Willowbrook Solar Project, Highland County Ohio Wetland and Waterbody Field Delineation Surveys Representative Photolog November 2017

Feature: WL-010

Date: 11/06/2017

Description: Photo of a typical, modified Category 2 wetland. This feature runs between two crop fields and connects directly to WB-010. The vegetation is dominated by cord grass and common rush, and appeared to have standing water throughout. Due to sufficient evidence of a connection to WOTUS, this feature is anticipated to be jurisdictional.

Feature: WL-012

Date: 11/06/2017

Description: Photo of a Category 1 wetland that appears to be a relic, impounded stream. This depressional feature had standing water of at least 6 inches throughout, and large mix of vegetation consisting of white heath aster, cord grass, and bullrush. There was a narrow fringe of trees surrounding the woodlot, mostly of oak and cedar species. This wetland appears to be secluded and removed from nearby NHD features and therefore isn't anticipated to be jurisdictional.

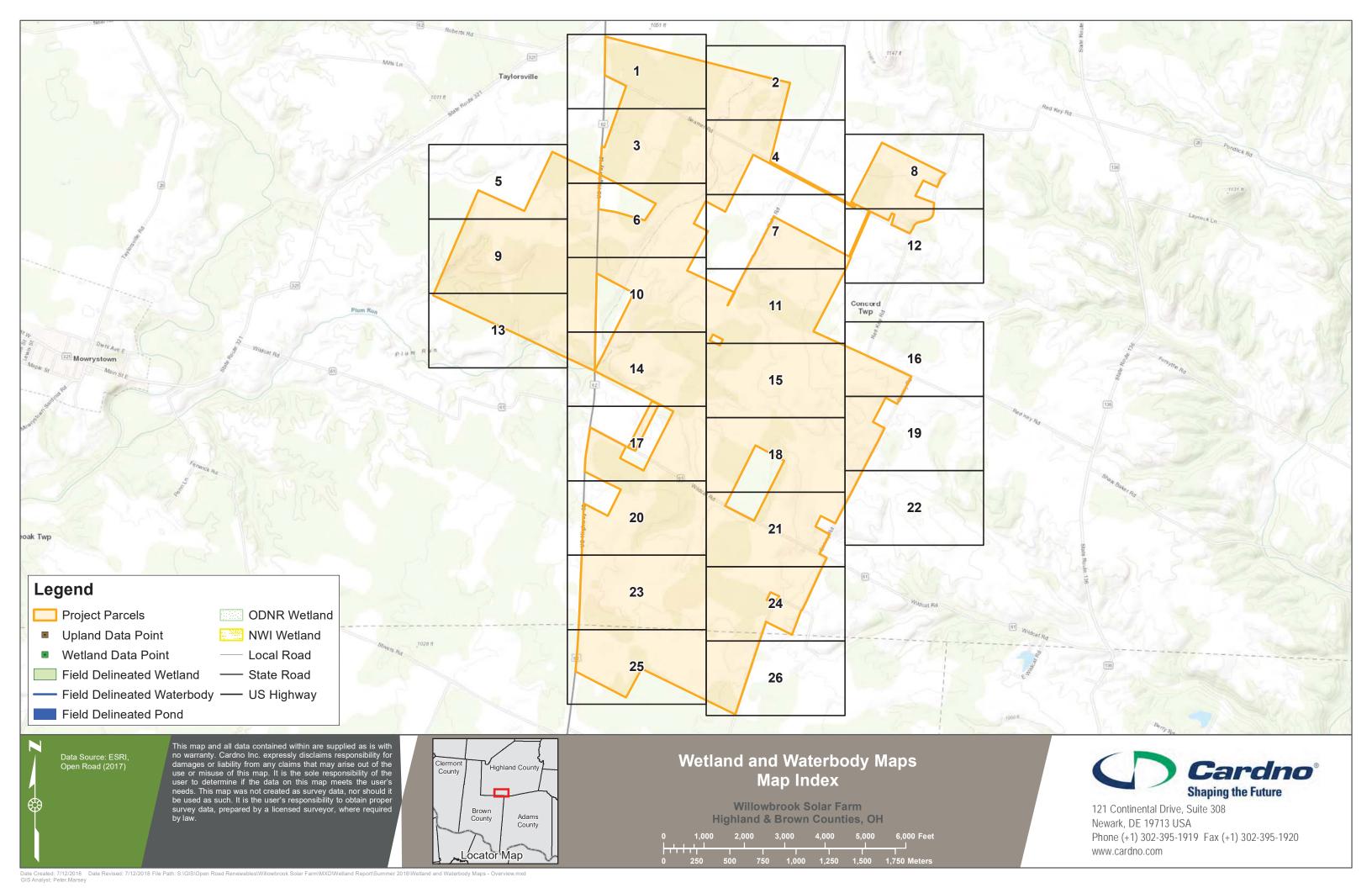


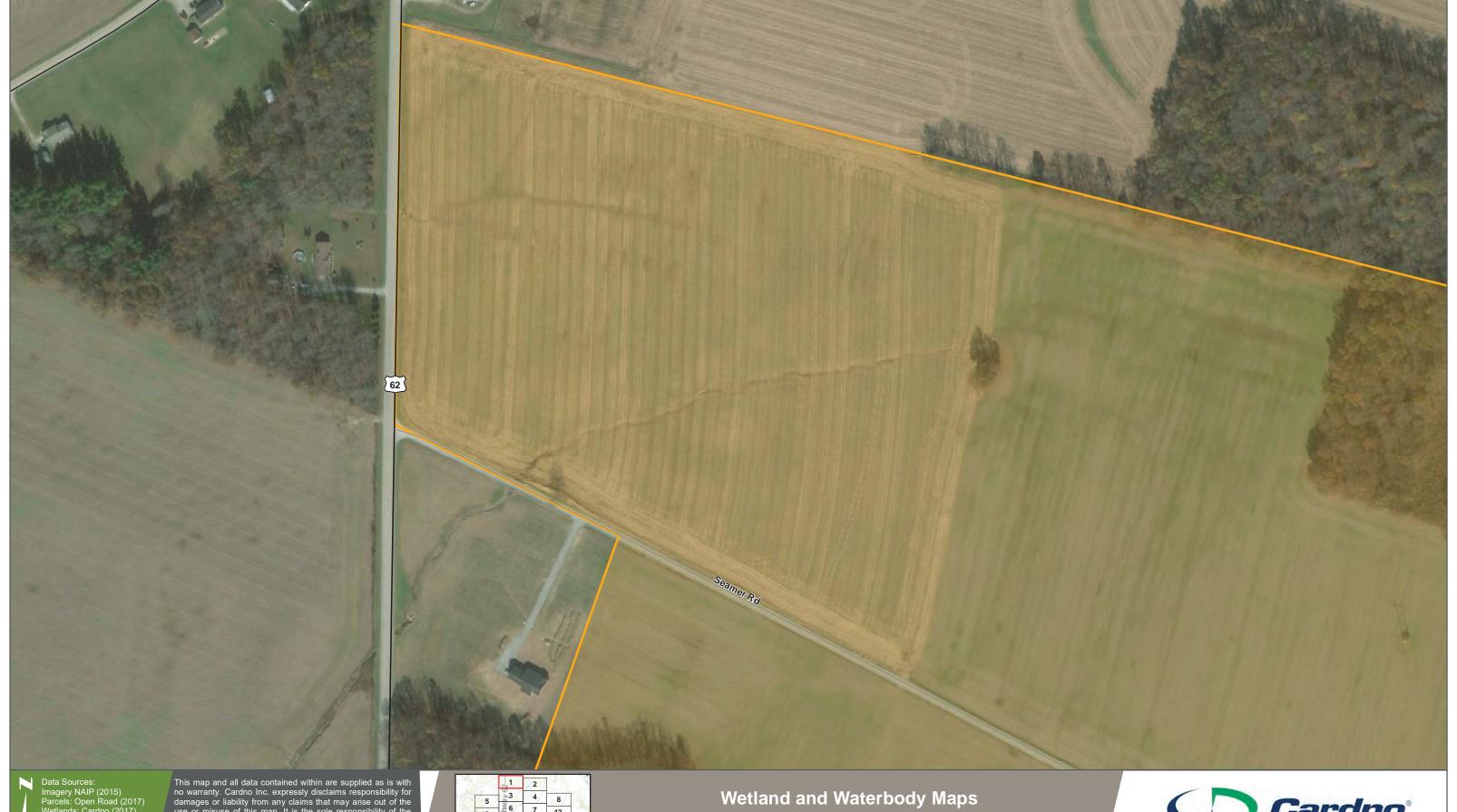
Willowbrook Solar Project

APPENDIX

B

WETLAND AND WATERBODY MAPS





Wetlands: Cardno (2017), Ohio DNR Wetlands Inventory (1991), USFWS (1979) County, City, Township Boundaries, Railroads: ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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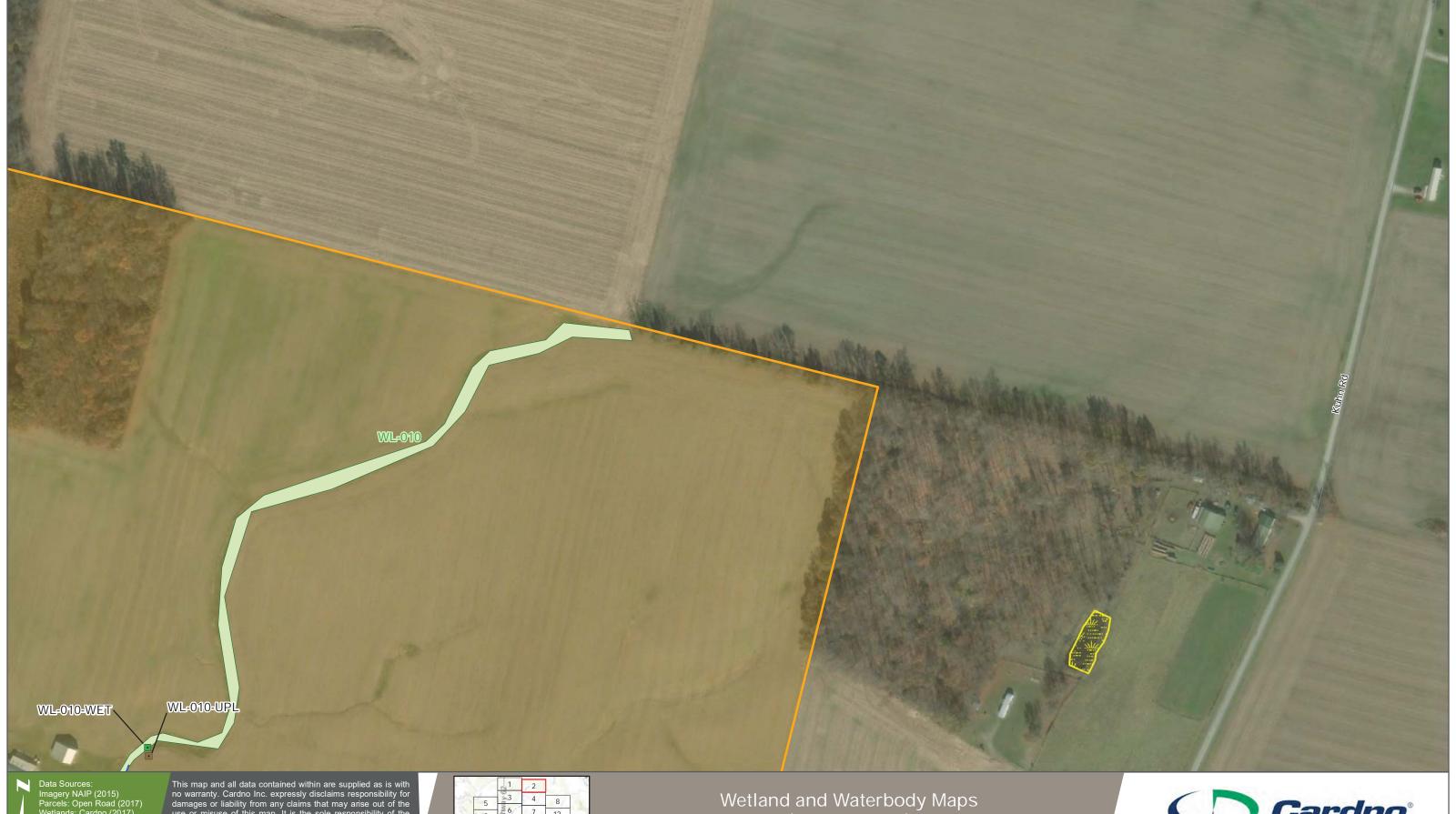


