

## Water Resources Delineation Report

# 20.15 Acres, Lincoln Highway, Kane County, Illinois

July 7, 2023

Prepared for: KaneSolar03 LLC 330 W Goethe Street, Chicago, Illinois 60610

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## **Executive Summary**

1

The 20.15-acre study area is located east of the intersection of Lincoln Highway and Watson Road in Kane County, Illinois within Section 04, Township 39 North, Range 6 East. A water resources delineation was performed by Heather Bobich on June 27th, 2023.

The study area encompasses approximately 20.15 acres of privately owned agricultural land. Additional agricultural fields border the site to the east and west, and a large wetland complex borders the site to the immediate south.

A map of the location and size of the water resources identified on the property is shown in Appendix A. Two wetlands were delineated during the June site visit. One 5.58 acre farmed wetland is adjacent to the northern portion of the study area, but does not encroach the property under survey. Approximately 0.07 acre of a large emergent/scrub-shrub wetland complex encroaches the south edge of the survey area. (Table 1). Both wetlands exhibit no hydrologic connection to a traditionally navigable waterway and are likely isolated wetlands.

ID	Туре	Latitude	Connectivity to Waters of the U.S. <sup>1</sup>	Total Area Within Study Area (Acres/LF)	
Wetland A	Forested	41.8902228°N	88.5524184°W	Isolated	0.07
Wetland B	Emergent	41.8934619°N	88.5534056°W	Isolated	0

Table 1. Water Resources Delineated on Site	Table 1.	Water Resources	Delineated	on Site
---------------------------------------------	----------	-----------------	------------	---------

The final determination of a wetlands' connectivity to Waters of the U.S. is made by the US Army Corps of Engineers.

## Introduction

#### Study Area Description and Location

The 20.15-acre study area is located in Kaneville Township, Kane County, Illinois (Appendix B). The area is located east of the intersection of Lincoln Highway and Watson Road (Appendix C).

The study area contains an agricultural field with a tree line along the east boundary dominated by scattered black cherry (Prunus serotina), white mulberry (Morus alba), hackberry (Celtis occidentalis), and a few large bur oaks (*Quercus macrocarpa*). An aerial photograph of the study area is included in Appendix D. Surrounding land use is predominantly occupied by forests, rural residences, and agricultural fields.

#### Secondary Source Information

The study area is shown on the Maple Park Quadrangle of the United States Geological Survey (USGS) map (Appendix E). The study area is between 869 and 880 feet above sea level.

A National Wetlands Inventory (NWI) map showing nearby NWI wetlands is located in Appendix F. No mapped wetlands are shown within the study area boundary.

A map from the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey showing the soil types located on and adjacent to the site is found in Appendix G. The Hydric Soils of the United States (1991) was reviewed to determine potential hydric soils identified within the study area. Table 2 provides a list of soil types mapped for the site.

Map Unit	Soil Description	Hydric Determination <sup>1</sup>				
198A	Elburn silt loam, 0 to 2 percent slopes	Non-hydric				
152A	Drummer silty clay loam, 0 to 2 percent slopes	Hydric				
656B	Octagon silt loam, 2 to 4 percent slopes	Non-hydric				
103A	Houghton muck, 0 to 2 percent slopes	Hydric				
<sup>1</sup> As determined by The Hydric Soils of the United States (1001)						

Table 2. Soil	Types Mapped f	for the Site
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As determined by The Hydric Soils of the United States (1991).

### Methodology

The Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (US Army Corps of Engineers 2012) were used in delineating wetlands within the study area. Water resources were delineated and surveyed on June 27th, 2023. The water resources delineation fieldwork, boundary mapping, and data analysis were performed by Heather Bobich. Vegetation, soils, and wetlands maps were prepared using using ArcGIS<sup>™</sup> PRO v.2.8.3. Photopoints, data points, stream lines, and wetland areas were mapped and collected using a Trimble® GNSS R1 device.

Streams are identified as linear, flowing water features with defined beds and banks and are classified as ephemeral, intermittent, or perennial based upon flow regime. Ephemeral streams have flowing water only during, and for a short duration after, precipitation events. Intermittent streams have seasonally flowing water, when groundwater and rainfall provide water for stream flow. During dry periods intermittent streams may not have flowing water. Perennial streams have flowing water year-round, receiving water from groundwater and rainfall runoff.

Wetlands are identified based on three criteria: vegetation, soils, and hydrology. An area must meet all three criteria to be considered a jurisdictional wetland. Sampling points were established in the field to determine wetlands boundaries. Data sheets reporting the results of soils, vegetation, and hydrology analyses were completed for each sample station and are located in Appendix J.

Soil samples were obtained to determine the extent of hydric soils on the site. A standard Munsell soil color chart was used to determine the hue, value, and chroma of each soil sample. Soil samples were taken to a depth to adequately make a hydric soil determination. Criteria established by the National Technical Committee for Hydric Soils (1991) were used to determine hydric soils.

Wetland hydrology was characterized during this water resources delineation. Inundation and/or soil saturation were noted for each sample point. Other hydrological indicators, including watermarks, drift lines, sediment deposits, wetlands drainage patterns, blackened leaves, morphological indicators, iron/manganese concretions, and oxidized root zones within the upper soil layers, were documented, if observed.

Quantitative vegetation data were collected at each sampling point. Dominance was estimated by percent areal cover. Four strata were considered for each sample point—trees, saplings/shrubs, herbs, and woody vines. Trees were defined as any woody plant having a diameter at breast height (DBH) greater than 3.0 inches. Saplings and shrubs were those woody plants with a DBH of less than 3.0 inches and greater than 3.2 feet in height. For each stratum, plant species within a plot were identified and percent areal cover was estimated for each species. Thirty-foot-radius plots were used for trees and vines; 15-foot-radius plots were used for saplings and shrubs; and 5-foot-radius plots were used for herbs.

Any species within a stratum comprising 20% or more of the total plot areal cover was considered to be dominant. Dominant species within all strata were then added to determine the percentage of wetlands vegetation for each sample point. The wetlands vegetation criterion was met if greater than 50% of the dominant vegetation was indicative of wetlands conditions.

Plants with an indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) were considered to be indicative of wetlands conditions. Plants with an indicator status of facultative upland (FACU) or upland (UPL) were considered to be indicative of upland conditions. Plants that could only be identified to genus were sometimes assigned an indicator status based on the professional judgment of Davey Resource Group. These plants were classified as wetlands indicator species (WIS) or upland indicator species (UIS). See Appendix I for a more detailed explanation of wetlands vegetation indicator statuses.

Wetlands that are hydrologically connected to traditional navigable waters of the United States are considered non-isolated and fall under the federal jurisdiction of the U.S. Army Corps of Engineers (USACE).

### Results

#### WETLANDS

#### Vegetation

The site contains planted agricultural fields. Photograph locations are shown in Appendix A. Photographs showing water resources identified on the site are included in Appendix H. Wetland assessment data forms are included in Appendix J.

Wetland A (0.07 acre on-site) Dominant vegetation includes black willow (*Salix nigra*, OBL) and reed canary grass (*Phalaris arundinacea*, FACW). Non-dominant vegetation observed includes giant ragweed (*Ambrosia trifida*, FAC).

