	____	Bed Rock	____	Sand	____	No Flow ____
Intermittent	Stream Width	____	Moderate	____	Boulder	____	Silt	____	Gentle ____
	Water Depth	____	Steep	____	Cobble	____	Clay	____	Moderate ____
					Gravel	____			Heavy ____

Adjacent Community Type: ____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other ____

Remarks
- Hay Field adjacent to wetland
- No wetl. hydrology.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/27/13

Data Point ID: 1U @ wet 33

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Perennial Rye Grass	80		FACU ~~UPL~~
2. Red Fescue	10		FACU
3. Timothy	5		~~UPL~~ FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50% N/A

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wet. Veg.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/27/13

Data Point ID: 10 @ wet 3B

Soil Map Unit: KBA

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-6	10yr 4/3		10yr 5/6	F	C	PL	Sandy Loam
6+	10yr 3/3		7.5yr 4/4	F	C	PL	" "

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag No
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/27/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W @ Wet 3C Nearest Flag to Data Point: 3C3

Investigator(s): BS, AD

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 2
Depth to Water (inches): 10

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Sample taken in wetland adjacent to the ag (hay) field. Sample taken in area of proposed collection line x-ing.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1W @ Wet 3c

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Carex Sp.	10%	N	FACW
2. Reed Canary grass	60%	Y	FACW
3. Blue Vervain	5%	N	FACW
4. scirpus	25%	Y	OBL
5 late golden Rod	10%	N	FACW
6. Cat tail	10%	N	OBL
7.			
8.			
9.			
10.			
	120	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Hydrophytic vegetation dominant.

Project Number: 12012

Sampling Date: 8/27/2013

Applicant: OwnEnergy

Data Point ID: -1W @ 3C

Soil Map Unit: FaA, MgB, HcA

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-6	10yr 2/2						Silt Loam
6+	10yr 3/1		10yr 5/8	M	C	M+PL	Clay Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag Yes
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/27/2013

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Upland Alg (Hay)

Data Point ID (i.e. 2W@Wet. G): 1U@ Wet 3G Nearest Flag to Data Point: 1U @ Wet 3C 3-C3

Investigator(s): BS, AD

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: ____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other ____

Remarks No wet. hydrology present.

27

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/~~22~~/13

Data Point ID : UPwet 3C

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Old field Linguefoil	25%	Y	FACU
2. perinial rye grass	70%	Y	FACU
3. red fescue	10%	N	FACU
4. Clover	10%	N	FACU
5 Dandelion	5%	N	FAC
6.			
7.			
8.			
9.			
10.			
	120	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators: N/A

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Hay field and upland sample point was recently mowed.

- Wet. Veg. not present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/27/13

Data Point ID: 1U @ wet 3C

Soil Map Unit: MgB, HcA, FaA, IaA

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-6	10yr 3/2		10yr 5/6	F	C	PL	Silt Loam
6+	10yr 4/1		7.5yr 4/6	MA	C	PL	Clay Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks Sample point taken in depressional area in hay field. Hydrology and hydric soils present, but sample point taken in a hay field with dominant upland vegetation.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag N/A
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification ___
If yes, indicate wetland ID ___

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/28/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@wet 3D Nearest Flag to Data Point: 3D-1

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
✓ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 2
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width		Gentle		Bed Rock		Sand		No Flow	
___ Intermittent	Stream Width		Moderate		Boulder		Silt		Gentle	
	Water Depth		Steep		Cobble		Clay		Moderate	
					Gravel				Heavy	

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Data point taken adjacent to state Hwy 12

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1W @ Wet 3D

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Red Canary Grass	70	Y	FACW
2. Jewel weed	10	N	FAC
3. Boneset	5	N	FACW
4. Late Goldenrod	10	N	FACW
5			
6.			
7.			
8.			
9.			
10.			
	95	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1W @ wet 3D

Soil Map Unit: IaA

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-6	10YR 3/2						Silt loam
6+	10YR 3/1		10YR 5/6	F	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks

Culvert under rd b/w flags 3D-1 and 3D-30

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag Yes
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/28/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Upland - rd side

Data Point ID (i.e. 2W@Wet. G): 1U @ wet 3D Nearest Flag to Data Point: 3D - 1

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
Perennial	Bank Width		Gentle		Bed Rock		Sand		No Flow	
Intermittent	Stream Width		Moderate		Boulder		Silt		Gentle	
	Water Depth		Steep		Cobble		Clay		Moderate	
					Gravel				Heavy	

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Immediately adjacent to State Rte 12. Roadside shoulder. Sample point is disturbed due to road shoulder.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1U @ wet 3D

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Perennial Ryegrass	40	Y	FACU
2. Clover	25	Y	FACU
3. Birds foot trefoil	15	N	FACU
4. tall field cinquefoil	10	N	FACU
5 Buttercup	10	N	FAC
6. Reed Canary Grass	10	N	FACW
7.			
8.			
9.			
10.			
	110 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators: N/A

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No dominant Wetland Vegetation.

Project Number: 12012 Sampling Date: 8/28/13

Applicant: OwnEnergy Data Point ID : 1U @ wet 3D

Soil Map Unit: IaA

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]
0-4	10 YR 4/3					
4-10	10 YR 4/2					

Sandy loam

Sandy loam (w/ gravel)

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Refusal

Rock/Gravel

~ 10 inches

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

Remarks

Soil sample taken b/w wetland and road shoulder

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/28/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM/Perennial Stream

Data Point ID (i.e. 2W@Wet. G): 1W @ 3E Nearest Flag to Data Point: 3E - 5

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
✓ Perennial	Bank Width	3-6'	Gentle	✓	Bed Rock	✓	Sand		No Flow	
___ Intermittent	Stream Width	1-3'	Moderate		Boulder		Silt	✓	Gentle	
	Water Depth	3-6"	Steep		Cobble		Clay		Moderate	✓
					Gravel				Heavy	

Adjacent Community Type: PEM + Ag (Corn) Field

Instream Conditions:

- ✓ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ✓ Overhanging Vegetation
- ✓ Vegetated Channel
- ___ Other ___

Remarks PEM/Perennial Stream cutting through Corn Field.
18" CMP connects wetland/stream underneath farm road.
Minnows (possibly trout) observed.
Frogs present as well.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1W @ wet 3E

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Polygonum	60	Y	FAC
2. Blue Vervain	5	N	FACW
3. Boneset	20	N	FACW
4. Jewelweed	15	N	FACW
5 Jap grass weed	10	N	FAC
6.			
7.			
8.			
9.			
10.			
	110	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland veg. present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: IWP3E

Soil Map Unit: MaA

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Soil Texture
0-6	10YR 3/2						Silt loam
6-12	10YR 3/1						Silt loam
12+	10YR 3/1						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks Hydric Soil indicators present

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag NA
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No**
Is the wetland a mapped state wetland? **Yes** **No**

If yes, indicate classification PEM1E
If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/28/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Upland; Edge of Farm Rd; Rd
Data Point ID (i.e. 2W@Wet. G): 1UP 3E Nearest Flag to Data Point: 3E-5

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** (Yes) **No**

Do Normal Circumstances exist on site? **Yes** (No) - Farm Rd

Is the area a potential problem area? **Yes** (No)

Is the site significantly disturbed? (Yes) **No** Farm Rd

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Upland point is essentially on existing Farm road (rock)

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID : 1U 3E

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Birds foot trefoil	10	N	FACU
2. Field thistle	10	N	FACU
3. Canada goldenrod	20	Y	FACU
4. Red Clover	30	Y	FACU
5 White Clover	30	Y	FACU
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Edge of Road; Farm Road limited vegetation.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID : IUPunt 3E

Soil Map Unit: MaA

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Refusal

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

Remarks

Unable to take soil sample due to farm road/gravel/rock.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag N/A
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/28/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Stream (Deer River) / Seep

Data Point ID (i.e. 2W@Wet. G): 1W@wet 3G Nearest Flag to Data Point: 3G-2

↳ much of wetland/River delineated w/ aerial due to extreme steep slopes

Investigator(s): BS/AM

Is the area a potential problem area? **Yes** **No**

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Is the site significantly disturbed? **Yes** **No**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Approximate Slope (%): 60%

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 1
Depth to Water (inches): 3

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
✓ Perennial	Bank Width		Gentle		Bed Rock	✓	Sand	✓	No Flow	
___ Intermittent	Stream Width		Moderate		Boulder		Silt	✓	Gentle	
	Water Depth		Steep		Cobble	✓	Clay		Moderate	✓
					Gravel				Heavy	

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
✓ Well Defined Banks
✓ Eroded/Undercut Bank
___ Deep Pools
✓ Riffles & Pools
✓ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks Wetland data represents the Deer River and associated PEM/hillside seep near location of proposed overhead transmission line.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1W Quet 3G

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	40	Y	FACW
2. Red Maple	20	Y	FACW
3.			
4.			
5			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. ~~Gra~~ Garlic Mustard	10	N	FACU
2. Jewelweed	50	Y	FACW
3. Sensitive Fern	20	Y	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Data taken at hillside seep adjacent to Deer River.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: IW @ wet 36

Soil Map Unit: HeA, HbB, HbD, W

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-4	10YR 3/1						Silt loam
4-10	10YR 3/2						Silt loam
10+	10YR 3/1		7.5YR 5/6	F	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes** No
Hydric Soil Present? **Yes** No
Wetland Hydrology Present? **Yes** No
Is this Sampling Point Within a Wetland? **Yes** No

Hydrologic Connectivity to Off-site Wetlands? **Yes** No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag Yes
Is this Wetland Potentially Isolated? Yes **No** N/A

Is the wetland mapped in the NWI? **Yes** No
Is the wetland a mapped state wetland? Yes **No**

If yes, indicate classification Deer river
If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: i2012 Town: Denmark Sampling Date: 8/28/13
County: Lewis
Applicant: OWN Energy State: New York Community: PEM/Peren. Stream

Data Point ID (i.e. 2W@Wet. G): 1W @ wet 3E Nearest Flag to Data Point: 3E - 3

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0 - 2

→ Wetland located to adjacent farm rd. stone.

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 6 - 8"
Depth to Sat. Soil (inches): 0
Depth to Water (inches): N/A

In stream portion

Stream Characteristics

Stream type: ✓ Perennial ___ Intermittent

Morphology: Bank Width 5-7' Stream Width 4-6' Water Depth ___

Stream Gradient: Gentle ✓ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ✓ Sand ___ Silt ✓ Clay ___

Flow: No Flow ✓ Gentle ✓ Moderate ___ Heavy ___ Both

Adjacent Community Type: PEM. Corn in upland adjacent.

Instream Conditions:

- ✓ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ✓ Overhanging Vegetation - Emergent
- ___ Vegetated Channel
- ___ Other ___

Remarks Minnows/small fish observed in stream.
PEM/Stream (perennial) crossed by farm lane.
Class "C" NYS Stream. Unprotected.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 8/28/13

Data Point ID: 1W Pwet ~~E~~ 3E

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Boneset	30	Y	OBL
2. Jewelweed	20	Y	FACW
3. Purple loosestrife	5	N	FACW
4. Joe-pye weed	5	N	FACW
5 Reed canary grass	25	Y	FACW
6. Rice cut grass	10	N	FACW
7. Carex sp.	15	Y	FACW/OBL
8. Late goldenrod	5	N	FACW
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

PEM vegetation dominant

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 8/28/13

Data Point ID: 1WC wet 3E

Soil Map Unit: MaA

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 2/1	100					Silt loam
6-18	10YR 6/1	70	10YR 6/8	MA	C	M	Silty clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soil indicators present.