(Sheet 1 of 26)

Willowbrook Solar Farm **Highland & Brown Counties, OH**







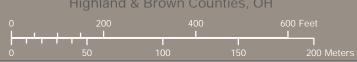
ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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(Sheet 2 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH







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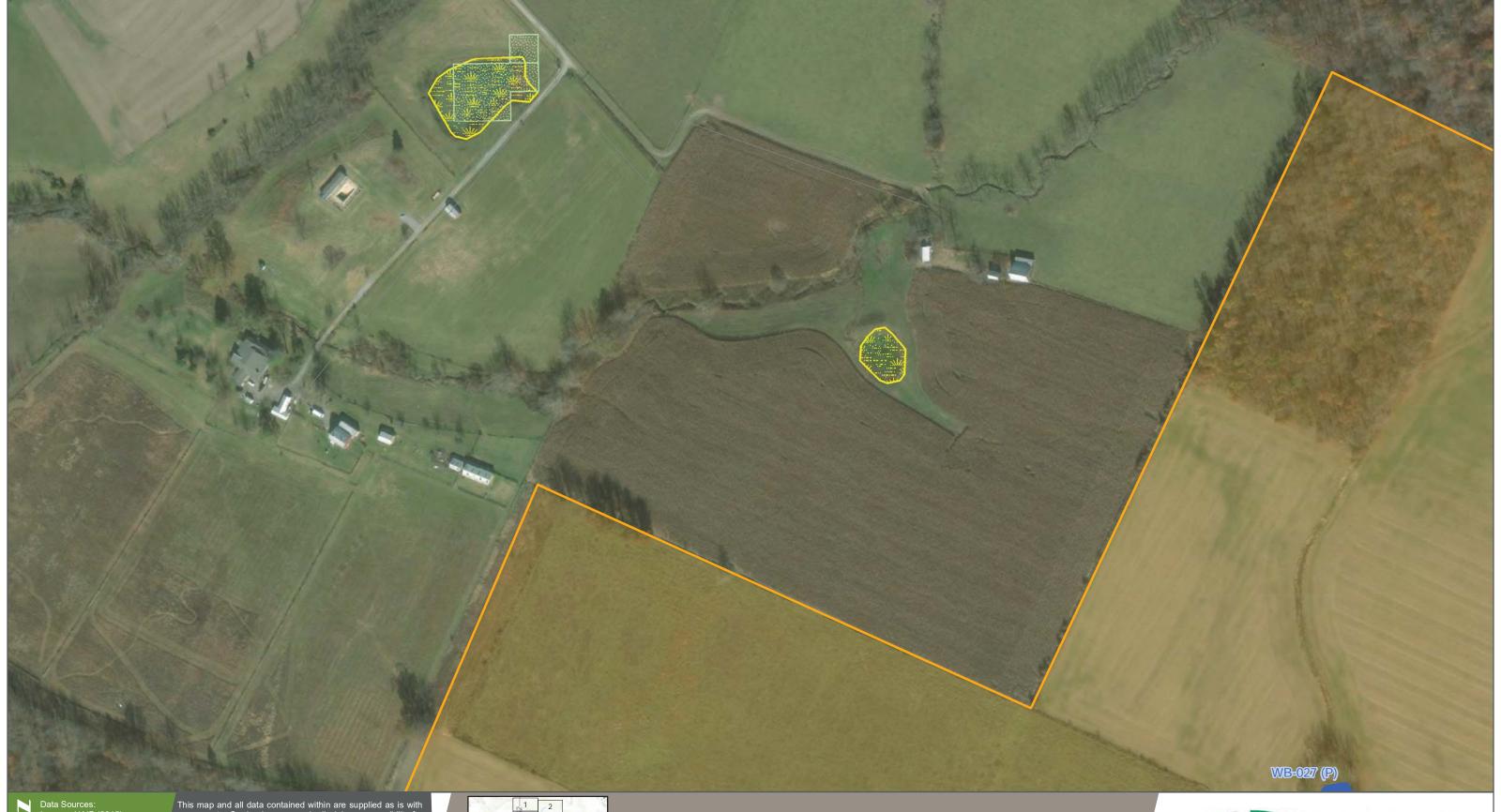
Locator Map



www.cardno.com

Date Created: 7/12/2018 Date Revised: 7/12/2018 File Path: S:\GIS\Open Road Renewables\Willowbrook Solar Farm\MXD\Wetland Report\Summer 2018\Wetland and Waterbody Maps. GIS Analyst: Peter.Marsey

Locator Map



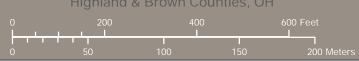
Imagery NAIP (2015)
Parcels: Open Road (2017)
Wetlands: Cardno (2017),
Ohio DNR Wetlands Inventor
(1991), USFWS (1979)
County, City, Township
Boundaries, Railroads:
ESRI Data and Maps (2014)
Roads: U.S. Census Bureau
Tiger Files (2016)

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Wetland and Waterbody Maps (Sheet 5 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH











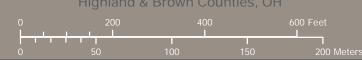
ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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Wetland and Waterbody Maps (Sheet 8 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH







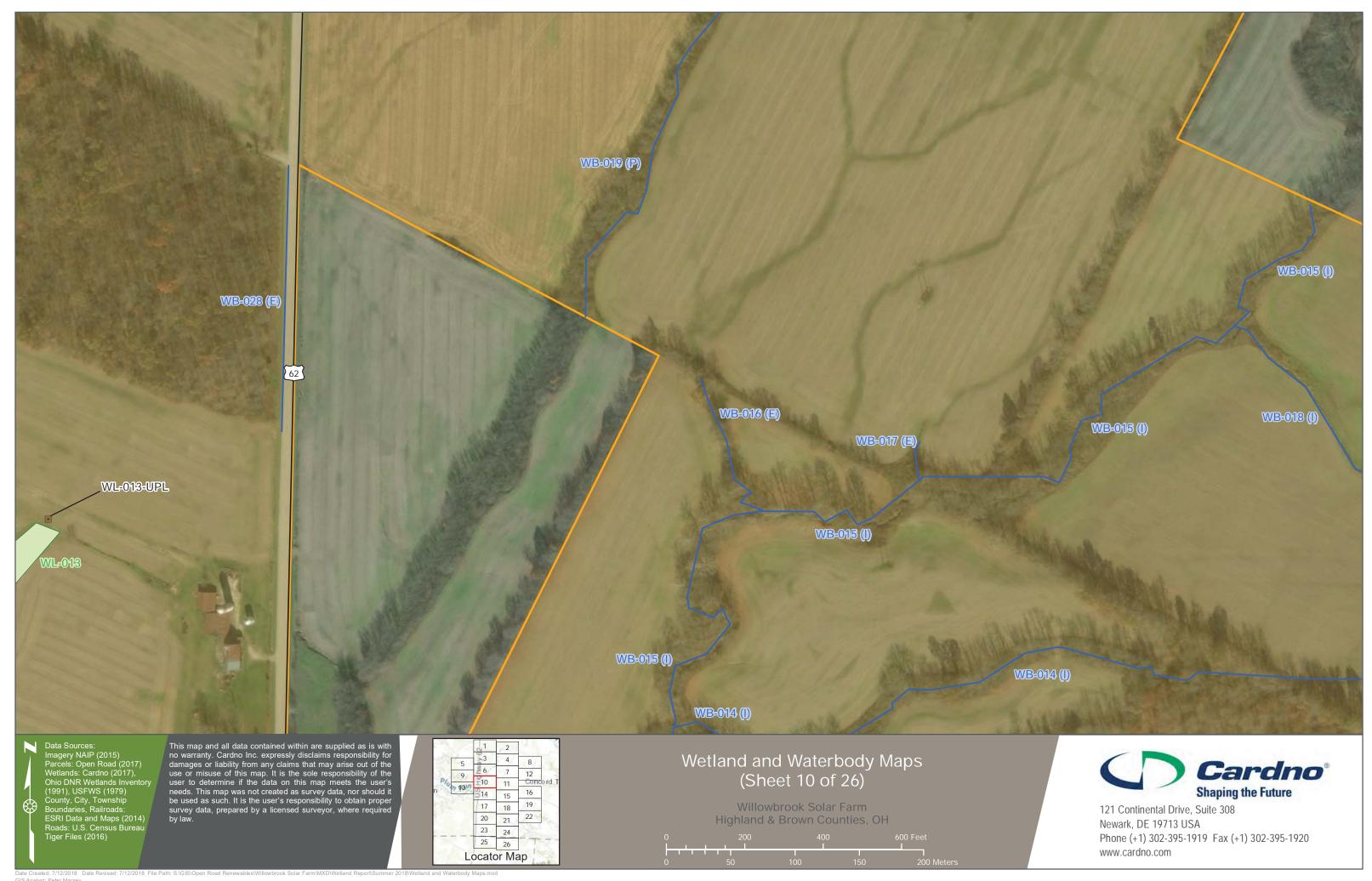
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7 12 11 Conco 15 16 18 19 21 22 20 21 23 24 25 26 Locator Map