Adjacent upland vegetation is dominantly corn (Zea mays, UPL).

Wetland B (5.58 acre, emergent – entirely off-site) Dominant vegetation includes straw-colored flat sedge (*Cyperus strigosus*, FACW) and pigweed (*Amaranthus retroflexus*, FACU). Non-dominant vegetation observed includes giant soybeans (*Glycine max*) and hairy crab grass (*Digitaria sanguinalis*, FACU).

Adjacent upland vegetation is dominantly corn (Zea mays, UPL).

#### Soils

All wetlands delineated on site contained hydric soils. Both wetlands met the Redox Dark Surface (F6) hydric soil indicator.

#### Hydrology

Hydrology present in the study area derives from overland flow. The wetlands coincide with low areas with pooling water within agricultural fields. The primary hydrologic indicator identified was Drift Deposits (B3). Secondary indicators identified included Surface Soil Cracks (B6), Geomorphic position (D2), and FAC-Neutral test (D5). Table 4 shows the hydrology indicators observed in each wetland.

This wetlands are not hydrologically connected to a traditionally navigable waterway and are likely considered isolated.

Wetland	Primary Indicator Numbers Primary Indicator Descriptions		Secondary Indicator Numbers	Secondary Indicator Descriptions	
А			D2, D5	Geomorphic Position, FAC-Neutral Test	
В	B3	Drift Deposits	B6, D2, D5	Surface Soil Cracks, Geomorphic Position, FAC-Neutral Test	

#### Table 3. Hydrology Indicators for On-Site Wetlands

#### Conclusions

Two wetlands were found within or near the study area. One 5.58 acre farmed wetland is adjacent to the study area. One 0.07 acre emergent wetland is located along the southern border of the study area.

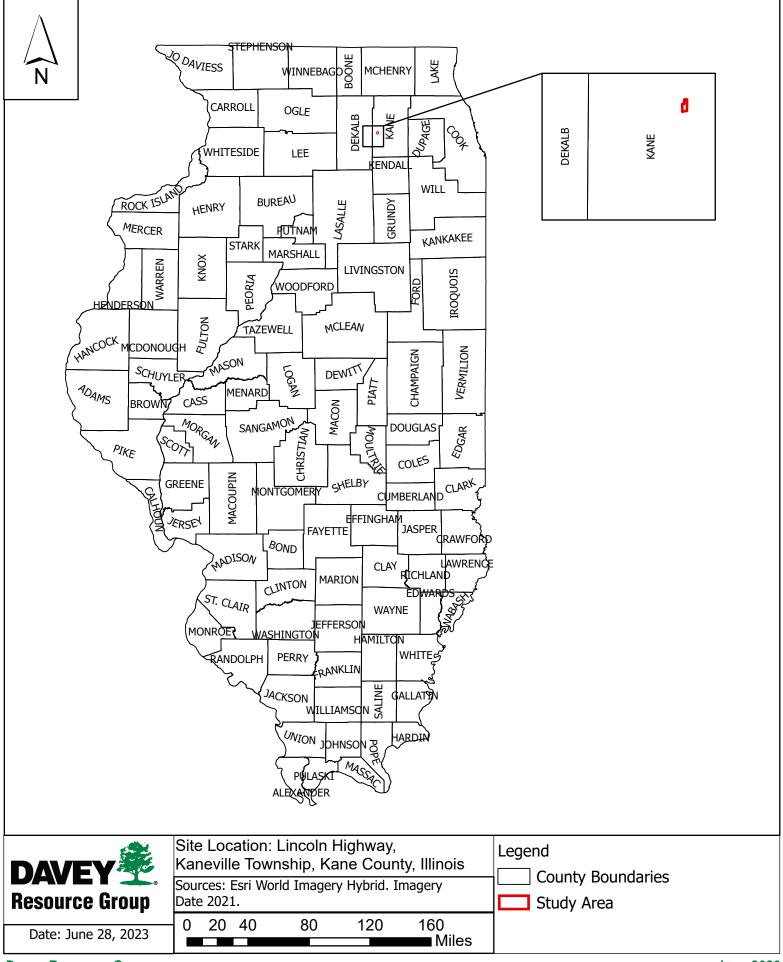
All water resource studies conducted by Davey Resource Group are objective and based strictly on professional judgment. Davey Resource Group and its employees have no vested interest in this property or the proposed project. Appendix K contains references used in the creation of this report.

All wetlands delineations must be verified by the US Army Corps of Engineers to be considered official. This wetlands delineation is reflective of environmental conditions at the time the