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? ~~Yes~~ ~~No~~ YES If yes, indicate classification PEM1E

Is the wetland a mapped state wetland? ~~Yes~~ ~~No~~ NO If yes, indicate wetland ID N/A

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 2012 Town: Denmark Sampling Date: 8/28/13
County: Lewis
Applicant: OWN Energy State: New York Community: UPLAND AG FIELD (CORN)
Data Point ID (i.e. 2W@Wet. G): IV @ wet 3E Nearest Flag to Data Point: 3E-3

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** CORN FIELD

Approximate Slope (%): 2%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	____	Gentle	____	Bed Rock	____	Sand	____	No Flow	____
___ Intermittent	Stream Width	____	Moderate	____	Boulder	____	Silt	____	Gentle	____
	Water Depth	____	Steep	____	Cobble	____	Clay	____	Moderate	____
					Gravel	____			Heavy	____

Adjacent Community Type: ____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks UPLAND / AG FIELD - CORN

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 8/28/13

Data Point ID : INPwet3E

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. CORN	70	Y	NL
2. Old Field cinquefoil	5	N	FACU
3. Field thistle	5	N	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

CORN FIELD

ject Number: 12012

plicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: 1U @ wet 3E

Soil Map Unit: MaA

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]
0-18	7.5 YR 4/3	100				

Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks

Upland/Ag Field. Planted Corn. Tilled Soils. Mixing layers apparent.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag N/A
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification ___
If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 2012 Town: _____ Sampling Date: 8/28/13
County: _____
Applicant: OWN Energy State: New York Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W @ wet 3F Nearest Flag to Data Point: 3F-3

Investigator(s): Schwerkenbacher, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-1

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): N/A
Depth to Sat. Soil (inches): 1
Depth to Water (inches): 8

Stream Characteristics

Stream type: Perennial; ✓ Intermittent

Morphology: Bank Width 1-3'; Stream Width 1-2'; Water Depth 4-6"

Stream Gradient: Gentle ✓; Moderate ___; Steep ___

Substrate: Bed Rock ___; Boulder ___; Cobble ___; Gravel ✓; Sand ✓; Silt ___; Clay ___

Flow: No Flow ✓; Gentle ✓; Moderate ___; Heavy ___

Adjacent Community Type: _____

Instream Conditions:

- ✓ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ✓ Overhanging Vegetation PEM
- ✓ Vegetated Channel partially
- ___ Other _____

Remarks Frogs

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 8/28/13

Data Point ID: 1W @ wet 3F

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Broad leaf cattail	30	Y	OBL
2. Boneset	15	N	OBL
3. Reed Canary Grass	40	Y	FACW
4. Joe-pye weed	10	N	FACW
5 Blue vervain	10	N	OBL
6. Carex sp	25	Y	FACW/OBL
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland veg dominant

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 8/28/13

Data Point ID: 1WQ unit 3F

Soil Map Unit: Ma A

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/2						Silt loam
6+	10YR 3/2		10YR 5/2	F	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification PSS/PFO1E - classification seems wrong
If yes, indicate wetland ID N/A

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8/28/13

County: Lewis

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: UPLAND/AG (CORN)

Data Point ID (i.e. 2W@Wet. G): 1U @ wet 3F Nearest Flag to Data Point: 3F - ~~2~~ 3

Investigator(s): Schwekenbauer / Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type: Perennial / Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: ____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other ____

Remarks

UPLAND/AG FIELD (CORN)

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID : 1U @ unit 3F

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. CORN	100	Y	NL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 8/28/13

Data Point ID: IU Point 3F

Soil Map Unit: MaA

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]
0-16+	10YR 4/3					

Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks Tilled/Mixed Soils

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag N/A
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

Stream Inventory

EDR

Observer:
Name: Schwabenbauer
Weather: 80°; Sunny

Project Information:
Name: Copenhagen Wind
Number: 12012 Date: 8/28/13

Stream Name: Deer River (EDR wetland 36)

Stream Location (nearest road, structure, etc.) :
Deer River - near proposed overhead x-ing
Adjacent Community: PFO

Stream Gradient - gentle ___
- moderate ✓
- steep ___

Bank Width: 30 - 50'

Stream Width: 25 - 45

Water Depth: 1" - 12"

Substrate:
- Bed Rock ✓
- Boulder ✓
- Cobble ✓

} Primarily

- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Instream Cover:
- Undercut bank ✓
- Overhanging vegetation ✓
- Logs/woody debris ✓
- Deep pools ___
- Other ___

Flow:
- Permanent ✓
- Intermittent ___

Photo # See photos in wet. delineation report
Flag #'s ___

Additional Comments: ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
County: Lewis
Sampling Date: 8/29/13
Applicant: OwnEnergy (Copenhagen Wi
State: New York
Community: PSS and PEM
Data Point ID (i.e. 2W@Wet. G): 1W @ wet 3H
Nearest Flag to Data Point: 3H-8 w/ Perennial Channel

Investigator(s): Schwabenbauer / Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 4
Depth to Water (inches): 10

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
✓ Perennial	Bank Width	3-5'	Gentle	✓	Bed Rock		Sand		No Flow	
___ Intermittent	Stream Width	2-4'	Moderate		Boulder		Silt	✓	Gentle	✓
	Water Depth	2-4"	Steep		Cobble	✓	Clay		Moderate	
					Gravel	✓			Heavy	

Adjacent Community Type: ___

Instream Conditions:

- ✓ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ✓ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks PEM/PSS w/ narrow perennial channel (Class C DEC Stream)

Project Number: 12012

Applicant: OE

Sampling Date: 8/29/13

Data Point ID: LW Quad 3#

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Osier dogwood	15	N	FACW
2. Silky dogwood	15	N	FACW
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Jewelweed	40	Y	FACW
2. Joe-pye weed	30	Y	FACW
3. late goldenrod	15	N	FACW
4. Rice cutgrass	25	Y	FACW
5 Ostrich Fern	10	N	FACW
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Dwn Energy / Copenhagen Wind LLC

Soil Map Unit: NFD

Sampling Date: 8/29/13

Data Point ID: 1W @ wet 3H

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/2						Silt loam
4+	10YR 3/1		10YR 5/6	F	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: Rock / Gravel

Depth (inches): 10

Remarks

Class C DEC Stream w/in wetland

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 8/29/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wi
State: New York
Community: Old field / Shrubland
Data Point ID (i.e. 2W@Wet. G): 1U @ wet 3H
Nearest Flag to Data Point: 3H-8

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** Logged

Approximate Slope (%): 10

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ____
Stream Width ____
Water Depth ____

Stream Gradient:
Gentle ____
Moderate ____
Steep ____

Substrate:
Bed Rock ____
Boulder ____
Cobble ____
Gravel ____
Sand ____
Silt ____
Clay ____

Flow:
No Flow ____
Gentle ____
Moderate ____
Heavy ____

Adjacent Community Type: ____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks Upland adjacent to 3H-8.

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/29/13

Data Point ID: 1W @ wet 3H

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Canada goldenrod	60	FACU	Y
2. Multiflora rose	20	N	FACU
3. Common thistle	5	N	FACU
4. Bracken fern	10	N	FACU
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/29/13

Data Point ID: 10 @ wet 3H

Soil Map Unit: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16+	10YR 4/3						Sandy silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No hydric soil indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wi State: New York Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W @ wet 3I Nearest Flag to Data Point: 3I - 6

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
✓ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 6
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: IW Point 3 F

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	30	N	FACW
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Osier Dogwood	30	Y	FACW
2. Silky Dogwood	30	Y	↓
3. Willow	35	Y	↓
4. Green Ash	20	N	
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Jewelweed	15	N	FACW
2. Sensitive Fern	30	Y	FACW
3. Late goldenrod	15	N	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: 1W @ wet 3 I

Soil Map Unit: TbB

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/1						Silt loam
6+	10YR 2/1		10YR 5/5	MA	C	PL	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Hydric Soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 8/30/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wi
State: **New York**
Community: Shoblaw
Data Point ID (i.e. 2W@Wet. G): 1U @ wet 3I
Nearest Flag to Data Point: 3I-6

Investigator(s): Schwochenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ~~**No**~~

Do Normal Circumstances exist on site? **Yes** ~~**No**~~

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-3

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ___
Saturated Conditions? Yes ___ No ___

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ___
Stream Width ___
Water Depth ___

Stream Gradient:
Gentle ___
Moderate ___
Steep ___

Substrate:
Bed Rock ___
Boulder ___
Cobble ___
Gravel ___
Sand ___
Silt ___
Clay ___

Flow:
No Flow ___
Gentle ___
Moderate ___
Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: 1U @ wet 3I

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	40	Y	FACU
2. Apple	25	N	FACU
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Multiflora Rose	35	Y	FACU
2. Canada goldenrod	40	Y	FACU
3. Orchard grass	20	N	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: WQ wet 3I

Soil Map Unit: _____

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
~~[illegible]~~							
0-6	10YR 4/4						Silt loam
6+	10YR 4/3						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wi State: **New York** Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W Point 35 Nearest Flag to Data Point: 3J-23

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 4
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: 1W @ wet 35

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	50	Y	FACW
2. Silver Maple	25	N	FACW
3. Red Maple	25	N	FAC
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Green Ash	30	Y	FACW
2. Maple (Red or Silver)	15	N	FACW/FAC
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Sensitive Fern	45	Y	FACW
2. Rice cut grass	10	N	
3. Sedges	10	N	
4. Joe-pye weed	5	N	
5 Jewelweed	35	Y	
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: 1W Pnt T 3J

Soil Map Unit: TbB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 2/2						Silt loam
8+	10YR 2/1	70					Silty Clay loam
		30	10YR 5/1	C	D	M	↓
			10YR 5/6	MA	C	PL+M	

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks Hydric soils ~~dominant~~ evident

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wi State: **New York** Community: NDF
Data Point ID (i.e. 2W@Wet. G): 1U @ wet 35 Nearest Flag to Data Point: 35-23

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width _____ Stream Width _____ Water Depth _____

Stream Gradient: Gentle _____ Moderate _____ Steep _____

Substrate: Bed Rock _____ Boulder _____ Cobble _____ Gravel _____ Sand _____ Silt _____ Clay _____

Flow: No Flow _____ Gentle _____ Moderate _____ Heavy _____

Adjacent Community Type: _____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other _____

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/13

Data Point ID: 1W @ wet 35

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	70	Y	FACU
2. Striped Maple	10	N	FACU
3. Green Ash	10	N	FACW
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Sugar Maple	35	Y	FACU
2. Green Ash	10	N	FACW
3. Striped Maple	5	N	FACU
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Bracken Fern	15	N	FACU
2. Wood Fern	15	N	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Limited veg. in understory

Project Number: 12012

Applicant: Owen Energy

Soil Map Unit: TbB

Sampling Date: 8/30/13

Data Point ID: 1U (wet 35

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 4/4						Sandy loam
4-16	10YR 4/3						Sandy silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/2013
County: Lewis
Applicant: Copenhagen Wind, LLC State: **New York** Community: PEM/PSS
Data Point ID (i.e. 2W@Wet. G): 1WQwetJK Nearest Flag to Data Point: 3K-9

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
✓ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 4
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/2013

Data Point ID: 1W @ wet 3K

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp	60	Y	FACW
2. Silky dogwood	30	Y	FACW
3. Cottonwood	5	N	FAC
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carex sp	25	Y	FACW/OBL
2. Sensitive fern	30	Y	FACW
3. Late goldenrod	40	Y	FACW
4. Joe-pye weed	5	N	FACW
5 Boneset	10	N	OBL
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012 Sampling Date: 8/30/2013

Applicant: Copenhagen Wind, LLC Data Point ID: 1W Quit 3K

Soil Map Unit: PhB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/1						Silt loam
6+	10YR 2/1		10YR 5/6	MA	C	PL	Silty clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/2013
County: Lewis
Applicant: Copenhagen Wind, LLC State: **New York** Community: Old field | Shrubland
Data Point ID (i.e. 2W@Wet. G): 1U @ wet 3K Nearest Flag to Data Point: 3K-9

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: ____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/2013

Data Point ID : 1W Quet 3K

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	40	Y	FACU
2. Apple	10	N	FACU
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Canada goldenrod	60	Y	FACU
2. Multiflora Rose	10	N	FACU
3. Ragweed	5	N	FAC
4. Gray dogwood	25	N	FAC
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012 Sampling Date: 8/30/2013

Applicant: Copenhagen Wind, LLC Data Point ID : 1U @ wet 35

Soil Map Unit: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
~~0-12~~							
0-16	10YR 4/4						Sandy silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/2013
County: Lewis
Applicant: Copenhagen Wind, LLC State: **New York** Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W @ wet 3L Nearest Flag to Data Point: ~~3L-10~~ 3L-10

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ____ Stream Width ____ Water Depth ____

Stream Gradient: Gentle ____ Moderate ____ Steep ____

Substrate: Bed Rock ____ Boulder ____ Cobble ____ Gravel ____ Sand ____ Silt ____ Clay ____

Flow: No Flow ____ Gentle ____ Moderate ____ Heavy ____

Adjacent Community Type: ____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/2013

Data Point ID : SE-10

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Narrow-leaf cattail	75	Y	OBL
2. Late goldenrod	20	N	FACW
3. Rice cut grass	10	N	FACW
4. Joe-pye weed	5	N	FACW
5 Boneset	5	N	OBL
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/2013

Data Point ID: 1W @ wet 3K

Soil Map Unit: IaB

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 2/2		10YR 5/6	C	C	M	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark Sampling Date: 8/30/2013
County: Lewis
Applicant: Copenhagen Wind, LLC State: **New York** Community: Upland Roadside
Data Point ID (i.e. 2W@Wet. G): ~~1W~~ 1UP wet 3L Nearest Flag to Data Point: 3L-10

Investigator(s): Schwabenbauer, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** Roadside

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	_____	Gentle	_____	Bed Rock	_____	Sand	_____	No Flow	_____
___ Intermittent	Stream Width	_____	Moderate	_____	Boulder	_____	Silt	_____	Gentle	_____
	Water Depth	_____	Steep	_____	Cobble	_____	Clay	_____	Moderate	_____
					Gravel	_____			Heavy	_____

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

Road shoulder b/w wetland 3L and highway 164

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/2013

Data Point ID : 1W @ wet 3L

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Upland grasses			
2. Per. rye grass	30	Y	FACU
3. Clover	30	Y	FACU
4. Crown vetch	30	Y	FACU
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 12012

Applicant: Copenhagen Wind, LLC

Sampling Date: 8/30/2013

Data Point ID: 1U @ wet 3L

Soil Map Unit:

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
	10YR 4/3						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: Gravel / rd debris