Willowbrook Solar Farm Highland & Brown Counties, OH









Wetlands: Cardno (2017), Ohio DNR Wetlands Inventory (1991), USFWS (1979) County, City, Township Boundaries, Railroads: ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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Willowbrook Solar Farm Highland & Brown Counties, OH







ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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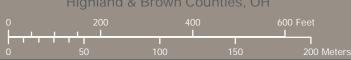
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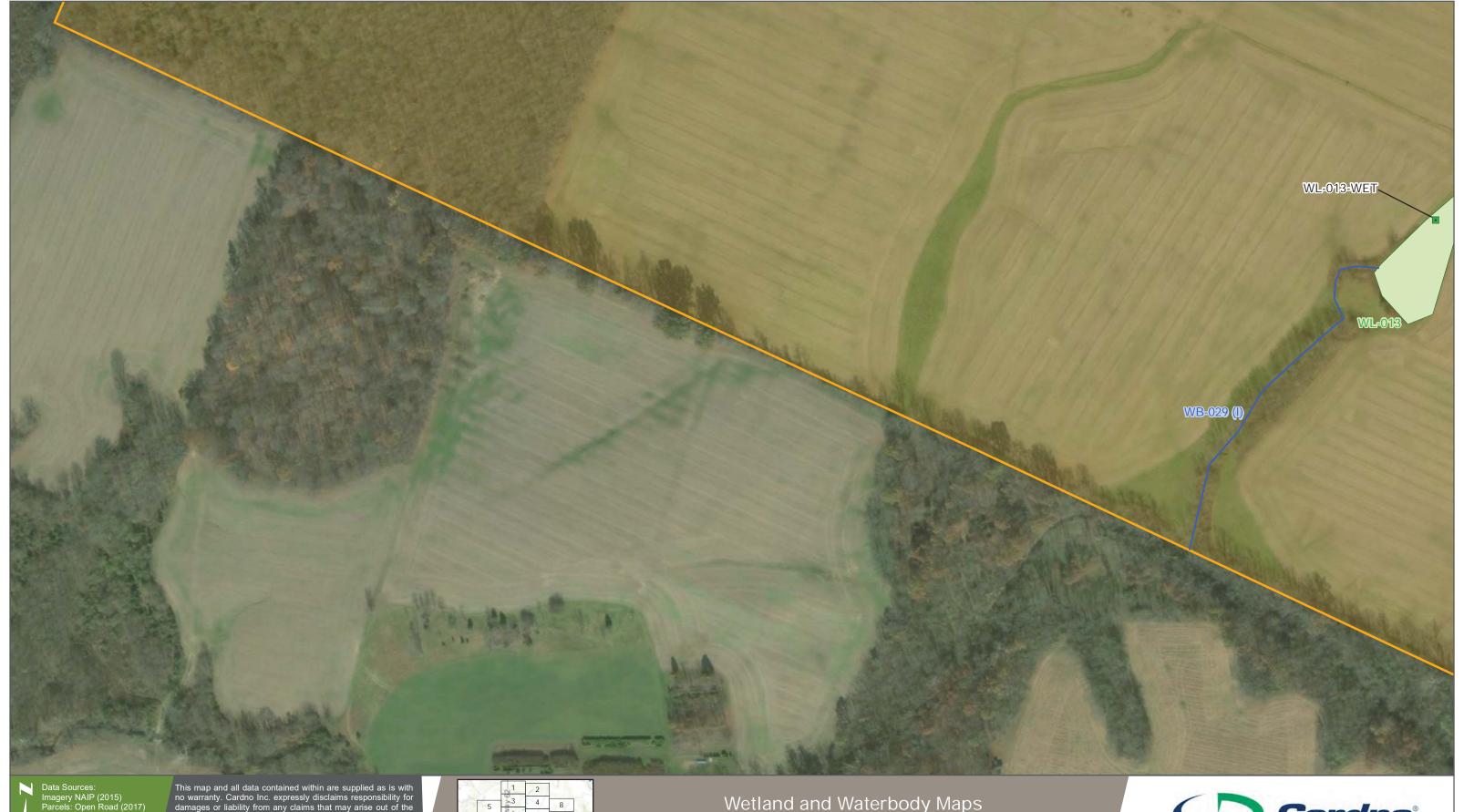
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Willowbrook Solar Farm Highland & Brown Counties, OH







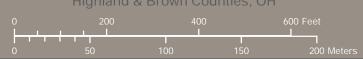
Wetlands: Cardno (2017), Ohio DNR Wetlands Inventory (1991), USFWS (1979) County, City, Township Boundaries, Railroads: ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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Wetland and Waterbody Maps (Sheet 13 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH









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Willowbrook Solar Farm Highland & Brown Counties, OH





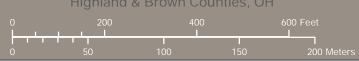


ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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Willowbrook Solar Farm Highland & Brown Counties, OH







ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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Willowbrook Solar Farm Highland & Brown Counties, OH





Imagery NAIP (2015)
Parcels: Open Road (2017)
Wetlands: Cardno (2017),
Ohio DNR Wetlands Inventory
(1991), USFWS (1979)
County, City, Township
Boundaries, Railroads:
ESRI Data and Maps (2014)
Roads: U.S. Census Bureau
Tiger Files (2016)

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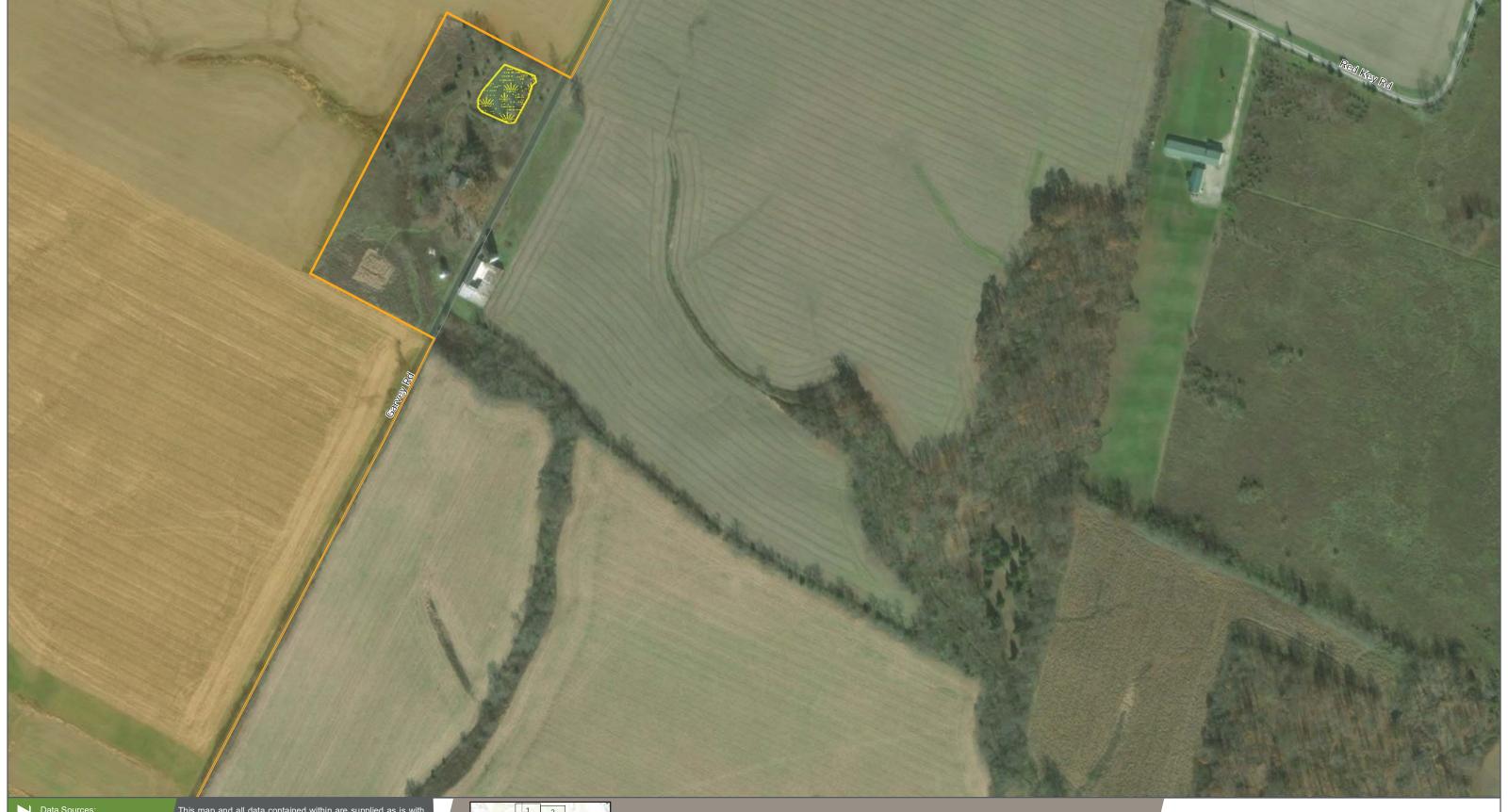
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Wetland and Waterbody Maps (Sheet 18 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH