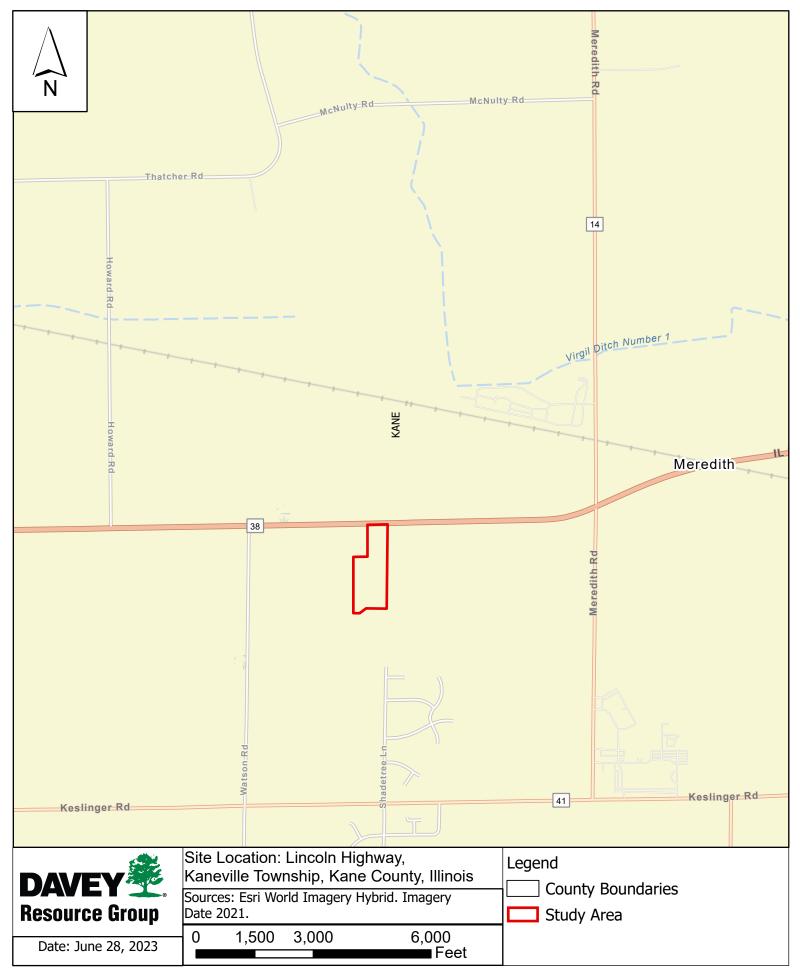
## Appendix A: Mapped Water Resources



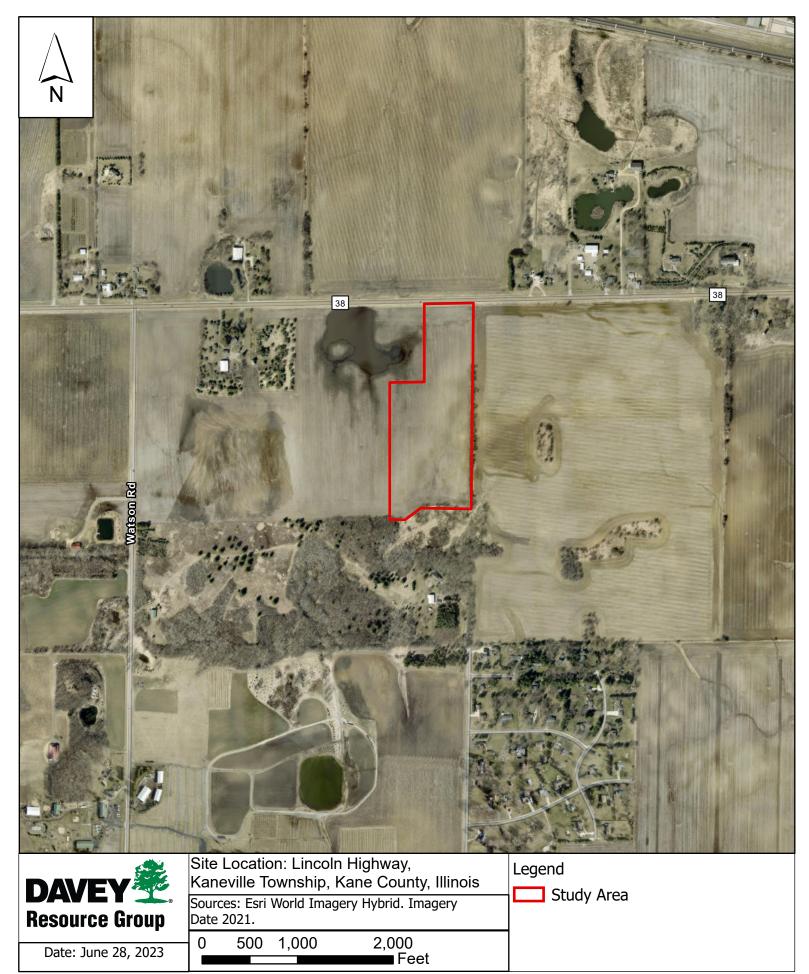
## Appendix B: Project Area on Illinois County Map



## Appendix C: Study Area on Highway Map

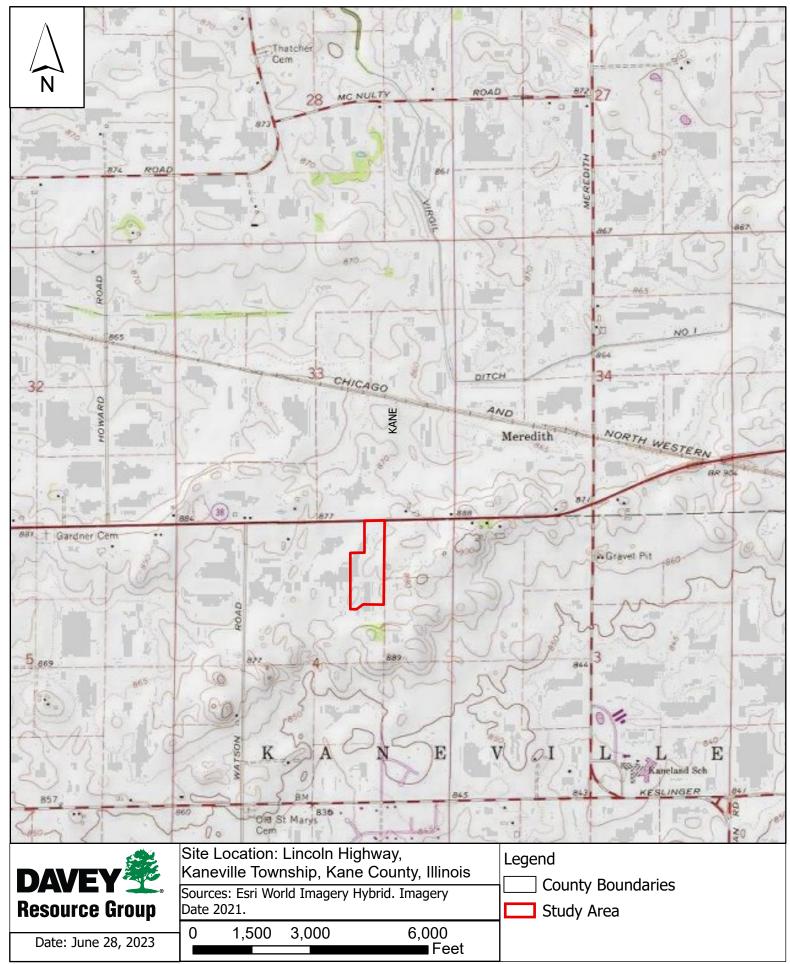


## Appendix D: Study Area on Aerial Photograph

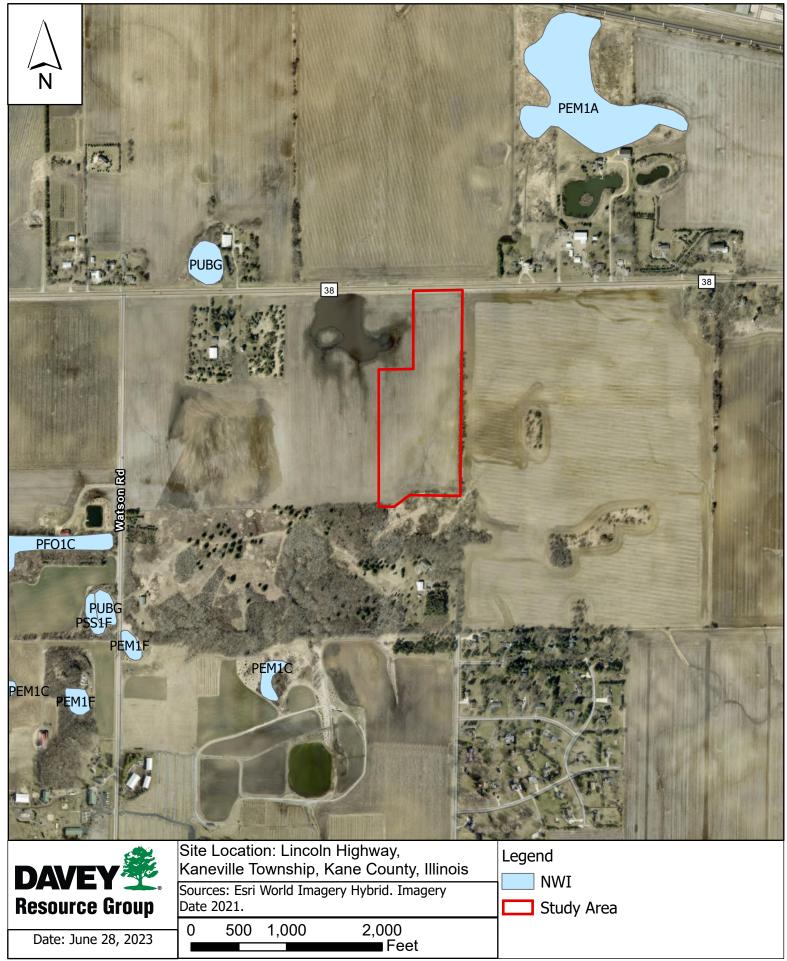


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## Appendix E: Study Area on USGS 7.5 Minute Topographic Map