Depth (inches): 12

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes** **No**
Hydric Soil Present? **Yes** **No**
Wetland Hydrology Present? **Yes** **No**
Is this Sampling Point Within a Wetland? **Yes** **No**

Hydrologic Connectivity to Off-site Wetlands? **Yes** **No** **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes** **No** **N/A**
Is this Wetland Potentially Isolated? **Yes** **No** **N/A**

Is the wetland mapped in the NWI? **Yes** **No**
Is the wetland a mapped state wetland? **Yes** **No**

If yes, indicate classification ___
If yes, indicate wetland ID ___

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 2012 Town: _____ Sampling Date: 9/4/13
County: _____
Applicant: OWN Energy State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@3M Nearest Flag to Data Point: 3M-10

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	_____	Gentle	_____	Bed Rock	_____	Sand	_____	No Flow	_____
___ Intermittent	Stream Width	_____	Moderate	_____	Boulder	_____	Silt	_____	Gentle	_____
	Water Depth	_____	Steep	_____	Cobble	_____	Clay	_____	Moderate	_____
					Gravel	_____			Heavy	_____

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/4/13

Data Point ID : 1WPwet 3M

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1.			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/4/13

Data Point ID: 1W@WET 3W

Soil Map Unit: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-3	10YR 2/1						Silt loam
3-6	10YR 5/2						Silt loam
6-12	2.5Y 5/4		10YR 5/6	MA	C	M	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/4/13

Data Point ID: 1W @ wet 3W

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. English Plantain			
2. Clover (white)			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/4/13

Data Point ID: 1U @ wet 3M

Soil Map Unit:

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/2						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[4]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes No**
Hydric Soil Present? **Yes No**
Wetland Hydrology Present? **Yes No**
Is this Sampling Point Within a Wetland? **Yes No**

Hydrologic Connectivity to Off-site Wetlands? **Yes No N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes No N/A**
Is this Wetland Potentially Isolated? **Yes No N/A**

Is the wetland mapped in the NWI? **Yes No** If yes, indicate classification _____
Is the wetland a mapped state wetland? **Yes No** If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 2012 Town: _____ Sampling Date: 9/4/13
County: _____
Applicant: OWN Energy State: **New York** Community: _____

Data Point ID (i.e. 2W@Wet. G): 1UP wet3M Nearest Flag to Data Point: 3M-10

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width _____
Stream Width _____
Water Depth _____

Stream Gradient:
Gentle _____
Moderate _____
Steep _____

Substrate:
Bed Rock _____
Boulder _____
Cobble _____
Gravel _____
Sand _____
Silt _____
Clay _____

Flow:
No Flow _____
Gentle _____
Moderate _____
Heavy _____

Adjacent Community Type: _____

Instream Conditions:
____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other _____

Remarks

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/4/13

Data Point ID : 1U @ wet 3M

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1.			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/4/13

Data Point ID: W2 wet 3M

Soil Map Unit: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? **Yes No**
Hydric Soil Present? **Yes No**
Wetland Hydrology Present? **Yes No**
Is this Sampling Point Within a Wetland? **Yes No**

Hydrologic Connectivity to Off-site Wetlands? **Yes No N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? **Yes No N/A**
Is this Wetland Potentially Isolated? **Yes No N/A**

Is the wetland mapped in the NWI? **Yes No** If yes, indicate classification _____
Is the wetland a mapped state wetland? **Yes No** If yes, indicate wetland ID _____

Environmental Design & Research
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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: ~~Denmark~~ Champion Sampling Date: 9/4/13

County: ~~Lewis~~ Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PFO

Data Point ID (i.e. 2W@Wet. G): 1W @ wet 3N Nearest Flag to Data Point: 3N-22

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓

Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —

Depth to Sat. Soil (inches): 2

Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Wetland hydrology present

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 9/4/13

Data Point ID: 1WQwet3N

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Maple	35	Y	FAC
2. Green Ash	40	Y	FACW
3.			
4.			
5			
	75 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Red Maple	30	Y	FAC
2. Green Ash	60	Y	FACW
3.			
4.			
5			
	90 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Ostrich Fern	20	N	FACW
2. Late Goldenrod	60	Y	FACW
3. Jewelweed	60	Y	FACW
4. Sensitive Fern	40	N	FACW
5 Willow sp.	10	N	FACW
6. Oxeye daisy	10	N	FACU
7. NE Aster	5	N	FACU
8.			
9.			
10.			
	205 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

- Some dead trees/snags
- Wet. Veg. present.

Project Number: 12012 Sampling Date: 9/4/13

Applicant: OwnEnergy Data Point ID: 1W@wet 3N

Soil Map Unit: GIB

Soils Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-10	10YR 3/1						Silt loam
10-16	10YR 3/1	20					
	10YR 6/4	80	7.5YR 5/8	F	CS	M	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Restrictive layer @ 16" - Stone

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? **Yes** No
Hydric Soil Present? **Yes** No
Wetland Hydrology Present? **Yes** No
Is this Sampling Point Within a Wetland? **Yes** No

Hydrologic Connectivity to Off-site Wetlands? **Yes** No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

Environmental Design & Research
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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: ~~Denmark~~ Champion Sampling Date: 9/4/13

County: ~~Lewis~~ Jefferson

Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: Upland NDF

Data Point ID (i.e. 2W@Wet. G): 1UP wet 3N Nearest Flag to Data Point: 3N - 22

Investigator(s): BS, CL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	_____	Gentle	_____	Bed Rock	_____	Sand	_____	No Flow	_____
___ Intermittent	Stream Width	_____	Moderate	_____	Boulder	_____	Silt	_____	Gentle	_____
	Water Depth	_____	Steep	_____	Cobble	_____	Clay	_____	Moderate	_____
					Gravel	_____			Heavy	_____

Adjacent Community Type: _____

Instream Conditions:

____ Obscurred Banks
____ Well Defined Banks
____ Eroded/Undercut Bank
____ Deep Pools
____ Riffles & Pools
____ Overhanging Vegetation
____ Vegetated Channel
____ Other _____

Remarks No wet hydrology

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 9/4/13

Data Point ID: 1UPwet-3N

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Am. Beech	20	Y	FACU
2. Green Ash	30	Y	FACW
3. Shagbark Hickory	30	Y	FACU
4. Sugar Maple	20	Y	FACU
5			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	10	N	FACU
2. Am. Beech	40	Y	FACU
3. Shagbark Hickory	15	Y	FACU
4.			
5			
	65	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Wood Fern	20	Y	FACU
2. Christmas Fern	20	Y	FACU
3. Sugar Maple	10	N	FACU
4. Green Ash	10	N	FACW
5 Poison Ivy	20	Y	FACU
6.			
7.			
8.			
9.			
10.			
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 11% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No Wet. Veg. dominance

Project Number: 12012

Applicant: OwnEnergy

Soil Map Unit: GIB

Sampling Date: 9/4/13

Data Point ID: 10 Pwet 3N

Soils

Profile Description: (Describe to the depth needed to document the indicator or confir

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	
0-16	10YR 3/3						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Remarks No hydric soil indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes **No**
Hydric Soil Present? Yes **No**
Wetland Hydrology Present? Yes **No**
Is this Sampling Point Within a Wetland? Yes **No**

Hydrologic Connectivity to Off-site Wetlands? Yes No **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flag N/A
Is this Wetland Potentially Isolated? Yes No **N/A**

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: ~~2012~~ 2012 Town: Champion Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: New York Community: PEM / PSS
Data Point ID (i.e. 2W@Wet. G): 1W @ wet 30 Nearest Flag to Data Point: 30 - 44

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 2
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Extensive dead/dying trees due to beavers
Once a forested wetland, but not anymore

Project Number: ~~2012~~ 12812

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W @ wet 30

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Sensitive Fern	40	Y	FACW
2. Silky dogwood	25	N	FACW
3. Salix sp.	40	Y	FACW
4. Bunesset	5	N	FACW
5 Cardinal flower	5	N	OBL
6. Woolgrass	10	N	OBL
7. Joe-pye weed	5	N	FAC
8. Rice cut grass	20	N	OBL
9. Reed Canary grass	15	N	FACW
10.			
	185	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (provide supporting data in remarks)
- Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Hydrophytic Vegetation Present.

Project Number: 2012

Applicant: OWN Energy

Soil Map Unit: GIB

Sampling Date: 9/5/13

Data Point ID: 1W @ wet + 30

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 2/1						Silt loam
4-10	10YR 2/1		10YR 5/6	F	C	PL	Silt loam
10-14	10YR 5/6	60					Sandy loam
	10YR 2/1	40					

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: ~~B~~ GRAVEL/ROCK

Depth (inches): 14

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

Remarks Hydric Soils Present

Sandy lowest layer on top of gravel/rock

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Is the wetland mapped in the NWI? (Yes) No

Is the wetland a mapped state wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes (No) N/A

If yes, indicate classification PFO1E / PSS1/EM1E

If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Champion Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: New York Community: Upland NDF
Data Point ID (i.e. 2W@Wet. G): 1U Pwet 3D Nearest Flag to Data Point: 30-44

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	____	Gentle	____	Bed Rock	____	Sand	____	No Flow	____
___ Intermittent	Stream Width	____	Moderate	____	Boulder	____	Silt	____	Gentle	____
	Water Depth	____	Steep	____	Cobble	____	Clay	____	Moderate	____
					Gravel	____			Heavy	____

Adjacent Community Type: ____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks No hydrology present

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 10 @ wet 30

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	20	Y	FACU
2. Green Ash	10	N	FACW
3. Musclewood (Am. Hornbeam)	60	Y	FAC
4.			
5			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Musclewood	60	Y	FAC
2. Sugar Maple	15	Y	FACU
3.			
4.			
5			
	75	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Christmas Fern	10	N	FACU
2. White Snakeroot	10	N	FACU
3. Poison Ivy	10	N	FAC
4. Upland grasses	10	N	FACU
5 Woods Fern	25	N	FACU
6. Goldenrod sp.	50	Y	FACU
7. Strawberry	5	N	~~FACW~~ FACU
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No dominant Wet. Veg.

Project Number: 2012

Applicant: OWN Energy

Soil Map Unit: GIB

Sampling Date: 9/5/13

Data Point ID: 1U Quest 30

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/3						Sandy loam
4-9	10YR 3/3	60					Sandy loam
[illegible]	10YR 3/4	40					
9+	10YR 3/4	80					Sandy silt loam
	10YR 3/3	20					

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No hydric soil indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification PFO1E, PSS1/EM1E
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: ~~2012~~ 12012 Town: Champion Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: **New York** Community: PFO

Data Point ID (i.e. 2W@Wet. G): 1W@ wet 3P Nearest Flag to Data Point: 3P - 1

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0 - 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 3
Depth to Water (inches): —

Rain last night

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks wetland hydrology present

Project Number: ~~2012~~ 12012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W @ wet 3P

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	20	Y	FACW
2. Red Maple	35	Y	FAC
3. Yellow birch	25	Y	FAC
4.			
5			
	80	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash	20	Y	FACW
2. Red Maple	40	Y	FAC
3. Yellow birch	30	Y	FAC
4.			
5			
	90	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Jewelweed	60	Y	FACW
2. Sensitive Fern	20	Y	FACW
3. late goldenrod	10	N	FACW
4. White Snakeroot	5	N	FACU
5			
6.			
7.			
8.			
9.			
10.			
	95	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland veg. dominant

Project Number: ~~2012~~ 12012

Sampling Date: 9/5/13

Applicant: OWN Energy

Data Point ID: 1W Point 3P

Soil Map Unit: GIB

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redox Features Frequency[1]	Redox Features Type[2]	Redox Features Loc[3]	Texture, Structure, Other
0-6	10YR 3/2						Silt loam
6-10	10YR 2/2						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Gravel/Rock

Depth (inches): 10

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

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: ~~2012~~ 12012 Town: _____ Sampling Date: 9/5/13

County: Jefferson

Applicant: OWN Energy State: **New York** Community: Upland NDF

Data Point ID (i.e. 2W@Wet. G): ~~Kw~~ 1UPwet 3P Nearest Flag to Data Point: 3P-1

Investigator(s): BS,

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): Varies

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No X
Saturated Conditions? Yes ____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	_____	Gentle	_____	Bed Rock	_____	Sand	_____	No Flow	_____
___ Intermittent	Stream Width	_____	Moderate	_____	Boulder	_____	Silt	_____	Gentle	_____
	Water Depth	_____	Steep	_____	Cobble	_____	Clay	_____	Moderate	_____
					Gravel	_____			Heavy	_____

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks No hydrology present.