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Parcels: Open Road (2017)
Wetlands: Cardno (2017),
Ohio DNR Wetlands Inventory
(1991), USFWS (1979)
County, City, Township
Boundaries, Railroads:
ESRI Data and Maps (2014)
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Wetland and Waterbody Maps (Sheet 19 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH





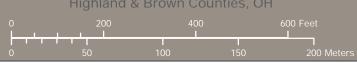


Wetlands: Cardno (2017), Ohio DNR Wetlands Inventory (1991), USFWS (1979) County, City, Township Boundaries, Railroads: ESRI Data and Maps (2014) Roads: U.S. Census Bureau Tiger Files (2016)

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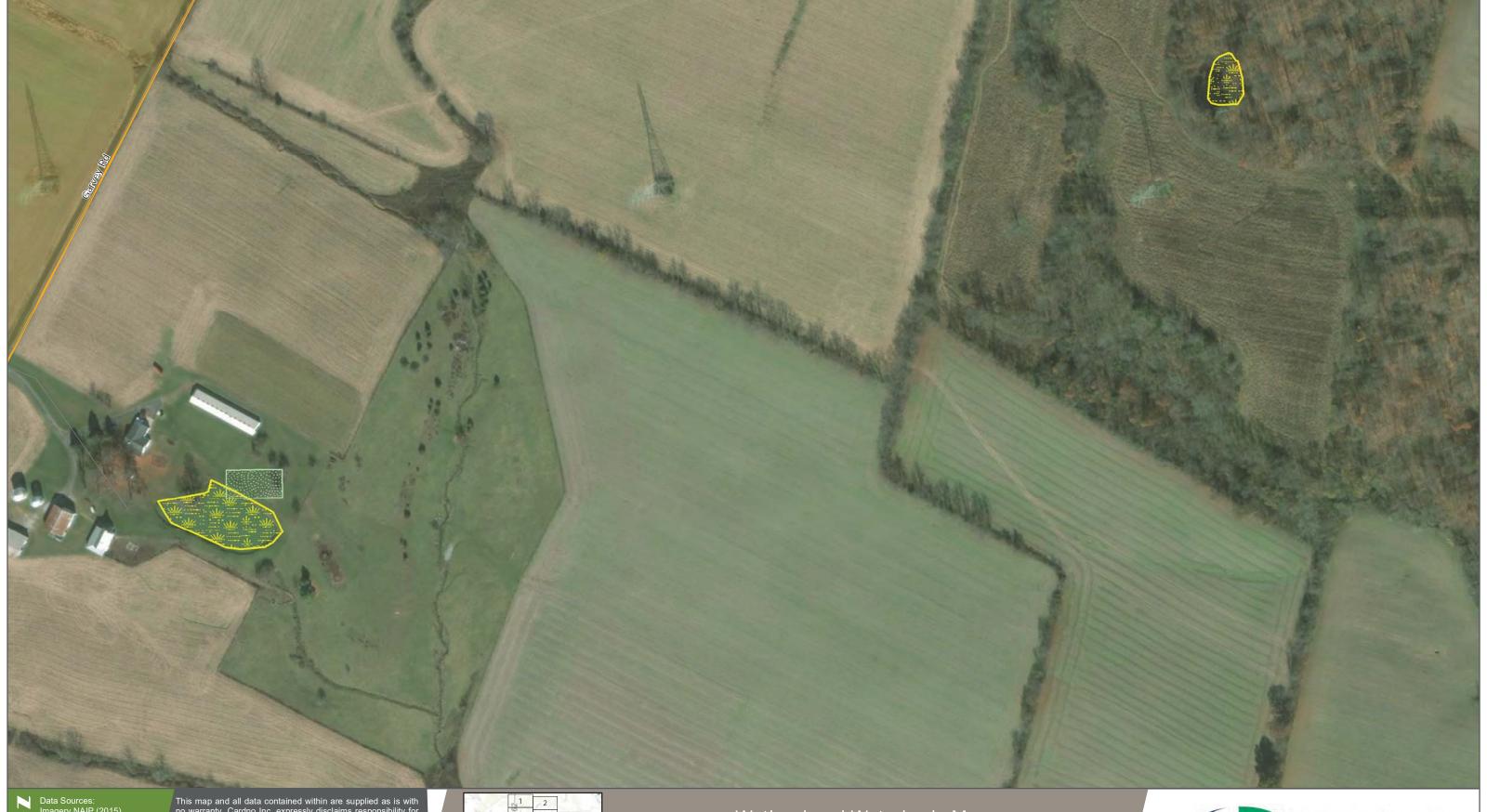
22 21 23 24 25 26 Locator Map

Willowbrook Solar Farm Highland & Brown Counties, OH









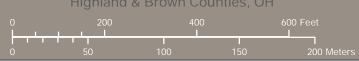
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Parcels: Open Road (2017)
Wetlands: Cardno (2017),
Ohio DNR Wetlands Inventor (1991), USFWS (1979)
County, City, Township
Boundaries, Railroads:
ESRI Data and Maps (2014)
Roads: U.S. Census Bureau
Tiger Files (2016)

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Wetland and Waterbody Maps (Sheet 22 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH

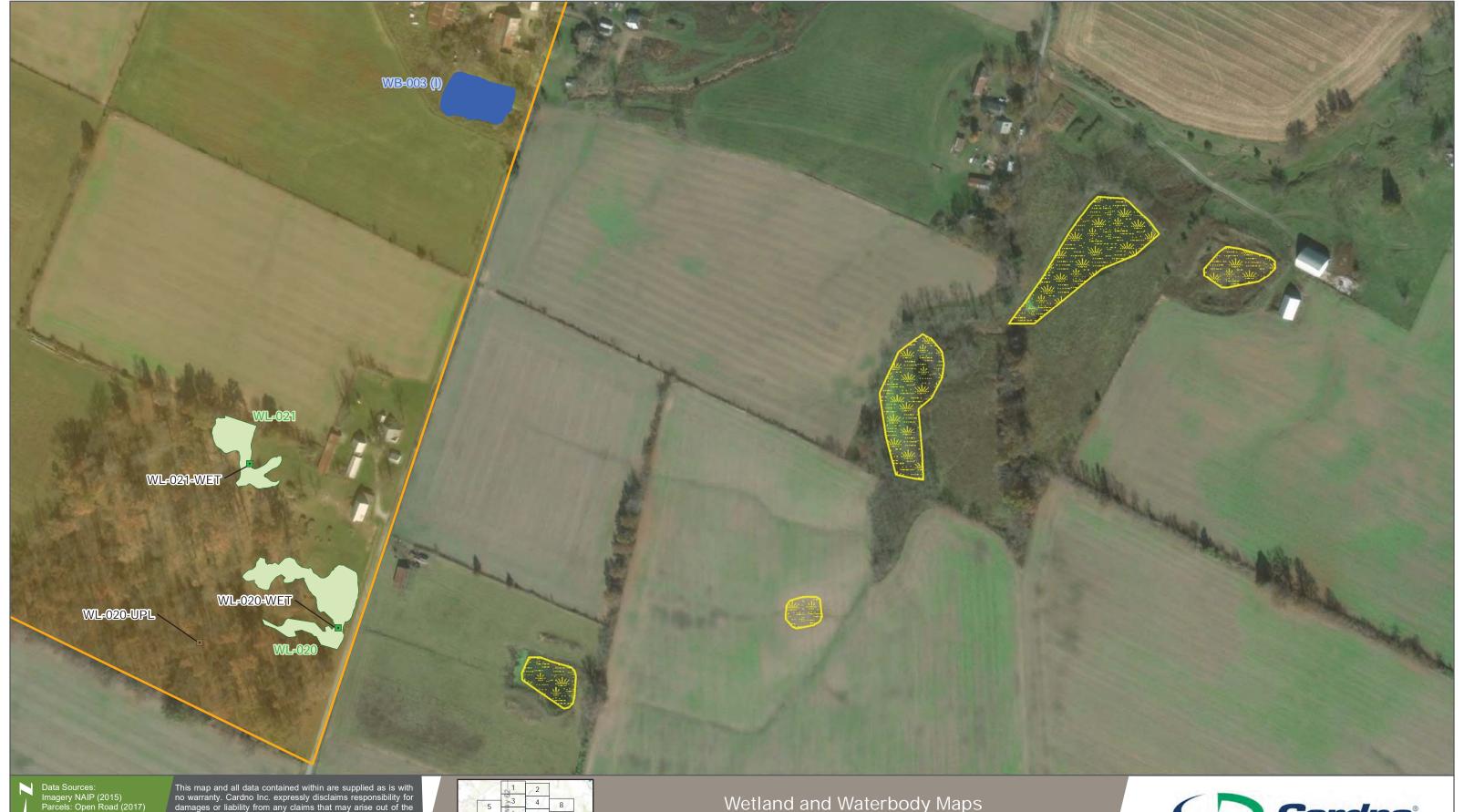












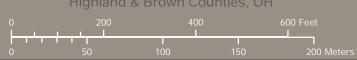
Data Sources:
Imagery NAIP (2015)
Parcels: Open Road (2017)
Wetlands: Cardno (2017),
Ohio DNR Wetlands Inventory
(1991), USFWS (1979)
County, City, Township
Boundaries, Railroads:
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Wetland and Waterbody Maps (Sheet 26 of 26)