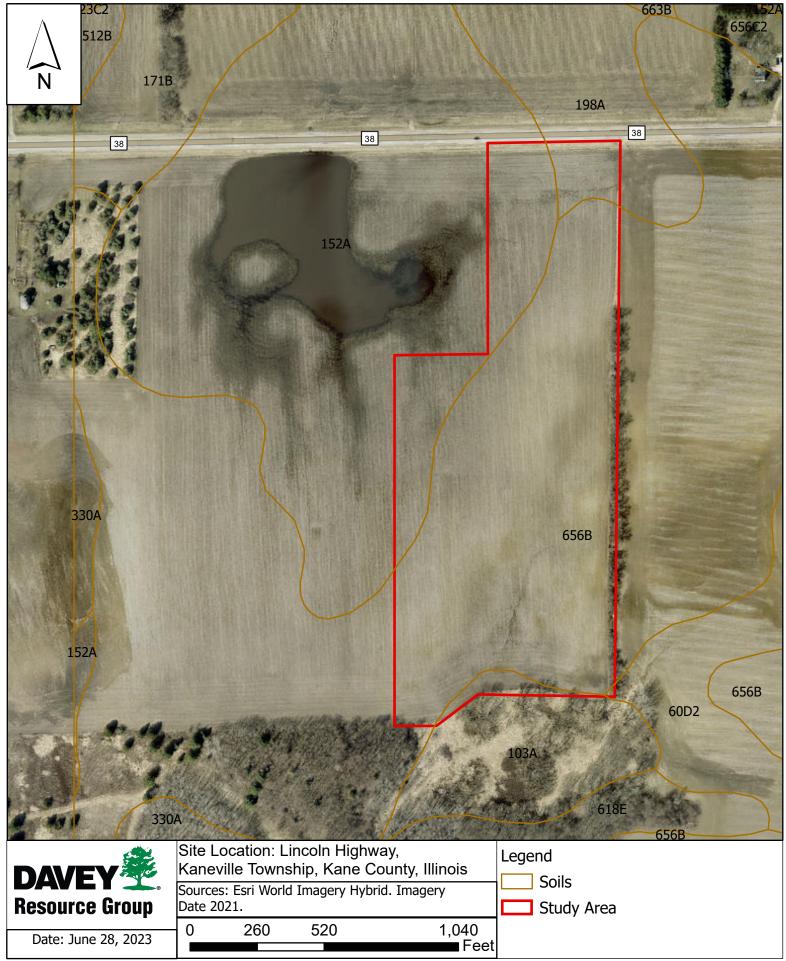


## Appendix F: Study Area on National Wetland Inventory Map



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## Appendix G: Study Area on National Soil Survey Map



## Appendix H Site Photographs



DP 1, View looking north



DP 1, View looking east



DP 1. View looking south



DP 1. View looking west



DP 2. View looking north



DP 2. View looking east



DP 2. View looking south



DP 2. View looking west



DP 3. View looking north



DP 3. View looking east



DP 3. View looking south



DP 3. View looking west



DP 4. View looking north



DP 4. View looking east



DP 4. View looking south



DP 4. View looking west



PP1. View looking north



PP1. View looking east



PP1. View looking south



PP1. View looking west



PP2. View looking north



PP2. View looking east



PP2. View looking south



PP2. View looking west



PP3. View looking east



PP3. View looking west



PP4. View looking north



PP4. View looking east



PP4. View looking south



PP4. View looking west

## Appendix I

# Definition of Wetlands Vegetation Indicator Status (from Lichvar et al 2016)

**Obligate Wetlands (OBL).** Almost always is a hydrophyte, rarely in uplands.

Facultative Wetlands (FACW). Usually is a hydrophyte but occasionally found in uplands.

Facultative (FAC). Commonly occurs as either a hydrophyte or non-hydrophyte.

Facultative Upland (FACU). Occasionally is a hydrophyte but usually occurs in uplands.

**Obligate Upland (UPL).** Rarely is a hydrophyte, almost always in uplands.

Species for which little or no information was available to base an indicator status were assigned a no indicator (NI) status. An asterisk (\*) after the indicator status indicates that the indicator status was based on limited ecological information.

The wetlands indicator categories should not be equated to degrees of wetness. Many obligate wetlands species occur in permanently or semipermanently flooded wetlands, but a number of obligates also occur, and some are restricted to wetlands that are only temporarily or seasonally flooded. The facultative upland species include a diverse collection of plants that range from weedy species adapted to exist in a number of environmentally stressful or disturbed sites (including wetlands), to species in which a portion of the gene pool (an ecotype) always occurs in wetlands. Both the weedy and ecotype representatives of the facultative upland category occur in seasonally and semipermanently flooded wetlands.

Davey Resource Group has added two additional indicators for situations when plants can only be identified to genus. A Wetlands Indicator Species (WIS) is a plant that is most likely obligate wetlands, facultative wetlands, or facultative. An Upland Indicator Species (UIS) is a plant that is most likely indicative of upland or facultative upland conditions. These additional indicators are used when species identification is not possible. A variety of factors are part of the UIS and WIS assignments. Indicator statuses of all locally occurring members of the genus in question are considered, as are the health and size of the population and the indicator status of nearby plants.