Project Number: ~~2042~~ 12012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1U @ wet 3P

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Black Cherry	30	Y	FACU
2. Sugar Maple	30	Y	FACU
3.			
4.			
5			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Am. Beech	40	Y	FACU
2. Sugar Maple	40	Y	FACU
3. Black Cherry	20	N	FACU
4.			
5			
	120	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Wood Fern	25	Y	FACU
2. Poison Ivy	10	Y	FAC
3. Christmas Fern	10	Y	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 14% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Limited veg. in understory

Project Number: ~~2012~~ 12012

Applicant: OWN Energy

Soil Map Unit: GIB

Sampling Date: 9/5/13

Data Point ID: WQ wet 3P

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/4						Sandy loam
6+	10YR 4/4						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No hydric soil indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Champion Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: New York Community: PSS / PEM

Data Point ID (i.e. 2W@Wet. G): 1W Quest 3Q Nearest Flag to Data Point: 3Q-17

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-3

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 6-12
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Small open water area near sample points
Dead / dying trees as a result of inundation

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W @ wet 3Q

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cottonwood	10	N	FAC
2. Silky dogwood	35	Y	FACW
3. Button bush	10	N	OBL
4.			
5			
	55	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Wool grass	60	Y	OBL
2. Sensitive fern	30	N	FACW
3. Willow sp.	20	N	FACW
4. Carex sp.	40	Y	FACW
5 Rice cutgrass	35	N	FACW
6.			
7.			
8.			
9.			
10.			
	185	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. dominant.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1WPunt 3Q

Soil Map Unit: MdC

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 2/2						Organics
4-8	10YR 3/2						Clay loam
8+	10YR 5/6	80	10YR 5/8	MA	C	M	Sandy Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A Unknown

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: ~~Jefferson~~ Champ Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: **New York** Community: Upland NDF
Data Point ID (i.e. 2W@Wet. G): 1U Pwet Q Nearest Flag to Data Point: N-17

Investigator(s): BS, AL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): _____

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	_____	Gentle	_____	Bed Rock	_____	Sand	_____	No Flow	_____
___ Intermittent	Stream Width	_____	Moderate	_____	Boulder	_____	Silt	_____	Gentle	_____
	Water Depth	_____	Steep	_____	Cobble	_____	Clay	_____	Moderate	_____
					Gravel	_____			Heavy	_____

Adjacent Community Type: _____

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other _____

Remarks No hydrology present

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1U @ wet 3Q

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Hawthorne	50	Y	FACU
2. Apple	20	Y	FACU
3. Sugar Maple	20	Y	FACU
4. Black Cherry	10	N	FACU
5			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Hawthorne	60	Y	FACU
2. Am. Beech	10	N	FACU
3. Musclewood	10	N	FAC
4. Shagbark Hickory	10	N	FACU
5			
	90	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Strawberry	50	Y	FACU
2. Wood fern	15	N	FACU
3. Upland Grasses	30	Y	FACU
4. Moss (minimal)	5	N	–
5 White snakeroot	10	N	FACU
6. Raspberry	10	N	FACU
7. Blackberry	10	N	FACU
8.			
9.			
10.			
	130	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet. veg.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1U @ wet 3Q

Soil Map Unit: MdC

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/3						Sandy loam
4-8	10YR 3/3	80					Sandy loam
	10YR 3/4	20					
8+	10YR 3/6	90					
	10YR 3/3	10					

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks

No hydric soils evident

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 2012 Town: Rutland Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: **New York** Community: PSS/PEM

Data Point ID (i.e. 2W@Wet. G): 1WP wet3R Nearest Flag to Data Point: 3R-10

Investigator(s): BS, AL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): N/A

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Hydrology very evident

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W @ wet 3R

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Yellow birch	50	Y	FAC
2. Green Ash	10	N	FACW
3.			
4.			
5			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Silky dogwood	20	Y	FACW
2. Yellow birch	40	Y	FAC
3. Salix sp.	20	Y	FACW
4.			
5			
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Jewelweed	60	Y	FACW
2. Rice cut grass	35	Y	OBL
3. Boneset	<5	N	FACW
4. Late goldenrod	10	N	FACW
5 Wood fern	<5	N	FACU
6. NE Asters	5	N	FACU
7. Sensitive fern	30	Y	FACW
8.			
9.			
10.			
	135	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wet. Veg. Present.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W Quart 3R

Soil Map Unit: MdC

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 2/1		10YR 5/2	F	CS	M	Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Few coated sand grains within 10YR 2/1 matrix

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
If yes, indicate classification _____

Is the wetland a mapped state wetland? Yes No
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 2012 Town: Rutland Sampling Date: 9/5/13

County: Jefferson

Applicant: OWN Energy State: **New York** Community: Old field (adj. to corn)

Data Point ID (i.e. 2W@Wet. G): 1U @ wet 3R Nearest Flag to Data Point: 3R - 10

Investigator(s): BS, AL

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology present

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1U @ wet 3R

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Apple	15	Y	FACU
2.			
3.			
4.			
5			
	15 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Goldenrod	80	Y	FACU
2. Corn field (Maze)			FACU
3. Raspberry	20	Y	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet Veg. Present.

Project Number: 2012 Sampling Date: 9/5/13

Applicant: OWN Energy Data Point ID: 1U Quad 3R

Soil Map Unit: MdC

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/3						Silt loam
4-8	10YR 3/3	60					Silt loam
	10YR 4/4	40					
8+	10YR 4/4						

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Soil sample taken in transitional area rather than in the corn field.

Wetland Determination

Hydrophytic Vegetation Present? Yes **No**
Hydric Soil Present? **Yes** No
Wetland Hydrology Present? Yes **No**
Is this Sampling Point Within a Wetland? Yes **No**

Is the wetland mapped in the NWI? Yes **No**
Is the wetland a mapped state wetland? Yes **No**

Hydrologic Connectivity to Off-site Wetlands? Yes No **N/A**
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No **N/A**
Is this Wetland Potentially Isolated? Yes No **N/A**

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy
State: New York
Community: PEM w/ int. chan.
Data Point ID (i.e. 2W@Wet. G): 1W@wet 4A
Nearest Flag to Data Point: 4A-7

Investigator(s): AM, BS

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 2
Depth to Water (inches): —

Stream Characteristics

Stream type: ✓ Perennial ___ Intermittent

Morphology: Bank Width 2'-4'; Stream Width 1'-3'; Water Depth 2-5"

Stream Gradient: Gentle ✓; Moderate ___; Steep ___

Substrate: Bed Rock ___; Boulder ___; Cobble ___; Gravel ✓; Sand ___; Silt ✓; Clay ___

Flow: No Flow ___; Gentle ✓; Moderate ___; Heavy ___

Adjacent Community Type: PEM

Instream Conditions:

- ✓ Obscurred Banks
- ✓ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ✓ Overhanging Vegetation
- ✓ Vegetated Channel (light)
- ___ Other ___

Remarks

PEM w/ small intermittent (possibly perennial stream)

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W (wet 4A

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Joe-pye weed	65	Y	FAC
2. Rice cut grass	35	Y	OBL
3. Sensitive fern	20	N	FACW
4. NE Aster	45	N	FACU
5 Late goldenrod	10	N	FACW
6. Jewelweed	25	N	FACW
7. Ostrich fern	5	N	FACW
8. Boneset	10	N	FACW
9.			
10.			
	172 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Hydrology present.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: 1W @ wet 4A

Soil Map Unit: Fu

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/1						Silty loam
8+	10YR 3/1		10YR 5/1	MA	CS	M	Sandy Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

DEC Un-protected stream Class C

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9/5/13
County: Jefferson
Applicant: OWN Energy State: **New York** Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U@wet 4A Nearest Flag to Data Point: 4A-7

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology present.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/5/13

Data Point ID: IV e wet 4A

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Yellow birch	30	Y	FAC
2. Sugar Maple	15	N	FACU
3. Am. Beech	25	Y	FACU
4. Shagbark Hickory	10	N	FACU
5			
	80	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Am. Beech	60	Y	FACU
2. Yellow birch	40	Y	FAC
3. Sugar Maple	20	N	FACU
4.			
5			
	120	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Wood fern	15	Y	FACU
2. Garlic mustard	25	Y	FACU
3. Christmas Fern	5	N	FACU
4. Poison Ivy	5	N	FAC
5			
6.			
7.			
8.			
9.			
10.			
	50	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

limited veg in understory

Does not meet dominance levels.

Project Number: J2012 Sampling Date: 9/5/13

Applicant: OWN Energy Data Point ID: 1UPwet4A

Soil Map Unit: Fluvaquents Udifluvents Complex (FU)

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/4						Sandy loam
10+	10YR 3/4						Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks No hydric soil present.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9/6/13
County: Jefferson
Applicant: OWN Energy State: **New York** Community: PEM/PSS
Data Point ID (i.e. 2W@Wet. G): 1W@wet 4C Nearest Flag to Data Point: 4C-21

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
✓ Shallow Aquitard (D3)
✓ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 4
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Wetland hydrology present.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9/6/2013

Data Point ID: 1W @ wet 4c

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cottonwood	10	Y	FAC
2. Poplar	5	Y	FACW
3. Red Maple	10	Y	FACW
4.			
5			
	25	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp	30	Y	FACW
2. Button bush	15	Y	OBL
3. Silky dogwood	15	Y	FACW
4.			
5			
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Boneset	30	N	FACW
2. Blue vervain	25	N	FACW
3. Broad leaved cattails	<5	N	OBL
4. Jewelweed	35	Y	FACW
5 Sensitive fern	15	N	FACW
6. Late goldenrod	25	N	FACW
7. Bladder sedge	15	N	FACW
8. Rice cut grass	25	N	OBL
9. Joe pye weed	<5	N	FAC
10.			
	175	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ✓ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

Wetland Veg. dominant.

Project Number: 2012 Sampling Date: 9/6/2013

Applicant: OWN Energy Data Point ID: IW Quet 4C

Soil Map Unit: FaB

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/1						Silt loam
4-8	10YR 3/1		10YR 5/2	MA	RM	MA	Clay loam
			10YR 4/6	MA	C	PL	
8+	10YR 5/2	90					Clay loam
	10YR 3/1	10					

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

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

Remarks Hydric soils present

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID RU-14

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 1 2012 Town: Rutland Sampling Date: 9/6/13
County: Jefferson
Applicant: OWN Energy State: New York Community: Old Field (adj to corn)
Data Point ID (i.e. 2W@Wet. G): 1U @ wet 4C Nearest Flag to Data Point: 4C-20

Investigator(s): BS, AM

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-4

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Point taken b/w wetland and corn field

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/6/13

Data Point ID: WQ west 4C

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Old field cinquefoil	20	N	FACU
2. Field thistle	10	N	FACU
3. Black eyed susan	10	N	FACU
4. Goldenrod	40	Y	FACU
5 Aster	5	N	FACU
6. Queen Anne's Lace	5	N	FACU
7. Bulstraw	15	N	UPL
8. Strawberry	25	N	FACU
9.			
10.			
	108	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

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

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

Remarks

No wet. veg. dominance.

Project Number: 2012

Applicant: OWN Energy

Soil Map Unit: GIB

Sampling Date: 9/6/13

Data Point ID: 10 @ wet 4c

Soils

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/4						Sandy loam
4-8	10YR 6/4						Sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: Rock

Depth (inches): 8

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 9/30/13
County: Lewis
Applicant: Own Energy
State: New York
Community: UDF (Sugar Maple Dominant)
Data Point ID (i.e. 2W@Wet. G): 1U@Wet4E
Nearest Flag to Data Point: 4E16

Investigator(s): C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 1-2%

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

N/A

___ 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics N/A

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No wetland hydrology.

Project Number: 12012
Applicant: OWN Energy

Sampling Date: 9/30/13
Data Point ID: 1U@WCt4E

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharum	90%	Y	FACU-
2. Fraxinus pennsylvanica	10%	N	FACW
3.			
4.			
5			
	100%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Acer saccharum	40%	Y	FACU-
2. Fraxinus pennsylvanica	20%	Y	FACW
3.			
4.			
5			
	60%	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Rhamnus cathartica	60%	Y	UPL
2. Thelypteris noveboracensis	20%	Y	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	80%	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators: N/A

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

- No wetland dominance.
- Limited growth in understory.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/30/13

Data Point ID: 1U @ Wet4E

Soil Map Unit: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-20"	10YR 3/3	100					Sandy Loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators N/A

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

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

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

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

N/A

Remarks N/A

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 9/30/13
County: Jefferson
Applicant: OWN Energy
State: **New York**
Community: PFO/PSS
Data Point ID (i.e. 2W@Wet. G): 1W@Wet4E
Nearest Flag to Data Point: 4E-16

Investigator(s): C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 1-2%

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain In Remarks)

Secondary Indicators (min. - 2 required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Characteristics N/A

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Wetland hydrology present.