Willowbrook Solar Farm Highland & Brown Counties, OH





Willowbrook Solar Project

APPENDIX

C

WETLAND DELINEATION AND ASSESSMENT FORMS

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Willowbrook Solar Fa	rm		City/County:	Highland		Sampling Date: <u>11/4/2017</u>
Applicant/Owner:	Open Road Renewal	iles				State: OH	Sampling Point: WL-001-UPL
Investigator(s):	BJS & MM			Sect	ion, Townshi	ip, Range:	
Landform (hillslope,	terrace, etc.): hillslo	ре			Local r	relief (concave, convex, none):	Convex
Slope (%):	1% Lat:	39.02376	66	Long:		-83.697038	Datum: WGS84
Soil Map Unit Name	e: AtC2					NWI class	ification: None
Are climatic / hydrol	logic conditions on the	site typical for this tin	ne of year?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No	, or Hydrology	No significantly di	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No	, or Hydrology	No naturally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Atta	ch site map sho	owing sampling	point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta	ition Present?	Yes	No X	Is the	Sampled Ar	ea	
Hydric Soil Present	?	Yes		within	a Wetland?	Yes	No X
Wetland Hydrology	Present?	Yes	No X				
Remarks:							
VEGETATION -	Use scientific na	ames of plants.				T	
Trop Stratum (Diet	01701 201 mg dive	`	Absolute	Dominant	Indicator	Daminanaa Taat wankabaa	4.
Tree Stratum (Plot 1. Acer saccharum		_'	% Cover 80%	Species? Yes	Status FACU	Dominance Test workshee	t:
2.	11		0070	163	1700	Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	
4.							<u></u>
5						Total Number of Dominant	
			80%	= Total Cover		Species Across All Strata:	(B)
Capling/Chruh Strat	tum (Plot size: 15' ra	dius)				Percent of Dominant Species	•
Rubus allegher		ulus)	15%	Yes	FACU	That Are OBL, FACW, or FA	
2.					.,,,,,,		(, 42)
3.							
4						Prevalence Index workshee	rt:
5			450/			T 1 10' 0 6	Address to the
Harb Stratum (Diat	oizo: El rodino	`	15%:	= Total Cover		Total % Cover of: OBL species	Multiply by:
Herb Stratum (Plot 1. Alliaria petiolata		_'	35%	Yes	FAC	FACW species	x1 = x2 =
	•				1710	FAC species 35%	x3 = 1.05
						FACU species 95%	x4 = 3.8
4						UPL species	x5 =
5						Column Totals: 1.30	(A) 4.85 (B)
6. 7.						Prevalence Index =	B/A = 3.73
8.						i revalence index =	B/A = 3.73
9.							
10.						Hydrophytic Vegetation Inc	dicators:
11							
12.						1-Rapid Test for Hy 2-Dominance Test i	drophytic Vegetation
13. 14.						3-Prevalence Index	
15.							aptations ¹ (Provide supporting
16.							on a separate sheet)
17.						Problematic Hydro	ohytic Vegetation ¹ (Explain)
18							
						¹ Indicators of hydric soil and	
20			25%	= Total Cover		be present, unless disturbed	or problematic.
			3370	- Total Cover			
Woody Vine Stratur	m (Plot size: 30' ra	dius)				Hydrophytic	
1	- · —	·				Vegetation	
2.						Present? Yes	No _X
				= Total Cover			
Remarks: (Include	photo numbers here or	on a congrete of	at)				
Tromains. (moidde	Prioto numbers nere of	on a soparate silee	···,				

US Army Corps of Engineers

Midwest Region version 2.0

SOIL Sampling Point: WL-001-UPL

roffie Desc Depth	cription: (Describe to t Matrix	-	Re	dox Features							
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Rem	arks	
0-1	2.5Y 5/3	100	()				organic				
1-7	5Y 6/3	100							resistan	oce at 7	
1-7	31 0/3	100					Sandy loam		resistar	ice at i	
				- ——							
	1			.							
Type: C=C	Concentration, D=Deplet	ion, RM=Red	uced Matrix, CS=Covere	ed or Coated	Sand Grains.		on: PL=Pore				
ydric Soil I	Indicators:					Indic	ators for Pro	blematic	Hydric Soils ³ :	:	
Histoso	ol (A1)			ed Matrix (S4))		Coas	st Prairie F	Redox (A16)		
	Epipedon (A2)		Sandy Redo					•	se Masses (F12	2)	
	Histic (A3)		Stripped Ma					Surface (
	gen Sulfide (A4)			ky Mineral (F			Very	Shallow D	ark Surface (T	F12)	
	ed Layers (A5)			ed Matrix (F2	2)		Othe	r (Explain	in Remarks)		
	fluck (A10)		Depleted Ma	` ,							
	ed Below Dark Surface	(A11)		Surface (F6)							
Thick D	Dark Surface (A12)		Depleted Da	ark Surface (F	7)				hytic vegetation		
Sandy	Mucky Mineral (S1)		Redox Depr	essions (F8)			wetland	hydrolog	y must be pres	ent,	
5 cm M	lucky Peat or Peat (S3)						unles	s disturbe	d or problemati	C.	
estrictive L	Layer (if observed):										
	Root/rock material										
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Depth (i		7	-			Hydric	Soil Present	?	Yes	No	X
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Depth (i marks: YDROL etland Hyc rimary India Surface	OGY drology Indicators: cators (minimum of one e Water (A1)		Water-Stain	ed Leaves (B	9)	Hydric		ndary Indi Surface S	cators (minimu Soil Cracks (B6	m of two req	
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PDROLO PORTOLO	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B14 ulfide Odor (C uizospheres o) C1) n Living Root			ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio	cators (minimu Soil Cracks (B6 Patterns (B10) on Water Table Burrows (C8) n Visible on Ae	m of two req)) e (C2)	uired)
PDEPTH (in print to be print t	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B14 ulfide Odor (C nizospheres o) C1) n Living Root n (C4)	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted o	cators (minimu Goil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla	m of two req	uired)
Print Verland Hydrox Surface High W Saturat Water I Sedime Drift De Algal M	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	na (B13) c Plants (B14 ulfide Odor (C izospheres o Reduced Iro Reduction in) C1) n Living Root n (C4)	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
Primary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5)	is required: c	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (B14 ulfide Odor (C izospheres o Reduced Iro Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Goil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla	m of two req	uired)
POPPOLO POPPOL	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14 ulfide Odor (C aizospheres of Reduced Iron Reduction in Gurface (C7) fell Data (D9)) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
POPPOLO POPPOL	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5)	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14 ulfide Odor (C izospheres o Reduced Iro Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
POROLO Pertand Hydrimary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundae Sparse	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave S	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14 ulfide Odor (C aizospheres of Reduced Iron Reduction in Gurface (C7) fell Data (D9)) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
Property (in property in the p	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave S	is required: c agery (B7) Surface (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14 ulfide Odor (C iizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
Print De Depth (in Print De Dept	drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5) tion Visible on Aerial Imely Vegetated Concave stations: ter Present?	is required: c agery (B7) Surface (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B14 ulfide Odor (C nizospheres o F Reduced Iro Reduction in Surface (C7) 'ell Data (D9) ain in Remark s): N/A) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
Primary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Surface Wat Vater Table	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave s vations: ter Present?	is required: of agery (B7) Surface (B8) Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B14 ulfide Odor (C aizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla whic Position (D	m of two req	uired)
Depth (i emarks: YDROL Vetland Hyd Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse ield Observ Surface Water Table Saturation P	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave s vations: ter Present?	is required: of agery (B7) Surface (B8) Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inches	na (B13) c Plants (B14 ulfide Odor (C aizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A) C1) n Living Root n (C4) Tilled Soils (G	s (C3)	Seco	ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla shic Position (D stral Test (D5)	m of two req	uired)
Depth (i emarks: PYDROL Vetland Hyd Primary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse ield Observ Surface Water Table Saturation P includes cal	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave solutions: ter Present? e Present? Present? pillary fringe)	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inches	na (B13) c Plants (B14 ulfide Odor (C izospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A N/A) C1) n Living Root n (C4) Tilled Soils (G	s (C3) C6)	Seco	ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla shic Position (D stral Test (D5)	m of two req	uired)
Primary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse Surface Water Table Saturation P includes cal	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave solutions: ter Present? e Present? Present? pillary fringe)	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inches	na (B13) c Plants (B14 ulfide Odor (C izospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A N/A	(C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Seco	ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla shic Position (D stral Test (D5)	m of two req	uired)
Primary India Surface High W Saturat Water I Sedime Drift De Inundar Sparse Gurface Wat Vater Table Saturation P Includes cal Describe Re	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave solutions: ter Present? e Present? Present? pillary fringe)	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inches	na (B13) c Plants (B14 ulfide Odor (C izospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A N/A	(C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Seco	ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla shic Position (D stral Test (D5)	m of two req	uired)
Primary India Surface High W Saturat Water I Sedime Drift De Inundar Sparse Gurface Wat Vater Table Saturation P Includes cal Describe Re	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave solutions: ter Present? e Present? Present? pillary fringe)	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inches	na (B13) c Plants (B14 ulfide Odor (C izospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A N/A	(C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Seco	ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla shic Position (D stral Test (D5)	m of two req	uired)
Primary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse Surface Water Table Saturation P includes cal	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Im ely Vegetated Concave solutions: ter Present? e Present? Present? pillary fringe)	is required: o	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inches	na (B13) c Plants (B14 ulfide Odor (C izospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A N/A N/A	(C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Seco	ndary Indi Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp	cators (minimu Soil Cracks (B6 Patterns (B10) son Water Table Burrows (C8) n Visible on Ae or Stressed Pla shic Position (D stral Test (D5)	m of two req	uired)