Appendix J Vegetation, Hydrology, and Soils Data Sheets

#### WETLAND DETERMINATION DATA FORM – Midwest Region

pplicant/Owner:       Horizon Solar Power       State:       Illinois       Sampling Point:       DP1         westigator(s):       Heather Bobich       Section, Township, Range:       S4 T39N R6E         andform (hillidope, terrace, etc.):       Depression       Local relief (concave, convex, none):       Concave         lope (%):       2       Lat:       41.8902056       Log::       PBC         idmap Unit Name:       103A - Houghton muck, 0 to 2 percent slopes       NWI classification:       PFO         re climatic / hydrologic conditions on the site typical for this time of year?       Yes        No (ff no.explain any answers in Remarks.)         re Vegetation       _ Soil       _, or Hydrology       _ naturally problematic?       (if needed, explain any answers in Remarks.)         re Vegetation       _ Soil       _, or Hydrology       _ naturally problematic?       (if needed, explain any answers in Remarks.)         re Vegetation       _ Soil       _, or Hydrology       _ naturally problematic?       (if needed, explain any answers in Remarks.)         re Vegetation       _ Soil       _, or Hydrology       _ naturally problematic?       If needed, explain any answers in Remarks.)         re Udgetation Present?       Yes       V       No
andform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Datum: WGS 84
andform (hillslope, terrace, etc.): DepressionLorg: -88.5520816Datum: WCS 84Datum: WCS 84NoNONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONONO
oil Map Unit Name:       103A - Houghton muck, 0 to 2 percent slopes       NWI classification:       PFO         re climatic / hydrologic conditions on the site typical for this time of year? Yes       No
re climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) re Vegetation Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No re Vegetation Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Remarks:   Tege Stratum (Plot size:) Absolute Dominant Indicator 1. Salix nigra 30 Court Species? Status 1. Salix nigra 30 OBL 2 Total Cover Prevalence Index worksheet: 1 (Plot size:) Absolute OBL 3 Total Cover Absolute OBL 3 Total Cover Frevalence Index worksheet: 1 (Plot size:) Absolute OBL 3 Total Cover Absolute OBL 3 Ac oBL, FACW, or FAC: 100 (A/B) 4 Absolute Absolute Absolute Are OBL, FACW, or FAC: 100 (A/B) 4 Absolute Absolute Absolute Absolute Absolute Absolute Absolute Are OBL, FACW, or FAC: 2 Absolute
re Vegetation
re Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  FUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No is the Sampled Area within a Wetland? Yes No Wetland Hydrology Present? Yes No is the Sampled Area within a Wetland? Yes No  Remarks:   FEGETATION - Use scientific names of plants.  Free Stratum (Plot size:)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       V       No       Is the Sampled Area within a Wetland?       Yes       V       No       Ves       V       No       Is the Sampled Area within a Wetland?       Yes       V       No       Ves       Ves
Hydrophytic Vegetation Present?       Yes       ✓       No       Is the Sampled Area within a Wetland?       Yes       ✓       No         Hydric Soil Present?       Yes       ✓       No       within a Wetland?       Yes       ✓       No
Hydric Soil Present?       Yes       ✓       No       Is the Sampled Area within a Wetland?       Yes       ✓       No         Wetland Hydrology Present?       Yes       ✓       No       is the Sampled Area within a Wetland?       Yes       ✓       No
Hydric Soil Present?       Yes       ✓       No       Is the Sampled Area within a Wetland?       Yes       ✓       No         Wetland Hydrology Present?       Yes       ✓       No       is the Sampled Area within a Wetland?       Yes       ✓       No
Remarks:         Remarks: <b>/EGETATION</b> – Use scientific names of plants.         Tree Stratum (Plot size:)       Absolute Species? Status         1. Salix nigra       30 $\checkmark$ OBL       Number of Dominant Species         2
TEGETATION – Use scientific names of plants.         Tree Stratum (Plot size:)       Absolute $\frac{Species?}{Status}$ Dominant Indicator $\frac{Species?}{V}$ Dominant Indicator $\frac{Species?}{V}$ Dominant Species $\frac{Status}{That Are OBL}$ , FACW, or FAC: $\frac{2}{2}$ (A)         2.
Tree Stratum (Plot size:)Absolute % CoverDominant Indicator Species?Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: $2$ 2Number of Dominant Species That Are OBL, FACW, or FAC: $2$ (A)3(B)4(B)Sapling/Shrub Stratum (Plot size:)
Tree Stratum (Plot size:)Absolute % CoverDominant Indicator Species?Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: $2$ 2Number of Dominant Species That Are OBL, FACW, or FAC: $2$ (A)3(B)4(B)Sapling/Shrub Stratum (Plot size:)
Tree Stratum (Plot size:)Absolute % CoverDominant Indicator Species?Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: $2$ 2Number of Dominant Species That Are OBL, FACW, or FAC: $2$ (A)3(B)4(B)2
Tree Stratum (Plot size:) $\frac{\% \text{ Cover}}{30}$ Species?Status OBLNumber of Dominant Species That Are OBL, FACW, or FAC: 2(A)2Total Number of Dominant Species Across All Strata: 2(B)4Percent of Dominant Species That Are OBL, FACW, or FAC: 100(A/B)5Percent of Dominant Species That Are OBL, FACW, or FAC: 100(A/B)Sapling/Shrub Stratum (Plot size:)123456
1. Salix nigra       30 $\checkmark$ OBL       Initial of Dominant Species       2       (A)         2.          That Are OBL, FACW, or FAC:       2       (A)         3.           Total Number of Dominant       Species Across All Strata:       2       (B)         4.            Percent of Dominant Species         5.                1.                2.                3.                4.                5.                1.                 2. </td
2.
3.
4.
5.
Sapling/Shrub Stratum (Plot size:) $30\%$ = Total CoverPrevalence Index worksheet:1Total % Cover of:Multiply by:2OBL species $30$ x 1 = $30$ x 1 = $30$ 3FACW species $100$ x 2 = $200$ FAC species $5$ x 3 = $15$ 5FACU species $0$ x 4 = $0$ $=$ Total CoverUPL species $0$ x 5 = $0$ $x = 10$
1.       Total % Cover of:       Multiply by:         2.       OBL species $30$ $x = 30$ 3.       FACW species $100$ $x = 2200$ 4.       FAC species $5$ $x = 15$ $=$ Total Cover       UPL species $0$ $x = 0$
2.OBL species $30$ $x = 30$ 3.FACW species $100$ $x = 2200$ 4.FAC species $5$ $x = 15$ 5.FAC uspecies $0$ $x = 0$ $x = Total Cover$ UPL species $0$
3.FACW species $100$ $x = 200$ 4.FAC species $5$ $x = 15$ 5.FACU species $0$ $x = 0$ $x = Total Cover$ UPL species $0$ $x = 0$
4.FAC species $5$ $x \ 3 = 15$ 5.FAC species $0$ $x \ 4 = 0$ $x \ 1 = Total Cover$ UPL species $0$ $x \ 5 = 0$
5 FACU species $0$ $x 4 = 0$ UPL species $0$ $x 5 = 0$
= Total Cover UPL species $0$ x 5 = $0$
Herb Stratum (Plot size:) Column Totals: 135 (A) 245 (B)
1. Phalaris arundinacea 100 V FACW
2. Ambrosia trifida 5 FAC Prevalence Index = B/A = 1.81
3 Hydrophytic Vegetation Indicators:
4 1 - Rapid Test for Hydrophytic Vegetation
5 2 - Dominance Test is >50%
6 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8 Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10
Woody Vine Stratum (Plot size:)
1 Hydrophytic
2 Vegetation Present? Yes No
= Total Cover
Remarks: (Include photo numbers here or on a separate sheet.)

L

#### SOIL

Profile Desc	ription: (Describe	to the de	pth needed to docu	ment the	indicator	or confir	m the absence of indicators.)	
Depth	Matrix			ox Feature			-	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks	
0-8	10YR 2/1	100					Silt Loam	_
8-20	10YR 2/1	95	10YR 3/4	5	<u>C</u>	PL	Silty Clay Loam	_
20-24	10YR 4/1		10YR 3/1	3	С	М	Silty Clay Loam	
-								_
								_
								_
								_
								_
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RN	I=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol	. ,			Gleyed M			Coast Prairie Redox (A16)	
· — ·	pipedon (A2)			Redox (S	,		Dark Surface (S7)	
	stic (A3)		Stripped Matrix (S6)				Iron-Manganese Masses (F12)	
Hydrogen Sulfide (A4)		Loamy Mucky Mineral (F1)			Very Shallow Dark Surface (TF12)			
Stratified Layers (A5) 2 cm Muck (A10)		Loamy Gleyed Matrix (F2) Depleted Matrix (F3)			Other (Explain in Remarks)			
		o (A11)						
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)		<ul> <li>Redox Dark Surface (F6)</li> <li>Depleted Dark Surface (F7)</li> </ul>			)	<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy Mucky Mineral (S1)		Redox Depressions (F8)			/	wetland hydrology must be present,		
· · ·	icky Peat or Peat (S	3)	,			unless disturbed or problematic.		
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Present? Yes No	-
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	ators (minimum of o	ne is requ	ired; check all that a	pply)			Secondary Indicators (minimum of two required	<u>(</u>
Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		Surface Soil Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B13)				Drainage Patterns (B10)		