Project Number: 12012
Applicant: OWN Energy

Sampling Date: 9/30/13
Data Point ID: 1W@Wet4E

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	15%	N	FACW-
2. Populus deltoides	30%	Y	FAC
3. Fraxinus pennsylvanica	40%	Y	FACW
4. Tilia americana	5%	N	FACU
5 Acer saccharum	10%	N	FACU-
	100%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Rhamnus cathartica	20%	Y	UPL
2. Fraxinus pennsylvanica	20%	Y	FACW
3. Acer saccharum	15%	Y	FACU-
4. Acer rubrum	5%	N	FACW+
5 Fagus grandifolia	10%	N	FACU
	70%	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Matteuccia struthiopteris	40%	Y	FACW
2. Onoclea sensibilis	40%	Y	FACW
3. Toxicodendron radicans	20%	N	FAC
4. Fraxinus pennsylvanica	15%	N	FACW
5 Solidago gigantea	15%	N	FACW
6. Rhamnus cathartica	15%	N	UPL
7. Thelypteris noveboracensis	5%	N	FAC
8. Rubus idaeus	5%	N	FAC-
9. Parthenocissus quinquefolia	5%	N	FACU
10.			
	160	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. Vitis sp.	20%	Y	FAC
2.			
3.			
4.			
5			
	20%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators: ✓

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in remarks)
- ___ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Hydrophytic Vegetation present.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9/30/13

Data Point ID: 1W @ Wet 4E

Soil Map Unit:

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-12"	2.5Y 2/0	100					Sandy loam
12"-16"	10YR 6/3	60					"
	2.5Y 2/0	40					"
16"-20"	10YR 7/2	70%					"
	10YR 4/2	30%	7.5YR 5/8	F	CS	M	"

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- X Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Piedmont Floodplain Soils F19)
- ___ Mesic Spodic (TA6)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks Hydric Soil present

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No

Hydric Soil Present? (Yes) No

Wetland Hydrology Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A

Is this Wetland Potentially Isolated? Yes No N/A (Und.)

Is the wetland mapped in the NWI? (Yes) (No)

Is the wetland a mapped state wetland? (Yes) No

If yes, indicate classification PFO1E

If yes, indicate wetland ID C-13

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 10/10/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM | PSS
Data Point ID (i.e. 2W@Wet. G): 1W @ wet 4F Nearest Flag to Data Point: 4F-4

Investigator(s): Schwabenbauer

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Some clearing in adjacent uplands

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1"
Depth to Sat. Soil (inches): 0
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Large PEM/PSS wetland. Dead/dying trees.
Possibly once a PFO, now PEM/PSS.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 10/10/13

Data Point ID: 1W @ wet 4F

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2. Dead/Dying Trees			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Maple	10	N	FACW
2. Green Ash	10	N	FACW
3. Willow sp.	40	Y	FACW
4. Speckled Alder	25	Y	FACW
5 Silky Dogwood	10	N	FACW
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ostrich Fern	20	Y	FACW
2. Sensitive Fern	20	Y	FACW
3. Woolgrass	15	N	OBL
4. Narrow leaf cattail	10	N	OBL
5 Carex sp.	40	Y	FACW/OBL
6. Sphagnum moss			NL
7. Reed Canary Grass	20	Y	FACW
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012 Sampling Date: 10/10/13

Applicant: OwnEnergy Data Point ID: 1W @ unit 4F

Soil Map Unit: ~~CaB~~ IaA Ilion Silt loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 4/2	100					Silt loam
8-16	10YR 4/2	40					Silty clay loam
	10YR 7/6	60					Silty clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
✓ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks Hydric soils dominant

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification PSS1Ed
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 10/10/13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U@wet 4F Nearest Flag to Data Point:

Investigator(s): Schwabenbauer

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ____
Saturated Conditions? Yes ____ No ____

Depth of Water (inches): ____
Depth to Sat. Soil (inches): ____
Depth to Water (inches): ____

Stream Characteristics

Stream type:
___ Perennial
___ Intermittent

Morphology:
Bank Width ____
Stream Width ____
Water Depth ____

Stream Gradient:
Gentle ____
Moderate ____
Steep ____

Substrate:
Bed Rock ____ Sand ____
Boulder ____ Silt ____
Cobble ____ Clay ____
Gravel ____

Flow:
No Flow ____
Gentle ____
Moderate ____
Heavy ____

Adjacent Community Type: ____

Instream Conditions:
___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ____

Remarks Upland forested area adjacent to wetland. Recent clearing activities. Some logging rds nearby.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 10/10/13

Data Point ID: 1U @ wet 4F

Soil Map Unit: MdB Manlius Silt Loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 4/4	100					Sandy silt loam
6+	10YR 4/3	100					Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

No hydric soil indicators

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 10/10/13

Data Point ID: IW Quad 4F

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple	35	Y	FACU
2. American Beech	30	Y	FACU
3. Striped Maple	5	N	FACU
4. Yellow Birch	5	N	FAC
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugarmaple	25	Y	FACU
2. Am. Beech	25	Y	FACU
3. Striped Maple	5	N	FACU
4. Yellow Birch	15	N	FAC
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Christmas Fern	10	N	FACU
2. Wood fern	25	Y	
3. Viburnum	10	N	
4. Poison Ivy	10	N	
5 Raspberry	15	Y	
6. Multiflora Rose	15	Y	
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Limited vegetation in understory (sparse).

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 10-10-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: **New York** Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W @ wet 4F Nearest Flag to Data Point: 4G = 4

Investigator(s): Schwabenbauer

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): Flat

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): ✓
Depth to Sat. Soil (inches): 2
Depth to Water (inches): 10

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow ___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle ___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate ___
					Gravel	___			Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks ~~[illegible]~~ Hummocky microtopography.
Dead/dying trees. PEM wetland surrounded by mostly NDF.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 10-10-13

Data Point ID: IW @ wet 46

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. White pine	10	N	FACU
2. Green Ash	25	Y	FACW
3. Red Maple	25	Y	FACW
4. Yellow birch	15	N	FAC
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. American Elm	5	N	FACW
2. Green Ash	10	N	FACW
3. Red Maple	5	N	FACW
4. White pine	5	N	FACU
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Ostrich Fern	30	Y	FACW
2. Sensitive Fern	35	Y	FACW
3. Carex sp.	25	Y	FACW/OBL
4. Narrow leaf cattail	5	N	OBL
5 NE Aster	10	N	FACW
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

PEM dominant.

Limited trees and saplings/shrubs.

Dead/dying trees.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 10-10-13

Data Point ID: 1W @ wetlands

Soil Map Unit: CaB Canandaigua Silt loam

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/2	100					Silt loam
8+	10YR 3/1	60	10YR 5/6	MA	C	PL	Silty Clay loam
	10YR 5/6	40					

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification PFO4E
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 10-10-13
County: Lewis
Applicant: OwnEnergy (Copenhagen Wind farm, LLC) State: New York Community: 1U @ wet 4G ~~PEM~~ NDF
Data Point ID (i.e. 2W@Wet. G): 1U @ wet 4G Nearest Flag to Data Point: 4G-4

Investigator(s): Schwabenbauer

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2%

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks Upland NDF adjacent to PEM wetland. Some disturbed areas due to recent clearing.

Project Number: 12012

Applicant: OwnEnergy

Sampling Date: 10.10.13

Data Point ID: 1U @ wet 4G

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Beech	30	Y	FACU
2. Sugar Maple	20	N	FACU
3. White pine	40	Y	FACU
4. Striped Maple	10	N	FACU
5 Black Cherry	5	N	FACU
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. White pine	30	Y	FACU
2. Am. Beech	30	Y	FACU
3. Striped Maple	10	N	FACU
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Wood Fern	15	N	FACU
2. Christmas Fern	5	N	↓
3. Bracken Fern	5	N	↓
4. Multiflora Rose	5	N	↓
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Limited vegetation in understory due to dense ~~overst~~ canopy.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 10-10-13

Data Point ID: 1U (wet 4G

Soil Map Unit: PeB Pinckney silt loam

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 4/4						Sandy loam
4+	10YR 4/3						Silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark/Champion Sampling Date: 10-15-13
County: Lewis/Jefferson
Applicant: OWN Energy State: New York Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W @ Wet 4H Nearest Flag to Data Point: 4H-3

Investigator(s): C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 1-2%

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain In Remarks)

Secondary Indicators (min. - 2 required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X (Presence of vernal pools) Depth of Water (inches): Ø
Saturated Conditions? Yes X No ___ Depth to Sat. Soil (inches): 12"
Depth to Water (inches): Ø

Stream Characteristics N/A

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks
- Wetland hydrology present.
- Vernal pools throughout
- Hummocky microtopography.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 10-16-13

Data Point ID: 1W@Wet4H

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Maple	50%	Y	FAC
2. Silver Maple	70%	Y	FACW
3. Green Ash	15%	N	FACW
4.			
5			
	135	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Red Maple	60%	Y	FAC
2. Green Ash	40%	Y	FACW
3.			
4.			
5			
	100%	= Total Cover	

Herb Stratum (Plot size: 5-foot radius) (limited)			
1. Sensitive fern	60%	Y	FACW
2. Jewelweed	15%	N	FACW
3. Boneset	15%	N	FACW
4. Woodfern (NY Fern)	10%	N	FAC
5			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1. Vitis sp.	5%	N	FACU
2.			
3.			
4.			
5			
	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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- X Dominance Test >50% ✓
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

- limited growth in understory.
- Water stained leaves.
- upland veg. on islands of microtopography
- hydrophytic dominence.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID: 1W@ Wet 4H

Soil Map Unit: AgB- Amenia Loam, deep 3-8% slopes.

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-15"	10YR 2/1	100%	-	-	-	-	Silt loam / lots of orgs.
15-25"	10YR 2/1	35%	-	-	-	-	Silt loam
	10YR 6/1	65%	10YR 6/8	MA	CS	M	Sandy loam
			5YR 4/4	F	C	M	Sandy loam / flakes.

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
X Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks Hydric soil present -

* evidence of redoxification in lower layers close to bedrock.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes No N/A - Possible, needs more investigation.

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? (Yes) No

If yes, indicate classification PFO1E
If yes, indicate wetland ID C-9

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Denmark - Champion Sampling Date: 10-15-13
County: Lewis - Jefferson
Applicant: OWN Energy State: New York Community: Upland / scrub. / Ag.
Data Point ID (i.e. 2W@Wet. G): 1a @ 4H Nearest Flag to Data Point: 4H-3

Investigator(s): C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No** Debris piled up after clear cutting.

Approximate Slope (%): 5%

Hydrology

Primary Indicators (min. - 1 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)

N/A

Secondary Indicators (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics N/A

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No evidence of wetland hydrology.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID: 1U@Wet 4H

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Shagbark hickory	20%	Y	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn	30%	Y	FAC
2. Shagbark hickory	30%	Y	FACU
3. Cherry (Serotina)	10%	N	FACU
4. Bass Wood (American)	15%	N	FACU
5			
	85% = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Strawberry	50%	Y	FACU
2. ~~Snakeweed~~ Snakeroot (white)	35%	N	FACU
3. NY Fern	60%	Y	FAC
4. Aster sp. (upland)	40%	N	FACU
5 Sensitive Fern	15%	N	FACW
6. Goldenrod (Canada)	15%	N	FACU
7.			
8.			
9.			
10.			
	205% = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

N/A - 40%

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Not hydrophytic dominant.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID: 1U @ Wet4H

Soil Map Unit: AgB- Ameria ~~silt~~ loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 2/2	100	-	-	-	-	Silty / Fine sand loam.
16-18	10YR 5/4	100	10YR 6/6	MA	CS	M	Sand loam.

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
X Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 18"

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks Hydric soil indicators present.

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 10-15-13
County: Jefferson
Applicant: OWN Energy State: New York Community: Undetermined / PEM
Data Point ID (i.e. 2W@Wet. G): 1W@ Wet 4I Nearest Flag to Data Point: 4I-54

Investigator(s): C. Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-1%

Cow pasture Soil overturned, Compacted, limited Vegetation.

Hydrology

Primary Indicators (min. - 1 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)
X 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 (min. - 2 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)
X Stunted or Stressed Plants (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No X
Saturated Conditions? Yes ___ No X

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics N/A

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks - Drainage indicates seasonal inundation and patterned flow.
→ Connection to off-site wetlands.

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID: 1W @ Wet 4I

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Reed Canary (Only in North-east section)	70%	Y	FACW
2. Bird-foot trefoil	20%	N	FACU
3. Old field Cinque foil	20%	N	FACU
4. Solidago. Sp.	30%	N	FACU
5 Upland grasses	60%	Y	FACU
6. Butter-Cup	15%	N	FACU
7.			
8.			
9.			
10.			
	215	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

X Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

√ In some specific locations.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

- Hydrophytic dominance questionable
- in areas, no continuous connections of vegetation types typical in PEM wetlands. Potentially due to cow pasture disturbance.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID: 1W@Wet 4I

Soil Map Unit: Galway silt loam, 0-3 % slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Sample point	Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
#1	0-10	10YR 3/2	100	-	-	-	-	silty loam
#2	0-6	10YR 3/2	"	10YR 4/6	F	C	M	"
#3	0-7	10YR 3/3	"	-	-	-	-	"
#4	0-9	10YR 4/1	"	-	-	-	-	" + Gravel

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
? Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
X Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

#1 - Hard Compact.
#2 - Bedrock / Boulder
#3 - Hard. Compact.
#4 - Gravel

Remarks

- Hydric soil possible, needs further analysis to clarify size of wetland.
- Redox depressions present in some locations.