US Army Corps of Engineers Midwest Region version 2.0

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Willowbrook So	olar Farm				City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Re	enewables						State: OH S	Sampling Point: WL-001-WET
Investigator(s):	BJS & MM					Sect	on, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.):	hillslope					Local	relief (concave, convex, none): <u>C</u>	oncave
Slope (%):2	2% Lat:		39.0237	28		Long:		83.697215	Datum: WGS84
Soil Map Unit Name	e: JoR1B	1						NWI classific	cation: None
Are climatic / hydrol	logic conditions of	on the site ty	pical for this tir	ne of yea	r?	Yes	X No	(If no, explain in Remarks.)
Are Vegetation	No , Soil	<u>No</u> , o	r Hydrology	No sig	nificantly d	listurbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil	<u>No</u> , o	r Hydrology	No na	turally prob	lematic?	(If need	ded, explain any answers in Rem	arks.)
SUMMARY OF	FINDINGS	Attach s	ite map sh	owing s	sampling	g point loca	tions, tra	nsects, important feature	s, etc.
Hydrophytic Vegeta Hydric Soil Present' Wetland Hydrology Remarks:	?		Yes X Yes X Yes X	No_ No_ No_			Sampled Ar a Wetland?		No
VEGETATION -	Use scient	ific name	s of plants						
Tree Stratum (Plot	size: 30' rad	lius)			Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Quercus bicolor		ilus)		_	30%	Yes	FACW	Dominance rest worksneet.	
2. 3. 4.					0070	103	TAOW	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
5					30%	= Total Cover		Total Number of Dominant Species Across All Strata:	3 (B)
2	tum (Plot size:							Percent of Dominant Species That Are OBL, FACW, or FAC	(A/B)
4.								Prevalence Index worksheet:	
5						= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radiu	ıs)		_				OBL species	x1 =
1. Carex blanda					35%	Yes	FAC	FACW species 60%	x2 = 1.2
2. Persicaria macu	ulosa				30%	Yes	FACW	FAC species 35%	x3 =1.05
3								FACU species UPL species	x4 =
4. 5.								Column Totals: 0.95	x5 = (A) 2.25 (B)
6.									(//)(D)
7. 8.								Prevalence Index = B	/A =
9.									
10.								Hydrophytic Vegetation India	cators:
11.								45 117 16 11 1	
12. 13.								1-Rapid Test for Hydro X 2-Dominance Test is	
14.								X 3-Prevalence Index is	
15.								4-Morphological Adap	tations ¹ (Provide supporting
16								data in Remarks or o	
17								Problematic Hydroph	ytic Vegetation¹ (Explain)
18.								¹ Indicators of hydric soil and we	atland hydrology must
19. 20.								be present, unless disturbed of	
					65%	= Total Cover		be present, unless disturbed of	problematic.
Woody Vine Stratur	_ `	30' radius)					Hydrophytic Vegetation	Y No.
2						= Total Cover		Present? Yes_	<u>XNo</u>
Remarks: (Include	photo numbers	here or on a	separate shee	et.)				1	

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SOIL Sampling Point: WL-001-WE

Profile Desc	ription: (Describe to th	e depth need	ed to document the in	ndicator or c	onfirm the a	bsence o	f indicators.)	
Depth	Matrix		Re	dox Features			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 4/2	100					Clay loam	
6-12	10YR 7/1	90	10YR 5/8	10	С	M	Clay loam	
- 0-12	1011(1/1		10111 0/0			101	Olay loani	
		· —— —					. ———	
¹ Type: C=C	concentration, D=Depletion	on, RM=Reduc	ed Matrix, CS=Covere	ed or Coated S	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.
Hydric Soil I	ndicators:					Indic	ators for Prol	olematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy Gleye	ed Matrix (S4))		Coast	Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Redo	x (S5)			Iron-N	Manganese Masses (F12)
Black H	listic (A3)		Stripped Ma	trix (S6)			Dark S	Surface (S7)
Hydrog	en Sulfide (A4)		Loamy Muck	ky Mineral (F1)		Very S	Shallow Dark Surface (TF12)
Stratifie	ed Layers (A5)			ed Matrix (F2)				(Explain in Remarks)
2 cm M	luck (A10)		X Depleted Ma					,
	ed Below Dark Surface (/	A11)		Surface (F6)				
	Park Surface (A12)	,		ark Surface (F	7)		³ Indicators of	of hydrophytic vegetation and
	Mucky Mineral (S1)			essions (F8)	.,			hydrology must be present,
	lucky Peat or Peat (S3)			000.01.0 (. 0)				disturbed or problematic.
	ayer (if observed):							
Type:	nahaa);					Lludvia	Cail Brasant	. Voc V No
Depth (i	nches).					пуапс	Soil Present?	? Yes X No
HYDROL	OGY							
Wetland Hyd	Irology Indicators:							
Primary India	cators (minimum of one i	s required: che	eck all that apply)				Secon	dary Indicators (minimum of two required)
X Surface	e Water (A1)		Water-Stain	ed Leaves (B	9)		;	Surface Soil Cracks (B6)
High W	ater Table (A2)		Aquatic Fau	na (B13)			X	Drainage Patterns (B10)
Saturat	ion (A3)		True Aquation	c Plants (B14))			Dry-Season Water Table (C2)
Water	Marks (B1)		Hydrogen S	ulfide Odor (C	(1)			Crayfish Burrows (C8)
Sedime	ent Deposits (B2)		X Oxidized Rh	izospheres or	n Living Root	s (C3)	 ;	Saturation Visible on Aerial Imagery (C9)
Drift De	eposits (B3)		Presence of	Reduced Iron	n (C4)		 ;	Stunted or Stressed Plants (D1)
Algal M	lat or Crust (B4)		Recent Iron	Reduction in	Tilled Soils (C6)	—	Geomorphic Position (D2)
Iron De	posits (B5)		Thin Muck S	Surface (C7)				FAC-Neutral Test (D5)
Inundat	tion Visible on Aerial Ima	gery (B7)	Gauge or W	ell Data (D9)				
X Sparse	ly Vegetated Concave S	urface (B8)	Other (Expla	ain in Remark	s)			
Field Observ	rational		<u> </u>		.			
		/ V N-	Danth /inches	.\. 0				
Surface Wat		/es <u>X</u> No_	Depth (inches	· ——				
Water Table		/es No _		· ——				v v u
Saturation P		/es No	X Depth (inches	s): <u>N/A</u>	Wetland	Hydrolog	gy Present?	Yes X No
(includes cap					4: > :5	11 - 1- 1		
Describe Re	corded Data (stream gai	uge, monitorino	y well, aerial photos, pi	revious insped	ctions), if ava	ıllable:		
Remarks:								

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WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Willowbrook Sol	ar Farm			City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Ren	iewables					State: OH	Sampling Point: WL-002-UPL
Investigator(s):	BJS & MM				Sect	ion, Townshi	ip, Range:	
Landform (hillslope,	, terrace, etc.): <u>f</u>	field				Local r	relief (concave, convex, none):	none
Slope (%):	0% Lat:_	39.024	433	Lo	ong:		-83.697513	Datum: WGS84
Soil Map Unit Name	e: WsS1A1	1					NWI classi	fication: None
Are climatic / hydrol	logic conditions on	the site typical for this t	ime of year?		Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil	No , or Hydrology	No signific	antly distu	rbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil	No , or Hydrology	No natural	lly problem	natic?	(If need	ded, explain any answers in Rei	marks.)
SUMMARY OF	FINDINGS /	—— Attach site map sh	owing sam	pling p	oint loca	tions, tra	nsects, important featui	es, etc.
Hydrophytic Vegeta		Yes		x		Sampled Ar	-	
Hydric Soil Present		Yes		X		a Wetland?		No X
Wetland Hydrology	Present?	Yes		X				<u> </u>
Remarks:								
VEGETATION -	Use scientif	ic names of plants	S					
					Dominant	Indicator		
Tree Stratum (Plot	size: 30' radiu	<u>is</u>)	_ % C	over S	Species?	Status	Dominance Test workshee	t:
1							North and Demain and On a sign	
2. 3.							Number of Dominant Species That Are OBL, FACW, or FA	
4.							That Ale Obe, I ACW, Of I A	J(A)
_							Total Number of Dominant	
				= To	otal Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	tum (Plot size:	15' radius)					Percent of Dominant Species	
0							That Are OBL, FACW, or FA	C: 50% (A/B)
0								
							Prevalence Index workshee	t:
5.								-
				= To	otal Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)					OBL species	x1 =
1. Trifolium prater)%	Yes	FACU	FACW species 30%	x2 =0.6
2. Spartina pectina)%	Yes	FACW	FAC species	x3 =
Solidago canad Taraxacum office)%)%	No No	FACU FACU	FACU species 70% UPL species	x4 = 2.8 x5 =
5.	ciriale			J70	INO	FACU	Column Totals: 1.00	(A) 3.4 (B)
6.								(; i)(2)
7.							Prevalence Index =	B/A =3.40
8								
9								
10.							Hydrophytic Vegetation Inc	licators:
11. 12.							1-Rapid Test for Hyd	drophytic Vegetation
13.							2-Dominance Test is	, , ,
14.							3-Prevalence Index	
15.					,		4-Morphological Ada	aptations ¹ (Provide supporting
16								on a separate sheet)
17							Problematic Hydrop	ohytic Vegetation¹ (Explain)
18.							¹ Indicators of hydric soil and	continued by objects and provide
19. 20.							be present, unless disturbed	
20				0% = To	otal Cover		be present, unless disturbed	or problematic.
				070 1	otal oovel			
Woody Vine Stratur	m (Plot size:	30' radius)					Hydrophytic	
1	_ · _	·					Vegetation	
2.							Present? Yes	No X
				= To	otal Cover			
Describe (1)	white we have		-4.					
Remarks: (Include	prioto numbers he	ere or on a separate she	æ)					