High Water Table (A2)		Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)		True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		Oxidized Rhizospheres on Living F	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled So	ils (C6) 🛛 🖌 Geomorphic Position (D2)
Iron Deposits (B5)		Thin Muck Surface (C7)	✓ FAC-Neutral Test (D5)
Inundation Visible on Aer	ial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Cond	cave Surface (B8)	Other (Explain in Remarks)	
Field Observations:			
Surface Water Present?	Yes No _	✓ Depth (inches):	
Water Table Present?	Yes No _	Depth (inches):	
Saturation Present? Yes No _		✓ Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)		vien well, enviolated and view income	

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

Remarks:

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Hatch Solar Farm	City/County: Maple Park	/ Kane	Sampling Date: 2023-06-27	
Applicant/Owner: Horizon Solar Power		State: Illinois	Sampling Point: DP2	
Investigator(s): Heather Bobich	Section, Township, Range:	S9 T39N R6E		
Landform (hillslope, terrace, etc.): Flat		cave, convex, none):	None	
Slope (%): 0 Lat: 41.8902599	Long: -88.5520981		Datum: WGS 84	
Soil Map Unit Name: 103A - Houghton muck, 0 to 2 percent	t slopes	NWI classific	ation: None	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🔽 No	_ (If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Norm	nal Circumstances" p	present? Yes 🖍 No	
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed	l, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.				

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes     No       Yes     No       Yes     No	Is the Sampled Area within a Wetland?	Yes No
Remarks:			

#### **VEGETATION** – Use scientific names of plants.

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover Species?</u> Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC: 0 (A)
2		Total Number of Dominant
3		Total Number of Dominant Species Across All Strata: 0 (B)
4		
		Fercent of Dominant Opecies
5		That Are OBL, FACW, or FAC: <u>NaN</u> (A/B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
		Total % Cover of: Multiply by:
1		$\begin{array}{c} \hline \\ OBL species \\ \hline \\ 0 \\ \end{array}$
2		
3		FACW species $0$ $x 2 = 0$
4		FAC species $0$ x 3 = $0$
5		FACU species 0 x 4 = 0
	= Total Cover	UPL species 0 x 5 = 0
Herb Stratum (Plot size:)		Column Totals: 0 (A) 0 (B)
1. Zea mays	100 🖌	
2		Prevalence Index = B/A = NaN
3.		Hydrophytic Vegetation Indicators:
4		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
5		$\sim$ 3 - Prevalence Index is $\leq 3.0^{1}$
6		
7		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9		
10		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	100% = Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		
1		Hydrophytic
2		Vegetation Present? Yes No
	= Total Cover	Present? Tes No
Remarks: (Include photo numbers here or on a separate	sheet.)	