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No Partially!
If yes, indicate classification PEM1E
Is the wetland a mapped state wetland? Yes (No)
If yes, indicate wetland ID _____

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland. Sampling Date: 10-15-13
County: Jefferson
Applicant: OWN Energy State: New York Community: Old field.
Data Point ID (i.e. 2W@Wet. G): 1W@4I Nearest Flag to Data Point: 4I-54

Investigator(s): C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): –

Hydrology

Primary Indicators (min. - 1 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)

N/A

Secondary Indicators (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics N/A

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks N/A

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID : 1W@4I

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Cinquefoil	15%		
2. Upland grasses	40%		
3. Aster sp.	10%		
4.			
5			
6.			
7.			
8.			
9.			
10.			
	65% = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

No wetland vegetation.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 10-15-13

Data Point ID: 1U@Wet 4I

Soil Map Unit: Galway Silt Loam, 0-3% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-11"	10YR 5/3	100	–	–	–	–	Silty loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators N/A

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Redrock

Depth (inches): 11"

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks N/A

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification ___
If yes, indicate wetland ID ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-21-13
County: Lewis
Applicant: OWN Energy State: New York Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@Wet XX Nearest Flag to Data Point: XX-14

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-21-13

Data Point ID: 1W @ Wet XX

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver maple (Acer saccharinum)	40	yes	FACW
2. Yellow birch (Betula alleghaniensis)	30	yes	FAC
3. Hemlock (Tsuga canadensis)	10	no	FACU
4. Sugar maple	10	no	FACU
5			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Sensitive fern (Onoclea sensibilis)	80	yes	FACW
2. Ostrich fern (Matteuccia struthiopteris)	100	yes	FAC
3. Jewelweed (Impatiens capensis)	25	no	FACW
4. Carex sp.	20	no	FACW
5			
6.			
7.			
8.			
9.			
10.			
	185	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number **12012** Sampling Date: 8-21-13

Applicant: OWN Energy Data Point ID : 1W@WetXX

Soil Map Unit: KbA - Kendaia silt loam, 0-3% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/1	100					silt loam
6-18	10YR 3/1	80	10YR 6/8	MA	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? Yes (No) N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? (Yes) No N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-21-13
County: Lewis
Applicant: OWN Energy State: New York Community: Upland forest
Data Point ID (i.e. 2W@Wet. G): 1U@WetXX Nearest Flag to Data Point: XX-14

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-21-13

Data Point ID: 1U@WetXX

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Hemlock (Tsuga canadensis)	100	yes	FACU
2. Sugar maple (Acer saccharum)	15	no	FACU
3.			
4.			
5			
	115	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar maple (Acer saccharum)	15	yes	FACU
2. Hemlock (Tsuga canadensis)	10	yes	FACU
3.			
4.			
5			
	25	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Blackberry (Rubus occidentalis)	25	yes	UPL
2. Canada Goldenrod (Solidago canadensis)	25	yes	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	50	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Sparse herb layer

Project Number 12012 | Sampling Date: 8-21-13

Applicant: OWN Energy | Data Point ID : 1U@WetXX

Soil Map Unit: KbA - Kendaia silt loam, 0-3% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	7.5YR 4/1	100					silt loam
4-20	7.5YR 5/6	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-22-13
County: Lewis
Applicant: OWN Energy State: New York Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@Wet YY Nearest Flag to Data Point: YY-5

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 8
Depth to Sat. Soil (inches): 8
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1W(a) Wet YK

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Purple loosestrife (Lythrum salicaria)	5	no	OBL
2. Green bulrush (Scirpus atrovirens)	60	no	OBL
3. Wet grasses	100	yes	FACW
4. Softrush (Juncus effusus)	70	yes	OBL
5 Blue vervain (Verbena hastata)	10	no	FACW
6. Broadleaf cattail (Typha latifolia)	10	no	OBL
7. Carex sp.	60	no	FACW
8.			
9.			
10.			
	315	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number **12012** Sampling Date: 8-22-13

Applicant: OWN Energy Data Point ID : 1W@Wet YY

Soil Map Unit: AfA - Galway loam 0-3% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 3/2						silt loam
6-10	10YR 3/2		10YR 5/2	F	C	PL	silt loam
	~~10YR 4/4~~		10YR 6/8	F	C	PL	
10-16	10YR 5/2		10YR 6/8	MA	C	PL	silt loam
16+	10YR 5/2		10YR 6/8	C	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
✓ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012
Town: Denmark
Sampling Date: 8-22-13
County: Lewis
Applicant: OWN Energy
State: New York
Community: Hay field
Data Point ID (i.e. 2W@Wet. G): 1U@WetYY
Nearest Flag to Data Point: YY-5

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow ___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle ___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate ___
					Gravel	___			Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1U@WetYY

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Upland grasses	100	yes	FACU
2. Red clover (Trifolium pratense)	30	yes	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Recently mowed hay field

Project Number **12012**

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID : 1U @ WetYY

Soil Map Unit: AFA-Galway loam, 0-3% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/2	100					silt loam
10-16	10YR 5/2	85	10YR 6/8	C	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes (No)
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification _____
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-22-15
County: Lewis
Applicant: OWN Energy State: New York Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W(a) ~~[illegible]~~ Wet 22 Nearest Flag to Data Point: 22-14

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 0-1
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 2

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1W@WetZZ

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple (Acer saccharinum)	100	yes	FACW
2. Red Maple (Acer rubrum)	30	yes	FAC
3. Cedar (Juniperus virginiana)	20	no	FACU
4.			
5			
	150	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple (Acer saccharinum)	60	yes	FACW
2. American Elm (Ulmus americana)	30	yes	FACW
3. Red Maple (Acer rubrum)	20	no	FAC
4.			
5			
	110	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern (Onoclea sensibilis)	50	yes	FACW
2. Spotted Jewelweed (Impatiens capensis)	20	yes	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	70	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number **12012** Sampling Date: 8-22-13

Applicant: OWN Energy Data Point ID : 1W@Wet22

Soil Map Unit: AfB - Galway loam, 3-8% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 2/1	100					Mucky peat
10-14	GLEY 1 7/N	100					silt loam
14-20	GLEY 1 7/N	75	10YR 5/8	C	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
✓ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-22-13
County: Lewis
Applicant: OWN Energy State: New York Community: Hay field

Data Point ID (i.e. 2W@Wet. G): 1U@Wet 22 Nearest Flag to Data Point: 22-14

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1U(a)Wet22

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Red clover (Trifolium pratense)	70	yes	FACU
2. Upland grasses	100	yes	FACU
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	170	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Recently mowed hay field

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1U@Wet22

Soil Map Unit: AfB - Galway loam, 3-8% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/3	100					silt loam
16-20	10YR 4/4	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-21-13
County: Lewis
Applicant: OWN Energy State: **New York** Community: PSS

Data Point ID (i.e. 2W@Wet. G): 2W@Wet 2 Nearest Flag to Data Point: XX-21

Investigator(s): M. Martin, C. Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks ~~Unvegetated Wetland~~

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-21-13

Data Point ID: 2W@Wet2

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Elm (Ulmus americana)	30	yes	FACW
2. Cedar (Juniperus virginiana)	60	yes	FACU
3. Yellow Birch (Betula alleghaniensis)	20	no	FAC
4.			
5			
	110	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Elm (Ulmus americana)	40	yes	FACW
2. Buckthorn (Rhamnus cathartica)	10	no	FAC
3. Green Ash (Fraxinus pennsylvanica)	35	yes	FACW
4.			
5			
	85	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern (Onoclea sensibilis)	60	yes	FACW
2. Green Ash (Fraxinus pennsylvanica)	40	yes	FACW
3. Silky Dogwood (Cornus amomum)	20	no	FACW
4.			
5			
6.			
7.			
8.			
9.			
10.			
	120	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number 12012

Applicant: OWN Energy

Sampling Date: 8-21-13

Data Point ID: 2W@Wet 2

Soil Map Unit: NeB, Nellis loam, 2-8% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-6	10YR 2/1	100					silt loam
6-10	10YR 5/8	100					silt loam
10-16	10YR 5/8	95	7.5YR 5/8	F	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stone

Depth (inches): 16

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012 Town: Denmark Sampling Date: 8-21-13
County: Lewis
Applicant: OWN Energy State: New York Community: ~~[illegible]~~ Upland Forest
Data Point ID (i.e. 2W@Wet. G): 2U@Wet Z Nearest Flag to Data Point: XX-21

Investigator(s): M. Martin, C. Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-21-13

Data Point ID: 2U@Wet 2

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar Maple (Acer saccharum)	30	yes	FACU
2. Yellow Birch (Betula alleghaniensis)	15	yes	FACW
3. Hemlock (Tsuga canadensis)	20	yes	FACU
4.			
5			
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Blackberry (Rubus occidentalis)	60	yes	UPL
2. Strawberry (Fragaria virginiana)	60	yes	FACU
3. Christmas fern (Polystichum acrostichoides)	10	no	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	130	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number **12012** Sampling Date: 8-21-13

Applicant: OWN Energy Data Point ID : 2U@Wet 2

Soil Map Unit: NeB - Nellis loam, 2-8% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/3	100					silt loam
10-14	10YR 5/8	95	7.5YR 5/8	F	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): 14

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 8-22-13
County: Lewis
Applicant: OWN Energy
State: New York
Community: PEM/RIN
Data Point ID (i.e. 2W@Wet. G): 1W@Wet AAA
Nearest Flag to Data Point: AAA-3

Investigator(s): Liddell, Martin

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 8

Stream Characteristics

Stream type: ___ Perennial ✓ Intermittent

Morphology: Bank Width 10-15' Stream Width 5' Water Depth 2-3"

Stream Gradient: Gentle ✓ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ✓ Silt ✓ Clay ✓

Flow: No Flow ___ Gentle ✓ Moderate ___ Heavy ___

Adjacent Community Type: Corn/PEM

Instream Conditions:

- ✓ Obscurred Banks
- ✓ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ✓ Overhanging Vegetation
- ✓ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012
Applicant: OWN Energy

Sampling Date: 8-22-13
Data Point ID: 1W@West AAA

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp.	5	yes	FACW
2.			
3.			
4.			
5			
	5	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Broad leaved cattail (Typha latifolia)	60	yes	OBL
2. Wet grasses	100	yes	FACW
3. Sensitive fern (Onoclea sensibilis)	10	no	FACW
4. Late goldenrod (Solidago gigantea)	30	no	FACW
5 Purple loosestrife (Lythrum salicaria)	20	no	OBL
6.			
7.			
8.			
9.			
10.			
	220	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number 12012 | Sampling Date: 8-22-13

Applicant: OWN Energy | Data Point ID: 1W@Wet AAA

Soil Map Unit: IaA - Ilion silt loam, 0-3% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 3/1	100					clay loam
8-16	10YR 4/1	100					clay loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification PEM1E/PEM1F
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Numbe 12012

Town: Denmark Sampling Date: 8-22-13

County: Lewis

Applicant: OWN Energy

State: New York Community: Corn Field

Data Point ID (i.e. 2W@Wet. G): 1U@WetAAA

Nearest Flag to Data Point: AAA-3

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): ___
Depth to Sat. Soil (inches): ___
Depth to Water (inches): ___

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed.

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1U (a) Wet AAA

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Corn (Zea mays)	100	yes	UPL
2. Carex sp.	20	no	FACW
3. Aster sp	10	no	-
4. Milkweed (Asclepias syriaca)	10	no	UPL
5			
6.			
7.			
8.			
9.			
10.			
	140 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number 12012

Applicant: OWN Energy

Sampling Date: 8-22-13

Data Point ID: 1U @ WetAAA

Soil Map Unit: PhB - Lansing silt loam, 3-8% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-16	10YR 3/3	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-5-13
County: Jefferson
Applicant: OWn Energy
State: New York
Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W@Wet 35
Nearest Flag to Data Point: 35-9

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: (Flat) Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
✓ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 1
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 1W@Wet 3S

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow sp (Salix sp.)	25	yes	FACW
2. Buckthorn (European buckthorn)	30	yes	FAC
3.			
4.			
5			
	55	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Late goldenrod (Solidago gigantea)	80	yes	FACW
2. Joe pye weed (Eutrochium purpureum)	15	no	FAC
3. Green bulrush (Scirpus atrovirens)	20	no	OBL
4. Boneset (Eupatorium perfoliatum)	40	yes	FACW
5 Reed canary grass (Phalaris arundinacea)	20	no	FACW
6. Turtlehead (Chelone glabra)	25	no	OBL
7.			
8.			
9.			
10.			
	200	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 1W@Wet35

Soil Map Unit: Nn - Newstead silt loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-6	10YR 2/1	100					Muck

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
✓ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 6

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? (Yes) No

If yes, indicate classification PEM1/SSIE
If yes, indicate wetland ID RU-25

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-5-13
County: Jefferson
Applicant: Owa Energy
State: New York
Community: Hay field
Data Point ID (i.e. 2W@Wet. G): 1W@Wet3S
Nearest Flag to Data Point: 3S-9

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-5-13
Data Point ID : 1U @ Wet 35

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Upland grasses	100	yes	FACU
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Recently mowed

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 30@Wet 35

Soil Map Unit: Nn - Newstead silt loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-3	10YR 3/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stones

Depth (inches): 3

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-5-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: PEM/RUP
Data Point ID (i.e. 2W@Wet. G): 1W(w)Wet 3T
Nearest Flag to Data Point: 3T-1+

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional (Riparian)

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? (Yes) No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ✓ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 6
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Associated w/ small perennial stream.
No flags - active horse pasture.