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SOIL Sampling Point: WL-002-UPL

epth iches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-12	2.5Y 6/6	85	7.5YR 6/8	5	C	M	loam clay		Remarks	
)-12			7.511(0/0			IVI	loani ciay			
	2.5Y 5/1	10								
				-						
		ion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.			Lining, M=Matrix		
ic Soii ii Histoso	ndicators:		Sandy Clay	od Matrix (C1	`	inaic		blematic Hydric		
	pipedon (A2)		Sandy Red	ed Matrix (S4)			st Prairie Redox (<i>l</i> Manganese Mass	•	
	istic (A3)		Stripped Ma					Surface (S7)	ses (F12)	
	en Sulfide (A4)			ky Mineral (F	1)			Shallow Dark Surl	face (TF12)	
	d Layers (A5)			red Matrix (F2	•			r (Explain in Rem		
	uck (A10)		Depleted M	•	-/			· (=/.p.a		
	d Below Dark Surface ((A11)		Surface (F6))					
•	ark Surface (A12)	,		ark Surface (F			³ Indicators	of hydrophytic ve	getation and	
-	Mucky Mineral (S1)			essions (F8)				hydrology must b		
5 cm M	ucky Peat or Peat (S3)		<u> </u>				unles	s disturbed or prol	blematic.	
trictive L	ayer (if observed):									
Type:										
Depth (ii			-			Hydric	Soil Present	? Yes	s No	·
Depth (in	DGY		-			Hydric	Soil Present	? Yes	s No	
Depth (in arks:	DGY rology Indicators:	is required; o	hock all that apply)			Hydric				
Depth (in arks: DROL(land Hydenary Indice	DGY rology Indicators: ators (minimum of one	is required: c		R) saves I ba	R Q)	Hydric		ndary Indicators (i	minimum of two	
DROLC and Hyd nary Indic	OGY rology Indicators: ators (minimum of one Water (A1)	is required: c	Water-Stair	ed Leaves (B	39)	Hydric		ndary Indicators (i Surface Soil Crac	minimum of two ocks (B6)	
DROLC and Hyd nary Indic Surface High W	rology Indicators: ators (minimum of one Water (A1) ater Table (A2)	is required: c	Water-Stair Aquatic Fau	ina (B13)	,	Hydric		ndary Indicators (i Surface Soil Crad Drainage Pattern	minimum of two cks (B6)	
DROLO and Hyd nary Indic Surface High W Saturati	POGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)	is required: c	Water-Stair Aquatic Fau True Aquati	ina (B13) c Plants (B14	· -})	Hydric		ndary Indicators (I Surface Soil Crad Drainage Pattern Dry-Season Wate	minimum of two cks (B6) as (B10) er Table (C2)	
DROLO and Hyd ary Indic Surface High W Saturati Water M	POGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1)	is required: c	Water-Stair Aquatic Fau True Aquati Hydrogen S	ina (B13) c Plants (B14 ulfide Odor (0	P) C1)			ndary Indicators (i Surface Soil Crad Drainage Pattern	minimum of two cks (B6) as (B10) er Table (C2) s (C8)	require
DROLO land Hyd nary Indic Surface High W Saturati Water N Sedime	POGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)	is required: c	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ina (B13) c Plants (B14	() C1) on Living Roof			ndary Indicators (I Surface Soil Crad Drainage Pattern Dry-Season Wate Crayfish Burrows	minimum of two cks (B6) us (B10) er Table (C2) s (C8) e on Aerial Image	require
DROLO land Hyd mary Indic Surface High Water N Sedime Drift De	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)	is required: c	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ina (B13) c Plants (B14 ulfide Odor (C nizospheres o	(2) C1) on Living Root on (C4)	es (C3)		ndary Indicators (i Surface Soil Crad Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible	minimum of two cks (B6) us (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1)	require
DROLO Brolo Iand Hyd mary Indic Surface High W: Saturati Water M Sedime Drift De Algal M	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)	is required: c	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron	ina (B13) c Plants (B14 ulfide Odor (C nizospheres o f Reduced Iro	(2) C1) on Living Root on (C4)	es (C3)		ndary Indicators (i Surface Soil Crad Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress	minimum of two cks (B6) as (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLO Jarks: DROLO Jand Hyd Jary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron	na (B13) c Plants (B14 ulfide Odor (C nizospheres o f Reduced Iro Reduction in	i) C1) on Living Roof in (C4) Tilled Soils (es (C3)		ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos	minimum of two cks (B6) as (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLC land Hyd nary Indic Surface High W. Saturati Water M. Sedime Drift De Algal M. Iron De Inundati	POGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	agery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14 ulfide Odor (C nizospheres of Reduced Iro Reduction in Gurface (C7)	E) C1) on Living Roof on (C4) Tilled Soils (es (C3)		ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos	minimum of two cks (B6) as (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLO Brolo Indicate the property of the pro	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im-	agery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14 ulfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9)	E) C1) on Living Roof on (C4) Tilled Soils (es (C3)		ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos	minimum of two cks (B6) as (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLO Jarks: DROLO Jand Hyd Mary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel d Observe	POGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations:	agery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	ina (B13) c Plants (B14 ulfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark	E) C1) on Living Roof on (C4) Tilled Soils (es (C3)		ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos	minimum of two cks (B6) as (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLO Band Hyd Barry Indice Surface High W. Saturati Water M. Sedime Drift De Algal M. Iron De Inundati Sparsel d Observer face Water	Poor volume of the property of	agery (B7) Surface (B8) Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt Presence o Recent Iron Thin Muck S Gauge or W Other (Expl.	ina (B13) c Plants (B14 ulfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) 'ell Data (D9) ain in Remark	E) C1) on Living Roof on (C4) Tilled Soils (es (C3)		ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos	minimum of two cks (B6) as (B10) er Table (C2) s (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLO Band Hyd nary Indic Surface High W. Saturati Water M. Sedime Drift De Algal M. Iron De Inundati Sparsel d Observ face Wate ter Table	pogy rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: er Present?	agery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl.	ina (B13) c Plants (B14 ulfide Odor (C inizospheres o f Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): N/A N/A	(S) C1) C1) on Living Roof on (C4) Tilled Soils (rs (C3)		ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos	minimum of two coks (B6) as (B10) er Table (C2) as (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
DROLO arks: DROLO land Hyd mary Indic Surface High W. Saturati Water M. Sedime Drift De Algal M. Iron De Inundat Sparsel d Observ face Wate ter Table uration Pr	pogy rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: er Present?	agery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14 ulfide Odor (C inizospheres o f Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): N/A N/A	(S) C1) C1) on Living Roof on (C4) Tilled Soils (rs (C3)	Seco	ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos FAC-Neutral Tes	minimum of two coks (B6) as (B10) er Table (C2) as (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
Depth (in Depth	pogy rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: er Present? Present? esent?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14 ulfide Odor (C inizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	C1) C1) on Living Root on (C4) Tilled Soils (cs (C3) C6)	Seco	ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos FAC-Neutral Tes	minimum of two coks (B6) as (B10) er Table (C2) as (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
Depth (in Depth	pogy rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: er Present? Present? esent?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14 ulfide Odor (C inizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	C1) C1) on Living Root on (C4) Tilled Soils (cs (C3) C6)	Seco	ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos FAC-Neutral Tes	minimum of two coks (B6) as (B10) er Table (C2) as (C8) e on Aerial Image sed Plants (D1) ition (D2)	require
Depth (in Depth	pogy rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: er Present? Present? esent?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14 ulfide Odor (C inizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	C1) C1) on Living Root on (C4) Tilled Soils (cs (C3) C6)	Seco	ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos FAC-Neutral Tes	minimum of two coks (B6) as (B10) er Table (C2) as (C8) e on Aerial Image sed Plants (D1) ition (D2)	required
DROLO land Hyd mary Indio Surface High W. Saturati Water N. Sedime Drift De Algal M. Iron De Inundat Sparsel d Observ face Wate ter Table uration Pr	pogy rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: er Present? Present? esent?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14 ulfide Odor (C inizospheres o f Reduced Iro Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	C1) C1) on Living Root on (C4) Tilled Soils (cs (C3) C6)	Seco	ndary Indicators (I Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos FAC-Neutral Tes	minimum of two coks (B6) as (B10) er Table (C2) as (C8) e on Aerial Image sed Plants (D1) ition (D2)	required