#### SOIL

	iption. (Describe			maioator o		n the absence of in	nuloators./
Depth	Matrix		Redox Feature	es			
(inches)	Color (moist)	%	Color (moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 12	10YR 2/1	100				Silt Loam	
12 <sup>-</sup> 16	10YR 2/1	100				Silty Clay Loam	
-							
				·			
-				·			
-							
<sup>1</sup> Type: C=Co	ncentration, D=Dep	pletion, RM=I	Reduced Matrix, MS=Maske	d Sand Gra	ins.	<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:					Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol (	. ,		Sandy Gleyed M	atrix (S4)		Coast Prai	rie Redox (A16)
	ipedon (A2)		Sandy Redox (S	,		Dark Surfa	. ,
Black His	. ,		Stripped Matrix (	,			anese Masses (F12)
	n Sulfide (A4) Layers (A5)		Loamy Mucky M	, ,			ow Dark Surface (TF12)
2 cm Mud	2 . ,		Loamy Gleyed M				olain in Remarks)
	Below Dark Surfac	ce (A11)	Redox Dark Sur				
· — ·	rk Surface (A12)		Depleted Dark S	1 1		<sup>3</sup> Indicators of h	hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Redox Depressi	ons (F8)		wetland hy	drology must be present,
	cky Peat or Peat (S					unless dist	urbed or problematic.
Restrictive L	ayer (if observed)	:					
						Hydric Soil Pre	sent? Yes No 🖌
Depth (inc	hes):						
Remarks:							
Soil too	compacted	to dia a	deeper than 16"				
			·				
			•				
			•				
HYDROLOG							
Wetland Hyd	rology Indicators:						
Wetland Hyd	rology Indicators:		ed: check all that apply)			Secondary In	ndicators (minimum of two required)
Wetland Hyd Primary Indica Surface V	Irology Indicators: ators (minimum of o Water (A1)		ed: check all that apply) Water-Stained Lea	. ,		Surface	Soil Cracks (B6)
Wetland Hyd Primary Indica Surface V High Wat	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2)		ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1:	3)		Surface Drainag	Soil Cracks (B6) e Patterns (B10)
Wetland Hyd Primary Indica Surface V High Wat Saturatio	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3)		ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant	3) s (B14)		Surface Drainag Dry-Sea	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1)		ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plants Hydrogen Sulfide C	3) s (B14) 9dor (C1)		Surface Drainag Dry-Sea Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)		ed; check all that apply) Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph	3) 5 (B14) 9dor (C1) eres on Livir	•	Surface Drainag Dry-Sea Crayfish (C3) Saturatio	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)		ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plants True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc	3) s (B14) odor (C1) eres on Livir ed Iron (C4)	)	(C3) Sturface Drainag Dry-Sea Crayfish Saturation	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1 True Aquatic Planta True Aquatic Planta Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc	3) s (B14) odor (C1) eres on Livir ed Iron (C4) tion in Tilled	)	(C3) Sturface Drainag Dry-Sea Crayfish Sturation Stunted S) Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	one is require	ed: check all that apply) — Water-Stained Lea — Aquatic Fauna (B1 — True Aquatic Plants — Hydrogen Sulfide C — Oxidized Rhizosph — Presence of Reduc — Recent Iron Reduc — Thin Muck Surface	3) s (B14) odor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7)	)	(C3) Sturface Drainag Dry-Sea Crayfish Sturation Stunted S) Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial	one is require	ed: check all that apply) — Water-Stained Lea — Aquatic Fauna (B1 — True Aquatic Plants — Hydrogen Sulfide C — Oxidized Rhizosph — Presence of Reduc — Recent Iron Reduc — Thin Muck Surface ) — Gauge or Well Data	B) (B14) odor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9)	)	(C3) Sturface Drainag Dry-Sea Crayfish Sturation Stunted S) Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely	Irology Indicators: ators (minimum of e Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav	one is require	ed: check all that apply) — Water-Stained Lea — Aquatic Fauna (B1 — True Aquatic Plants — Hydrogen Sulfide C — Oxidized Rhizosph — Presence of Reduc — Recent Iron Reduc — Thin Muck Surface ) — Gauge or Well Data	B) (B14) odor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9)	)	(C3) Sturface Drainag Dry-Sea Crayfish Sturation Stunted S) Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ	Irology Indicators: ators (minimum of e Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations:	one is require Imagery (B7 re Surface (B	ed: check all that apply) — Water-Stained Lea — Aquatic Fauna (B1 — True Aquatic Plants — Hydrogen Sulfide C — Oxidized Rhizosph — Presence of Reduc — Recent Iron Reduc — Thin Muck Surface ) — Gauge or Well Data 8) — Other (Explain in R	B) (B14) odor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6	(C3) Sturface Drainag Dry-Sea Crayfish Sturation Stunted S) Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Wate	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present?	one is require Imagery (B7 re Surface (B Yes N	ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1) True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Data 8) Other (Explain in R	B) (B14) odor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (Ce	(C3) Sturface Drainag Dry-Sea Crayfish Sturation Stunted S) Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Dep Inundatio Sparsely Field Observ Surface Wate Water Table F	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present?	Imagery (B7 re Surface (B Yes N Yes N	ed: check all that apply) — Water-Stained Lea — Aquatic Fauna (B1: — True Aquatic Plants — Hydrogen Sulfide C — Oxidized Rhizosph — Presence of Reduc — Recent Iron Reduc — Thin Muck Surface ) — Gauge or Well Data 8) — Other (Explain in R lo <u> </u> Depth (inches): _	B) (B14) (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)		(C3) Surface Drainag Dry-Sea Crayfish (C3) Saturatio Stunted S) Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) b Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Wate	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present?	Imagery (B7 re Surface (B Yes N Yes N	ed: check all that apply) Water-Stained Lea Aquatic Fauna (B1) True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Data 8) Other (Explain in R	B) (B14) odor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)		(C3) Surface Drainag Dry-Sea Crayfish (C3) Saturatio Stunted S) Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Prr (includes cap)	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Ser Present? Ser Present Pr	Imagery (B7 re Surface (B Yes N Yes N Yes N	ed: check all that apply) — Water-Stained Lea — Aquatic Fauna (B1: — True Aquatic Plants — Hydrogen Sulfide C — Oxidized Rhizosph — Presence of Reduc — Recent Iron Reduc — Thin Muck Surface ) — Gauge or Well Data 8) — Other (Explain in R lo <u> </u> Depth (inches): _	3) 5 (B14) 6 dor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)	Soils (Ce	Crayfish     Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) b Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Prr (includes cap)	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Ser Present? Ser Present Pr	Imagery (B7 re Surface (B Yes N Yes N Yes N	ed; check all that apply) Water-Stained Lea Aquatic Fauna (B1) True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dats B) Other (Explain in R Conter (Explain in R Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches):	3) 5 (B14) 6 dor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)	Soils (Ce	Crayfish     Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) b Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Prr (includes cap)	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Ser Present? Ser Present Pr	Imagery (B7 re Surface (B Yes N Yes N Yes N	ed; check all that apply) Water-Stained Lea Aquatic Fauna (B1) True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dats B) Other (Explain in R Conter (Explain in R Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches):	3) 5 (B14) 6 dor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)	Soils (Ce	Crayfish     Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) b Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depc Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Pro (includes cap) Describe Rec	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Ser Present? Ser Present Pr	Imagery (B7 re Surface (B Yes N Yes N Yes N	ed; check all that apply) Water-Stained Lea Aquatic Fauna (B1) True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dats B) Other (Explain in R Conter (Explain in R Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches):	3) 5 (B14) 6 dor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)	Soils (Ce	Crayfish     Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) b Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depc Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Pro (includes cap) Describe Rec	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Ser Present? Ser Present Pr	Imagery (B7 re Surface (B Yes N Yes N Yes N	ed; check all that apply) Water-Stained Lea Aquatic Fauna (B1) True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dats B) Other (Explain in R Conter (Explain in R Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches):	3) 5 (B14) 6 dor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7) a (D9) emarks)	Soils (Ce	Crayfish     Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) b Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Hatch Solar Farm	City/County: Maple Park /	Kane Sampling Date: 2	023-06-27			
Applicant/Owner: Horizon Solar Power		State: Illinois Sampling Point: D				
Investigator(s): Heather Bobich	Section, Township, Range: S					
Landform (hillslope, terrace, etc.): Depression		ve, convex, none): Concave				
Slope (%): 2 Lat: 41.8935671		Datum: WGS 84				
Soil Map Unit Name: 152A - Drummer silty clay I	oam, 0 to 2 percent slopes	NWI classification: PEM				
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes No	(If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norma	I Circumstances" present? Yes 🗹	No			
Are Vegetation, Soil, or Hydrology		explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes	No					
Hydric Soil Present? Yes _	No Is the Sampled Area	,				
Wetland Hydrology Present? Yes	No within a Wetland?	Yes No				

Yes 🖌 No 🔄

#### **VEGETATION** – Use scientific names of plants.

Wetland Hydrology Present?

Remarks:

Tree Stratum (Plot size:)       % Cover Species? Status       Number of Dominant Species         1.		Absolute		Indicator	Dominance Test worksheet:
2	Tree Stratum (Plot size:)				
3.	1				That Are OBL, FACW, or FAC: 1 (A)
3.	2				Total Number of Dominant
4.	3				
5.					
Sapling/Shrub Stratum (Plot size:)					
Sapling/Shrub Stratum (Plot size:)       Multiply tail         1.				ver	
2	Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
2.	1				Total % Cover of: Multiply by:
3.					OBL species <u>0</u> x 1 = <u>0</u>
4.					
5.					FAC species $0$ x 3 = $0$
Herb Stratum (Plot size:)Image: Constraint of the size string of the size s					
Herb Stratum (Plot size:)       10       ✓       FACW       Column Totals:       18       (A)       52       (B)         2. Amaranthus retroflexus       7       ✓       FACW       Prevalence Index = B/A = 2.89       (B)         3. Glycine max       5       ✓       Hydrophytic Vegetation Indicators:       1	···				
1. Cyperus strigosus       10       V       FACW         2. Amaranthus retroflexus       7       V       FACU         3. Glycine max       5       V       Hydrophytic Vegetation Indicators:         4. Digitaria sanguinalis       1       FACU       Hydrophytic Vegetation Indicators:         5.       V	Herb Stratum (Plot size:		- 10(a) 00	VEI	
3. Glycine max       5       ✓       Hydrophytic Vegetation Indicators:         4. Digitaria sanguinalis       1       FACU	1. Cyperus strigosus	10	~	FACW	
3. Orychie max       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0	2. Amaranthus retroflexus	7	~	FACU	Prevalence Index = $B/A = 2.89$
4	3. Glycine max	5	~		Hydrophytic Vegetation Indicators:
6.	4. Digitaria sanguinalis	1		FACU	1 - Rapid Test for Hydrophytic Vegetation
6.	5.				2 - Dominance Test is >50%
7.					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
8.					4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9.					data in Remarks or on a separate sheet)
10.					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)     23% = Total Cover     Indicators of hydric solit and wetland hydrology must be present, unless disturbed or problematic.       1					
Woody Vine Stratum (Plot size:)       be present, unless disturbed of problematic.       1          2	10.	23%	Tatal Oa		
1.	Woody Vine Stratum (Plot size: )	2370	= Total Co	ver	be present, unless disturbed or problematic.
2 = Total Cover Vegetation Present? Yes No					I hadron de stie
= Total Cover Present? Yes <u>Ves</u> No					
	2				Present? Yes No
Tremaines. (include photo numbers here of on a separate sheet.)	Remarks: (Include photo numbers here or on a senarate			vei	
	Temaria. (molude proto numbers here of off a separate	sneet.)			