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-5-13
Data Point ID: 1W/2W at 3T

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow sp. (Salix sp.)	5	yes	FACW
2.			
3.			
4.			
5			
	5	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Mint (Mentha arvensis)	20	yes	FACW
2. Boneset (Eupatorium perfoliatum)	20	yes	FACW
3. Turtlehead (Chelone glabra)	10	no	OBL
4. Green bulrush (Scirpus atrovirens)	10	no	OBL
5 Manna grass (Glyceria striata)	15	yes	OBL
6.			
7.			
8.			
9.			
10.			
	75	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 1W@Wet3T

Soil Map Unit: NID - Nellis loam, 15-25% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-10	10YR 3/1	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
✓ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 10

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification ___
Is the wetland a mapped state wetland? (Yes) No If yes, indicate wetland ID RU-25

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-5-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: SS
Data Point ID (i.e. 2W@Wet. G): 1U@Wet 3T
Nearest Flag to Data Point: 3T-1+

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-5-13
Data Point ID: 1U@1Wet 3T

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Apple (Malus pumila)	25	yes	FACU
2. Blue spruce (Picea pungens)	15	yes	FACU
3.			
4.			
5			
	40	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Goldenrod (Solidago canadensis)	40	yes	FACU
2. Queen Anne's Lace (Daucus carota)	15	no	UPL
3. Red clover (Trifolium pratense)	46	yes	FACU
4.			
5			
6.			
7.			
8.			
9.			
10.			
	95	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- __ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 1W @ Wet 3T

Soil Map Unit: NID

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR 3/3	100					silt loam
16-18	10YR 4/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Bedrock

Depth (inches): 18

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Stream Inventory

EDR

Observer:
Name: Martin
Weather: Sunny, 65

Project Information:
Name: Copenhagen
Number: 12012 Date: 9-5-13

Stream Name: Unnamed

Stream Location (nearest road, structure, etc.) :
3T-1+

Adjacent Community: SS

Stream Gradient - gentle ✓
- moderate ___
- steep ___

Bank Width: 6ft

Stream Width: 3ft

Water Depth: 4-8"

Substrate:
- Bed Rock ✓
- Boulder ___
- Cobble ___
- Gravel ___
- Sand ___
- Silt ___
- Clay ___

Instream Cover:
- Undercut bank ___
- Overhanging vegetation ✓
- Logs/woody debris ___
- Deep pools ___
- Other ___

Flow:
- Permanent ✓
- Intermittent ___

Photo # ___
Flag #'s ___

Additional Comments: ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-5-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: PFO
Data Point ID (i.e. 2W@Wet. G): 1W@Wet3U
Nearest Flag to Data Point: 3U-7

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 1 in
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 20

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-5-13
Data Point ID: 1W@Wet3U

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple (Acer saccharum)	90	yes	FACW
2.			
3.			
4.			
5			
	90 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple (Acer saccharum)	25	yes	FACW
2. Green Ash (Fraxinus pennsylvanica)	10	no	FACW
3. Silky dogwood (Cornus amomum)	10	no	FACW
4. American Elm (Ulmus americana)	15	yes	FACW
5			
	60 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern (Onoclea sensibilis)	60	yes	FACW
2. Jewelweed (Impatiens capensis)	10	no	FACW
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	70 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Ovn Energy

Soil Map Unit: Pa-Palms muck

Sampling Date: 9-5-13

Data Point ID: 1W @ Wet 30

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-16	10YR2/1	100					Muck

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
✓ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification PFO1E
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: Rutland

Sampling Date: 9-5-13

County: Jefferson

Applicant: Own Energy

State: New York

Community: NDF

Data Point ID (i.e. 2W@Wet. G): 1U@Wet 3U

Nearest Flag to Data Point: 3U-7

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 10

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-5-13
Data Point ID: 1U@Wet 3U

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sugar maple (Acer saccharinum)	60	yes	FACU
2.			
3.			
4.			
5			
	60 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ostrya virginiana	15	no	FACU
2. Carpinus caroliniana	30	yes	FAC
3. Sugar maple (Acer saccharinum)	55	yes	FACU
4. Yellow birch (Betula alleghaniensis)	20	no	FACW
5			
	120 = Total Cover		

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ramps (Allium tricoccum)	5	no	FACU
2. Wood fern (Dryopteris marginalis)	10	yes	FACU
3. Jack in the pulpit (Arisaema triphyllum)	10	yes	FAC
4. Christmas fern (Polystichum acrostichoides)	5	no	FACU
5			
6.			
7.			
8.			
9.			
10.			
	30 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 1U @ Wet3U

Soil Map Unit: Pa - Palms muck

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-12	10YR 3/3						silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? ~~Yes~~ No
Hydric Soil Present? ~~Yes~~ No
Wetland Hydrology Present? ~~Yes~~ No
Is this Sampling Point Within a Wetland? ~~Yes~~ No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

Stream Inventory

EDR

Observer:
Name: Martin
Weather: Sunny, 60

Project Information:
Name: Copenhagen
Number: 12012 Date: 9-5-13

Stream Name: unnamed

Stream Location (nearest road, structure, etc.) :
3V-48

Adjacent Community: upland forest

Stream Gradient - gentle ✓
- moderate ___
- steep ___

Bank Width: 5ft

Stream Width: 2.5ft

Water Depth: 2in

Substrate:
- Bed Rock ___
- Boulder ✓
- Cobble ✓
- Gravel ✓
- Sand ✓
- Silt ___
- Clay ___

Instream Cover:
- Undercut bank ___
- Overhanging vegetation ✓
- Logs/woody debris ✓
- Deep pools ___
- Other ___

Flow:
- Permanent ✓
- Intermittent ✓

Photo # ___
Flag #'s ___

Additional Comments: ___

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-5-13
County: Jefferson
Applicant: Own Energy State: New York Community: PSS
Data Point ID (i.e. 2W@Wet. G): 1W@Wet 3V Nearest Flag to Data Point: 3V-65

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ✓ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 3
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscurred Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks Associated with small intermittent stream - see stream sheet.

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-15-13
Data Point ID: 1W@ Wet 3V

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp.	60	yes	FACW
2.			
3.			
4.			
5			
	60	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Turtlehead (Chelone elabra)	10	no	OBL
2. Broad leaved cattail (Typha latifolia)	20	yes	FACW
3. Boneset (Eupatorium perfoliatum)	20	yes	FACW
4. Joe Pye weed (Eutrochium purpurea)	15	no	FAC
5 Mint (Mentha arvensis)	25	yes	FACW
6. Juncus sp.	15	no	FACW
7. Jewelweed (Impatiens capensis)	10	no	FACW
8. Blue vervain (Verbena hastata)	10	no	OBL
9.			
10.			
	125	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-5-13

Data Point ID: 1W@Wet 3V

Soil Map Unit: Nn - Newstead silt loam

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-6	10YR 2/1	100					Muck

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
✓ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ 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: Bedrock

Depth (inches): 6

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? (Yes) No

If yes, indicate classification PEM1E/PSS1E
If yes, indicate wetland ID RU-19

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-5-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: Old Field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet 3V
Nearest Flag to Data Point: 3V-65

Investigator(s): Martin, Liddell

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: 12012
Applicant: Own Energy

Sampling Date: 9-5-13
Data Point ID: W(a) Wet 3V

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn (Rhamnus cathartica)	5	yes	FAC
2.			
3.			
4.			
5			
	5	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Upland grasses	100	yes	FACU
2. Canada goldenrod (Solidago canadensis)	20	no	FACU
3. Milkweed (Asclepias syriaca)	10	no	UPL
4. Queen Anne's lace (Daucus carota)	10	no	UPL
5 Aster sp.	5	no	–
6. Thistle (Cirsium vulgare)	10	no	FACU
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Upland grasses not present in wet areas

Project Number: 12012

Applicant: Own Energy

Soil Map Unit: Nn - Newstead silt loam

Sampling Date: 9-5-13

Data Point ID: 1U @ Wet 3V

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 3/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy
State: New York
Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@Wet 3W
Nearest Flag to Data Point: 3W-1

Investigator(s): Martin, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): 8
Depth to Water (inches): –

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

- ___ Obscured Banks
- ___ Well Defined Banks
- ___ Eroded/Undercut Bank
- ___ Deep Pools
- ___ Riffles & Pools
- ___ Overhanging Vegetation
- ___ Vegetated Channel
- ___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1W @ Wet 3W

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Broad leaved cattail (Typha latifolia)	60	yes	OBL
2. Soft rush (Juncus effusus)	20	no	OBL
3. Wet grasses	80	yes	FACW
4. Late goldenrod (Solidago gigantea)	40	yes	FACW
5			
6.			
7.			
8.			
9.			
10.			
	200	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1W Wet 3W

Soil Map Unit: GlA - Galway silt loam, 0-3% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-4	10YR 5/2	100					silt loam
4-12	10YR 4/2	80	10YR 5/3	MA	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy State: New York Community: Ag Field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet3W Nearest Flag to Data Point: 3W-1

Investigator(s): Martin, Moses

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Characteristics

Stream type: ___ Perennial ___ Intermittent

Morphology: Bank Width ___ Stream Width ___ Water Depth ___

Stream Gradient: Gentle ___ Moderate ___ Steep ___

Substrate: Bed Rock ___ Boulder ___ Cobble ___ Gravel ___ Sand ___ Silt ___ Clay ___

Flow: No Flow ___ Gentle ___ Moderate ___ Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-4-13

Data Point ID: U@Wet 3W

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Clover (Trifolium pratense)	80	yes	FACU
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Recently plowed/planted w/ clover

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-4-13

Data Point ID: 1U@3W-1

Soil Map Unit: GlA - Galway silt loam - 0-3% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-9	10YR 4/3	100					silt loam
9-13	10YR 4/4	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy State: New York Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@Wet 3X Nearest Flag to Data Point: 3X-13

Investigator(s): Martin, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 0

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 8
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1W@Wet3X

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Phalaris arundinacia	100	yes	FACW
2. Vicia tetrasperma	10	no	FACU
3. Echinocystis lobata	10	no	FACW
4.			
5			
	100	= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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: 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1W@Wet3x

Soil Map Unit: NIC, Nellis loam, 8-15% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 4/2	100					silt loam
8+	10YR 4/2	85	10YR 6/8	MA	C	PL	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? Yes (No) N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes (No) N/A
Is this Wetland Potentially Isolated? (Yes) No N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy
State: New York
Community: Hay/Lawn
Data Point ID (i.e. 2W@Wet. G): 1U@Wet 3X
Nearest Flag to Data Point: 3X-13

Investigator(s): Martin, Moses

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

No hydrology observed

Project Number: i2012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1U@Wet3X

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Upland grasses	100	yes	FACU
2. Milkweed (Asclepias syriaca)	15	no	UPL
3. Timothy (Phleum pratense)	40	yes	FACU
4. Red clover (Trifolium pratense)	20	no	FACU
5 Old Field cinquefoil (Potentilla simplex)	15	no	FACU
6.			
7.			
8.			
9.			
10.			
	190	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: i 2012

Sampling Date: 9-4-13

Applicant: OWN Energy

Data Point ID: 1(U(8)Wet3X

Soil Map Unit: NIC-Nellis loam, 8-15% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 4/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy State: New York Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@Wet 3Y Nearest Flag to Data Point: 3Y-1+

Investigator(s): Martin, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): —
Depth to Sat. Soil (inches): 10
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1Wet @ Wet 34

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Blue vervain (Verbena hastata)	40	no	OBL
2. Sensitive fern (Onoclea sensibilis)	60	yes	FACW
3. Late goldenrod (Solidago gigantea)	60	yes	FACW
4. Wet grasses	80	yes	FACW
5 Green bulrush (Scirpus atrovirens)	20	no	OBL
6.			
7.			
8.			
9.			
10.			
	260	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012 Sampling Date: 9-4-13

Applicant: OWN Energy Data Point ID: W@Wet3Y

Soil Map Unit: Nn - Newstead silt loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 4/2	80	10YR 6/8	MA	C	M	silt loam
10+	10YR 4/2	70	10YR 6/8	MA	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy State: New York Community: Cowanfield
Data Point ID (i.e. 2W@Wet. G): 1U@Wet 3Y Nearest Flag to Data Point: 3Y-1+

Investigator(s): Martin, Moses

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow ___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle ___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate ___
					Gravel	___			Heavy ___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1U @ Wet 34

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Corn Zea mays	100	yes	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 6 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 2012 Sampling Date: 9-4-13

Applicant: OWN Energy Data Point ID: 1U@W013Y

Soil Map Unit: Nn-Newsted silt loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 3/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stone

Depth (inches): 10

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-4-13

County: Jefferson

Applicant: OWN Energy State: New York Community: PEM

Data Point ID (i.e. 2W@Wet. G): 1W@Wet 32 Nearest Flag to Data Point: 32-19+

Investigator(s): Martin, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): NA
Depth to Sat. Soil (inches): 8
Depth to Water (inches): NA

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: 1WB Wet 32

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Joe Pye Weed (Eutrochium purpurea)	70	yes	FAC
2. Late goldenrod (Solidago gigantea)	40	no	FACW
3. Wet grasses	100	yes	FACW
4. Milkweed (Asclepias syriaca)	10	no	UPL
5 Thistle (Cirsium vulgare)	10	no	FACU
6. Vetch (Vicia tetrasperma)	10	no	FACU
7.			
8.			
9.			
10.			
	240	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 2012 Sampling Date: 9-4-13

Applicant: OWN Energy Data Point ID: PW@WetT3Z

Soil Map Unit: Nn-Newstead silt loam

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 4/2	100					clay loam
8-16	10YR 4/2	30	10YR 6/8	MA	C	M	clay loam
	10YR 7/6	70					

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes (No) If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes (No) If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012 Town: Rutland Sampling Date: 9-4-13
County: Jefferson
Applicant: OWN Energy State: New York Community: Corn Field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet 3Z Nearest Flag to Data Point: 32-19+

Investigator(s): Martin, Moses

Landform: **Hillside/Seep** **Toe of Slope** **Depressional** **Riparian**

Landscape Position: **Flat** **Undulating** **Sloping** **Convex** **Concave**

Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** **No**

Do Normal Circumstances exist on site? **Yes** **No**

Is the area a potential problem area? **Yes** **No**

Is the site significantly disturbed? **Yes** **No**

Approximate Slope (%): 2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Characteristics

Stream type:	Morphology:		Stream Gradient:		Substrate:				Flow:	
___ Perennial	Bank Width	___	Gentle	___	Bed Rock	___	Sand	___	No Flow	___
___ Intermittent	Stream Width	___	Moderate	___	Boulder	___	Silt	___	Gentle	___
	Water Depth	___	Steep	___	Cobble	___	Clay	___	Moderate	___
					Gravel	___			Heavy	___

Adjacent Community Type: ___

Instream Conditions:

___ Obscurred Banks
___ Well Defined Banks
___ Eroded/Undercut Bank
___ Deep Pools
___ Riffles & Pools
___ Overhanging Vegetation
___ Vegetated Channel
___ Other ___

Remarks No hydrology observed

Project Number: 2012

Applicant: OWN Energy

Sampling Date: 9-4-13

Data Point ID: LU@Wet32

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Corn (Zea mays)	100	yes	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Sampling Date: 9-4-13

Applicant: OWN Energy

Data Point ID: LU@Wet 32

Soil Map Unit: Nm- Newstead silt loam

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-10	10YR 4/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Stone

Depth (inches): 10

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No — If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No — If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012

Town: Rutland

Sampling Date: 9-6-13

County: Jefferson

Applicant: Own Energy

State: New York

Community: PSS

Data Point ID (i.e. 2W@Wet. G): 1W@Wet 4B

Nearest Flag to Data Point: 4B-1+

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope (Depressional) Riparian

Landscape Position: Flat Undulating Sloping Convex (Concave)

Is the area a potential problem area? Yes (No)

Is the site significantly disturbed? Yes (No)

Approximate Slope (%): 0

Are climatic/hydrologic conditions on the site typical for this time of year? (Yes) No

Do Normal Circumstances exist on site? (Yes) No

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): —
Depth to Sat. Soil (inches): —
Depth to Water (inches): —

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks

Project Number: 12012

Applicant: Own Energy

Sampling Date: 9-6-13

Data Point ID: 1W @ Wet 4B

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Buckthorn (Rhamnus cathartica)	50	yes	FAC
2. [redacted] (Viburnum lentago)	20	yes	FAC
3. Silky dogwood (Cornus amomum)	20	yes	FACW
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sensitive fern (Onoclea sensibilis)	[redacted] 60	yes	FACW
2. Late goldenrod (Solidago gigantea)	15	no	FACW
3. Green bulrush (Scirpus atrovirens)	>0	no	OBL
4. Blue vervain (Verbena hastata)	15	no	OBL
5			
6.			
7.			
8.			
9.			
10.			
	110	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012

Applicant: Owen Energy

Sampling Date: 9-6-13

Data Point ID: iWet@WetLB

Soil Map Unit: FaB - Farmington loam, 0 to 8% slopes

Soils

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-14	10YR 3/1	100					silt loam
14-24	10YR 5/6	90	7.5YR 3/8	F	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? (Yes) No
Is the wetland a mapped state wetland? Yes (No)

If yes, indicate classification PEMIE
If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Rutland
Sampling Date: 9-6-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: Ag Field
Data Point ID (i.e. 2W@Wet. G): 1U@Wet 4B
Nearest Flag to Data Point: 4B-1+

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ___ No ✓
Saturated Conditions? Yes ___ No ___

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 1201A

Applicant: ONx Energy

Sampling Date: 9-6-13

Data Point ID: 11@Wet 4B

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)			
1. Corn (Zea mays	100	yes	UPL
2.			
3.			
4.			
5			
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
		= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (provide supporting data in remarks)

__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: N2012 Sampling Date: 9-10-13

Applicant: Ovin Energy Data Point ID: 10 @ Wet 4B

Soil Map Unit: FaB, Farmington loam, 0-8% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Redux Features Frequency[1]	Redux Features Type[2]	Redux Features Loc[3]	Texture, Structure, Other
0-10	10YR 3/3	100					silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: stone

Depth (inches): 10

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 9-19-13
County: Lewis
Applicant: Own Energy
State: New York
Community: PEM
Data Point ID (i.e. 2W@Wet. G): 1W@Wet4D
Nearest Flag to Data Point: 4D-30

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 0-2

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ✓ No ___
Saturated Conditions? Yes ✓ No ___

Depth of Water (inches): 3
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks Wetland is located in active pasture. No flags hung. Drains to ditch on adjacent property to the west

Project Number: 12012

Applicant: OWN Energy

Sampling Date: 9-19-13

Data Point ID: 1W@Wet 4D

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
		= Total Cover	

Herb Stratum (Plot size: 5-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Soft rush (Juncus effusus)	40	yes	OBL
2. Boneset (Eupatorium perfoliatum)	15	no	FACW
3. Carex sp.	30	no	FACW
4. Reed Canary Grass (Phalaris arundinacea)	60	yes	FACW
5 Persicaria pensylvanica	10	no	FACW
6. Solidago sp.	10	no	FACW
7.			
8.			
9.			
10.			
	165	= Total Cover	

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- __ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test >50%
- __ Prevalence Index is ≤3.0[1]
- __ Morphological Adaptations[1] (provide supporting data in remarks)
- __ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Project Number: 12012 Sampling Date: 9-19-13

Applicant: OWN Energy Data Point ID: 1W(a) Wetland 4D

Soil Map Unit: MaA-Canandaigua silt loam, 0-2% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	GLEY1 6/10Y	100					clay loam
8+	10YR 5/1	100					sandy loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common

[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
✓ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? (Yes) No
Hydric Soil Present? (Yes) No
Wetland Hydrology Present? (Yes) No
Is this Sampling Point Within a Wetland? (Yes) No

Hydrologic Connectivity to Off-site Wetlands? (Yes) No N/A
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? (Yes) No N/A
Is this Wetland Potentially Isolated? Yes (No) N/A

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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DATA FORM
ROUTINE WETLAND DETERMINATION
Northcentral and Northeast Regional Supplement

274 North Goodman Street
Rochester, New York 14607

Project Number: 12012
Town: Denmark
Sampling Date: 9-19-13
County: Jefferson
Applicant: Own Energy
State: New York
Community: Pasture
Data Point ID (i.e. 2W@Wet. G): 1W@Wet 4D
Nearest Flag to Data Point: 4D-30

Investigator(s): Martin, Liddell

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-5

Hydrology

Primary Indicators (min. - 1 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 (min. - 2 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 (D-1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes ____ No ✓
Saturated Conditions? Yes ____ No ✓

Depth of Water (inches): –
Depth to Sat. Soil (inches): –
Depth to Water (inches): –

Stream Association (Take a Stream Inventory Data Form for each stream identified in Study Area)

Record observations (e.g. location, stream type, adjacent community type, state protected etc.) of any streams within or adjacent to the Study Area:

Remarks No hydrology observed

Project Number: 12012
Applicant: OWN Energy

Sampling Date: 9-19-13
Data Point ID: UL@Wet-4B

Vegetation

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5			
	= Total Cover		

Herb Stratum (Plot size: 5-foot radius)			
1. Red clover (Trifolium pratense)	100	yes	FACU
2. Red fescue (Festuca rubra)	40	yes	FACU
3. Thistle (Circium vulgare)	30	yes	FACU
4. Solidago sp.	10	no	FACU
5			
6.			
7.			
8.			
9.			
10.			
	180 = Total Cover		

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5			
	= 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (provide supporting data in remarks)
__ Problematic Hydrophytic Vegetation[1] (explain in remarks)

[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 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Remarks

Heavily grazed pasture.

Project Number: 12012 Sampling Date: 9-19-13

Applicant: OWN Energy Data Point ID: 1U@Wet4D

Soil Map Unit: MaA - Canandaigua silt loam, 0-2% slopes

Soils Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators).

Depth (inches)	Matrix Color (moist)	Matrix %	Redux Features Color (moist)	Frequency[1]	Type[2]	Loc[3]	Texture, Structure, Other
0-8	10YR 4/3	100					silt loam
8-16	10YR 4/3	95	10YR 6/8	F	C	M	silt loam

[1]Frequency: F=Few, MA=Moderately Abundant, C=Common
[2]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
[3]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Problematic Hydric Soil Indicators[3]

___ 2 cm Muck (A10)
___ Coast Prairie Redox (A16)
___ 5 cm Mucky Peat or Peat (S3)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8)
___ Thin Dark Surface (S9)
___ Iron-Manganese Masses (F12)
___ Piedmont Floodplain Soils F19)
___ Mesic Spodic (TA6)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks

Wetland Determination

Hydrophytic Vegetation Present? Yes (No)
Hydric Soil Present? Yes (No)
Wetland Hydrology Present? Yes (No)
Is this Sampling Point Within a Wetland? Yes (No)

Hydrologic Connectivity to Off-site Wetlands? Yes No (N/A)
Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No (N/A)
Is this Wetland Potentially Isolated? Yes No (N/A)

Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

Stream Inventory

EDR

Observer:
Name: Martin Liddell
Weather: Sunny

Project Information:
Name: Copenhagen
Number: 12012 Date: 9-19-13

Stream Name: _____

Stream Location (nearest road, structure, etc.) :
Wet 4E

Adjacent Community: Upland forest

Stream Gradient - gentle ___
- moderate ✓
- steep ___

Bank Width: 40'

Stream Width: 6'

Water Depth: 3-6"

Substrate:
- Bed Rock ✓
- Boulder ✓
- Cobble ✓
- Gravel ✓
- Sand ___
- Silt ___
- Clay ___

Instream Cover:
- Undercut bank ___
- Overhanging vegetation ✓
- Logs/woody debris ✓
- Deep pools ___
- Other _____

Flow:
- Permanent ✓
- Intermittent ___

Photo # _____

Flag #'s _____

Additional Comments: Surrounding forest dominated by Hemlock, Beech, & Sugar Maple. Very steep gorge down to stream. Observed stream from above.

APPENDIX C

Photos of Representative Wetland Communities

PHOTO 01:

Representative emergent wetland (L)

PHOTO 02:

Representative emergent wetland (V)

PHOTO 03:

Representative emergent wetland (X)

PHOTO 04:

Representative emergent wetland (Z)

PHOTO 05:

Representative emergent wetland (3B)

PHOTO 06:

Representative emergent wetland (3F)

PHOTO 07:

Representative emergent wetland (3Q)

PHOTO 08:

Representative emergent wetland (4A)

PHOTO 09:

Representative scrub/shrub wetland (I)

PHOTO 10:

Representative scrub/shrub wetland (I)

PHOTO 11:

Representative scrub/shrub wetland (II)

PHOTO 12:

Representative scrub/shrub wetland (JJ)

PHOTO 13:

Representative scrub/shrub wetland (MM)

PHOTO 14:

Representative scrub/shrub wetland (3O)

PHOTO 15:

Representative forested wetland (EE)

PHOTO 16:

Representative forested wetland (WW)

PHOTO 17:

Representative forested wetland (3J)

PHOTO 18:

Representative forested wetland (3N)

PHOTO 19:

Representative forested wetland (4C)

PHOTO 20:

Representative open water wetland/pond (Q)

PHOTO 21:

Representative open water wetland/pond (S)

PHOTO 22:

Representative open water wetland/pond (U)

PHOTO 23:

Representative open water wetland/pond (LL)

PHOTO 24:

Representative open water wetland/pond (3B)

PHOTO 25:

Representative stream (N)

PHOTO 26:

Representative stream (Q)

PHOTO 27:

Representative stream (CC)

PHOTO 28:

Representative stream (3C)

PHOTO 29:

Representative stream (3E)

PHOTO 30:

Representative stream (3F)

PHOTO 31:

Representative stream (3H – tributary to Deer River)

PHOTO 32:

Deer River near proposed overhead line crossing (looking southwest)

PHOTO 33:

Deer River near proposed overhead line crossing (looking northeast)

PHOTO 34:

Representative mixed wetland community (3O)