#### SOIL

Profile Desc	ription: (Describe	e to the dep	oth needed to docur	nent the	indicator	or confirn	n the absence of inc	dicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 2/1	100					Silty Clay Loam	
<u>4 <sup>-</sup> 16</u>	10YR 2/1	93	10YR 3/6	7	<u> </u>	M	Clay Loam	
-								
-								
-								
		pletion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix.
Hydric Soil								Problematic Hydric Soils <sup>3</sup> :
Histosol	. ,							e Redox (A16)
· — ·	oipedon (A2) istic (A3)			Redox (St d Matrix (\$			Dark Surface	nese Masses (F12)
	en Sulfide (A4)				neral (F1)		_ •	w Dark Surface (TF12)
	d Layers (A5)				atrix (F2)			ain in Remarks)
2 cm Mu	uck (A10)			d Matrix (	,			
· — ·	d Below Dark Surfa	ce (A11)		Dark Surfa	• •		3	
	ark Surface (A12)				urface (F7)			/drophytic vegetation and rology must be present,
· ·	/lucky Mineral (S1) ucky Peat or Peat (S	33)		Depressio	ns (Fo)			rbed or problematic.
	Layer (if observed							
Type:		-						
Depth (in							Hydric Soil Pres	ent? Yes No
Remarks:	,							
Soil too	compact to	o dig de	eper than 16	6"				
HYDROLO	GY							
	drology Indicators	•						
-			ired; check all that ap	(vla			Secondary Inc	dicators (minimum of two required)
	Water (A1)		Water-Sta		(B9)		./	Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		, ,			Patterns (B10)
Saturatio	. ,		True Aqua	•	,			on Water Table (C2)
	larks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfish E	Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) Saturation	n Visible on Aerial Imagery (C9)
🖌 🖌 Drift Dej	posits (B3)		Presence	of Reduce	ed Iron (C4	4)	Stunted o	or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (Ce	6) 🖌 Geomorp	hic Position (D2)
I — ·	oosits (B5)		Thin Muck				FAC-Neu	tral Test (D5)
	on Visible on Aerial		· _ ·		. ,			
<u> </u>	y Vegetated Conca	/e Surface	(B8) Other (Exp	plain in Re	emarks)			
Field Obser								
Surface Wat			No Depth (in					
Water Table			No Depth (in					
Saturation P (includes ca	resent? pillary fringe)	Yes	No Depth (in	ches):		_   Wetl	and Hydrology Pres	sent? Yes No
Describe Re	corded Data (strear	n gauge, m	onitoring well, aerial	photos, p	revious ins	pections),	if available:	
Remarks:								

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Hatch Solar Farm	City/County: Maple Park	/ Kane	Sampling Date:	2023-06-27
Applicant/Owner: Horizon Solar Power		_ <sub>State:</sub> Illinois	Sampling Point:	DP4
Investigator(s): Heather Bobich	Section, Township, Range:	S9 T39N R6E		
Landform (hillslope, terrace, etc.): Flat	Local relief (cond	cave, convex, none):	None	
Slope (%): 0 Lat: 41.8935464	Long: -88.5529793		Datum: WGS 84	4
Soil Map Unit Name: 152A - Drummer silty clay loam, 0 to 2	percent slopes	NWI classific	ation: None	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🔽 No	_ (If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Norn	nal Circumstances" p	oresent? Yes 🗾	No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed	l, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locat	tions, transects	, important fe	atures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	ls the Sampled Area within a Wetland?	Yes	No
Remarks:					

#### **VEGETATION** – Use scientific names of plants.

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: 0 (A)
2			Total Number of Dominant
3			Species Across All Strata: 0 (B)
4.			
			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: <u>NaN</u> (A/B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Prevalence Index worksheet:
			Total % Cover of: Multiply by:
1			$\begin{array}{c c c c c c c c c c c c c c c c c c c $
2			
3		·	FACW species $0$ $x 2 = 0$
4		·	FAC species $0$ x 3 = $0$
5		·	FACU species 0 x 4 = 0
		= Total Cover	UPL species 0 x 5 = 0
Herb Stratum (Plot size:)			Column Totals: <u>0</u> (A) <u>0</u> (B)
1. Zea mays	100		
2			Prevalence Index = B/A = NaN
3.			Hydrophytic Vegetation Indicators:
4			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
5			$3$ - Prevalence Index is $\leq 3.0^{1}$
6			
7			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9		·	
10		·	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	100%	= Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			
1		·	Hydrophytic
2			Vegetation
		= Total Cover	Present? Yes No V
Remarks: (Include photo numbers here or on a separate	sheet.)		

#### SOIL

Profile Desc	ription: (Describe	to the dep	oth needed to docun	nent the	indicator	or confir	m the absence of indicators.)		
Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks		
0 - 12	10YR 2/1	100					Silty Clay Loam		
<u>12 <sup>-</sup> 16</u>	10YR 2/1	93	10YR 3/6	7	С	М	Clay Loam		
-									
-									
								—	
-									
Type: C=Co Hydric Soil		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :		
							•		
Histosol	( )				atrix (S4)		Coast Prairie Redox (A16)		
· — ·	pipedon (A2)			Redox (S			Dark Surface (S7)		
Black Hi	( )			l Matrix (	,		Iron-Manganese Masses (F12)		
	en Sulfide (A4)				ineral (F1)		Very Shallow Dark Surface (TF12)		
	d Layers (A5)				latrix (F2)		Other (Explain in Remarks)		
	ıck (A10)		'	d Matrix	` '				
· — ·	d Below Dark Surfac	e (A11)			ace (F6)		_		
	ark Surface (A12)				urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy M	lucky Mineral (S1)		Redox D	Depressio	ons (F8)		wetland hydrology must be present,		
5 cm Mu	icky Peat or Peat (S	3)					unless disturbed or problematic.		
Restrictive	Layer (if observed):								
Type:							Hydric Soil Present? Yes No		
Depth (in	ches):							—	
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators:								

Primary Indicators (minimum of one is required;	Primary Indicators (minimum of one is required; check all that apply)				
Surface Water (A1)		Surface Soil Cracks (B6)			
High Water Table (A2)	Aquatic Fauna (B13)		Drainage Patterns (B10)		
Saturation (A3)	True Aquatic Plants (B14)		Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	oils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)		FAC-Neutral Test (D5)		
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)				
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)				
Field Observations:					
Surface Water Present? Yes No _	Depth (inches):				
Water Table Present? Yes No _	✓ Depth (inches):				
Saturation Present? Yes No _	Depth (inches):	Wetland H	ydrology Present? Yes No		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	tions), if avai	llable:		
Remarks:					

## Appendix K References

- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. United States Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
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- U.S. Fish and Wildlife Service. 2011. *National Wetlands Inventory Map: Maple Park Quadrangle*. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.
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