US Army Corps of Engineers Midwest Region version 2.0

Project/Site:	Willowbrook Solar Farm		City/County:	Preble		Sampling Date: <u>11/4/2017</u>
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-002-WET
Investigator(s):	BJS & MM		Sect	ion, Townshi	ip, Range:	
Landform (hillslope	, terrace, etc.): pasture			Local r	relief (concave, convex, none):	Concave
Slope (%):	0% Lat: 39.	024515	Long:		-83.697479	Datum: WGS84
Soil Map Unit Name	e: AtC2				NWI class	ification: None
Are climatic / hydro	logic conditions on the site typical for	this time of year?	Yes	X No	(If no, explain in Remark	(s.)
Are Vegetation	No , Soil No , or Hydrold	ogy No significantly	disturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , or Hydrold	ogy <u>No</u> naturally pro	blematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach site map	showing sampling	g point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta Hydric Soil Present Wetland Hydrology	? Yes	X No X No	within	Sampled Are a Wetland?		X No
	Tresent: Tes	X No	-			
	y was recently mowed.					
VEGETATION -	Use scientific names of pla				T	
Tree Stratum (Plot		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test workshee	rt:
1. 2.					Number of Dominant Specie	·S
3.		-	-		That Are OBL, FACW, or FA	
4.						-
5					Total Number of Dominant	
			= Total Cover		Species Across All Strata:	1 (B)
	tum (Plot size: 15' radius)				Percent of Dominant Specie That Are OBL, FACW, or FA	
4.					Prevalence Index workshee	et:
5			- Tatal Causa		Tatal 0/ Carran af	Maritim Inc. Inc. o.
Herb Stratum (Plot	size: 5' radius)		= Total Cover		Total % Cover of: OBL species 65%	$\frac{\text{Multiply by:}}{\text{x1 = 0.65}}$
Typha angustife	<u> </u>	60%	Yes	OBL	FACW species 10%	x2 = 0.2
2. Spartina pectina		10%	No	FACW	FAC species	x3 =
3. Juncus effusus		5%	No	OBL	FACU species	x4 =
4					UPL species	x5 =(P)
5. 6.					Column Totals: 0.75	(A) <u>0.85</u> (B)
7.					Prevalence Index =	B/A = 1.13
8.		-	-			·
9.						
10					Hydrophytic Vegetation In	dicators:
11.					V 4 D 1 T 1 f 1 h	donalis die Menededien
12. 13.					X 1-Rapid Test for Hy X 2-Dominance Test i	
14.					X 3-Prevalence Index	
15.			· ——		4-Morphological Ad	aptations ¹ (Provide supporting
16.						on a separate sheet)
17					Problematic Hydro	phytic Vegetation ¹ (Explain)
18.					1 maliantana at budain anil anal	atlanad budualaan, muuat
					¹Indicators of hydric soil and	
20		75%	= Total Cover		be present, unless disturbed	or problematic.
Woody Vine Stratur	- '				Hydrophytic	
1					Vegetation	V Na
2			= Total Cover		Present? Yes	X No
Remarks: (Include	photo numbers here or on a separate	e sheet.)			1	
1						

SOIL Sampling Point: WL-002-WET

rofile Description: (Describ	be to the dep	th neede	ed to document the i	ndicator or c	onfirm the a	bsence o	f indicators.)
epth Mat	-			dox Features				•
inches) Color (mois			Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
	60		, ,	5				
0-12 5Y 6/2			7.5YR 5/8		C	М	Clay loam	
5Y 6/6	35	<u> </u>						
								-
¹ Type: C=Concentration, D=[Depletion, RN	/I=Reduce	ed Matrix, CS=Covere	ed or Coated S	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.
lydric Soil Indicators:						Indic	ators for Pro	oblematic Hydric Soils ³ :
Histosol (A1)			Sandy Glev	ed Matrix (S4))			st Prairie Redox (A16)
Histic Epipedon (A2)			Sandy Redo	, ,	,			-Manganese Masses (F12)
Black Histic (A3)			Stripped Ma	. ,				Surface (S7)
Hydrogen Sulfide (A4)				ky Mineral (F1	1)			Shallow Dark Surface (TF12)
					•			
Stratified Layers (A5)				ed Matrix (F2))		Othe	er (Explain in Remarks)
2 cm Muck (A10)			X Depleted M	, ,				
Depleted Below Dark Su	` ,			Surface (F6)			2	
Thick Dark Surface (A12	•		Depleted Da	ark Surface (F	7)			of hydrophytic vegetation and
Sandy Mucky Mineral (S	1)		Redox Depr	essions (F8)			wetland	d hydrology must be present,
5 cm Mucky Peat or Pea	it (S3)						unles	s disturbed or problematic.
Restrictive Layer (if observed	q).							
Type:	u).							
						Lludria	Cail Dragge	42 Van V Na
Depth (inches):						пушть	Soil Presen	t? Yes X No
emans.								
IYDROLOGY								
IYDROLOGY	rs:							
IYDROLOGY Vetland Hydrology Indicator		ired: che	ck all that apply)				Seco	ondary Indicators (minimum of two required
IYDROLOGY Vetland Hydrology Indicator Primary Indicators (minimum o		ired: che		ed Leaves (B	9)		Seco	ondary Indicators (minimum of two required Surface Soil Cracks (B6)
IYDROLOGY Vetland Hydrology Indicator Primary Indicators (minimum c		ired: che		`	9)		Seco	Surface Soil Cracks (B6)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2)		iired: che	Water-Stain Aquatic Fau	na (B13)	,		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10)
IYDROLOGY Vetland Hydrology Indicator Primary Indicators (minimum of the content of the conten		ired: che	Water-Stair Aquatic Fau True Aquati	na (B13) c Plants (B14))		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)		ired: che	Water-Stair Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (B14) ulfide Odor (C) C1)	s (C3)	Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		ired: che	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B14) ulfide Odor (C uizospheres or) C1) n Living Root	s (C3)	Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		ired: che	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B14) ulfide Odor (C iizospheres or Reduced Iror) C1) n Living Root n (C4)	, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		ired: che	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	na (B13) c Plants (B14) ulfide Odor (C nizospheres or Reduced Iror Reduction in) C1) n Living Root n (C4)	, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	of one is requ		Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (B14) ulfide Odor (C iizospheres or Reduced Iror Reduction in Surface (C7)) C1) n Living Root n (C4)	, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aei	of one is requ	B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14) ulfide Odor (C nizospheres or Reduced Iror Reduction in Surface (C7) fell Data (D9)) C1) n Living Root n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	of one is requ	B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14) ulfide Odor (C iizospheres or Reduced Iror Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Wetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Constitutions:	of one is requ rial Imagery (cave Surface	B7) (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	na (B13) c Plants (B14) ulfide Odor (C izospheres or F Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Concertications: Surface Water Present?	rial Imagery (cave Surface	B7) (B8) X_No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B14) ulfide Odor (C nizospheres or Reduced Iror Reduction in Surface (C7) rell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Vetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aei Sparsely Vegetated Conditional	rial Imagery (cave Surface Yes	B7) (B8) X No _ X No _	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inches	na (B13) c Plants (B14) ulfide Odor (C nizospheres or F Reduced Iror Reduction in Gurface (C7) rell Data (D9) ain in Remark s):2 s):8) C1) n Living Root n (C4) Tilled Soils (C6)	x _x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Concentrations: Surface Water Present? Water Table Present? Saturation Present?	rial Imagery (cave Surface	B7) (B8) X No _ X No _	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B14) ulfide Odor (C nizospheres or F Reduced Iror Reduction in Gurface (C7) rell Data (D9) ain in Remark s):2 s):8) C1) n Living Root n (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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Project/Site:	Willowbrook Solar Farm		City/County:	Preble		Sampling Date: <u>11/4/2017</u>
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-003-UPL
Investigator(s):	BJS & MM		Sect	ion, Townshi	ip, Range:	
Landform (hillslope,	terrace, etc.): hillslope			Local r	relief (concave, convex, none):	Convex
Slope (%):	1% Lat: 39.02486		Long:		-83.693378	Datum: WGS84
Soil Map Unit Name	: JoR1B1				NWI class	ification: None
Are climatic / hydrol	ogic conditions on the site typical for this time of	year?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No , or Hydrology No	significantly d	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , or Hydrology No	_naturally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach site map showing	ng sampling	point loca	tions, trai	nsects, important featu	res, etc.
Hydrophytic Vegeta	tion Present? Yes I	No X	Is the	Sampled Are	ea	
Hydric Soil Present	? Yes	No X		a Wetland?		No X
Wetland Hydrology		No X				
Remarks:						
Crop edge						
VEGETATION -	- Use scientific names of plants.				Г	
Tree Chretime (Diet	oimes (OOI westing	Absolute	Dominant	Indicator	Bla T	4.
Tree Stratum (Plot		% Cover	Species?	Status	Dominance Test workshee	t:
1					Number of Dominant Specie	s
3.					That Are OBL, FACW, or FA	
4.						··
5			·		Total Number of Dominant	
			= Total Cover		Species Across All Strata:	(B)
Capling/Chruh Ctrat	(Plet size: 45! radius				Dercent of Deminant Species	•
	um (Plot size: 15' radius)				Percent of Dominant Species That Are OBL, FACW, or FA	
2.					matric obe, i row, or i r	O(P(B)
2			·			
					Prevalence Index workshee	t:
5						
Llamb Chuahuma (Dlah	oime. El madice		= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot 1. Glycine max	size: <u>5' radius</u>)	45%	Yes	UPL	OBL species FACW species	x1 = x2 =
Solidago canad	lensis	15%	Yes	FACU	FAC species	x3 =
					FACU species 15%	x4 = 0.6
4.					UPL species 45%	x5 = 2.25
5					Column Totals: 0.60	(A) 2.85 (B)
6					Description on Index -	B/A = 4.75
7. 8.					Prevalence Index =	D/A - 4.75
9.						
10.					Hydrophytic Vegetation Inc	dicators:
11						
12.						drophytic Vegetation
13. 14.					2-Dominance Test is 3-Prevalence Index	
15.					<u> </u>	aptations ¹ (Provide supporting
16.						on a separate sheet)
17.						ohytic Vegetation ¹ (Explain)
18.						
					¹ Indicators of hydric soil and	
20			- Tatal Causa		be present, unless disturbed	or problematic.
		60%	= Total Cover			
Woody Vine Stratur	n (Plot size: 30' radius)				Hydrophytic	
1	 /				Vegetation	
2.					Present? Yes	No_X
			= Total Cover			
Romarka: (Include	photo numbers here or on a separate sheet.)					
Tremains. (Illiciade	prioto numbers nere or on a separate sneet.)					

SOIL Sampling Point: WL-003-UPL

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

Depth	Matrix		Red	dox Features						
(inches)	Color (moist)	% Co	olor (moist)	%	Type ¹	Loc ²	Texture	Rema	rks	
			· · ·							
										
							· ·			
							· ·			
¹ Type: C=C	Concentration, D=Depletion	n RM=Reduced M	Matrix CS=Covere	d or Coated Sa	and Grains	² Locati	on: PL=Pore Linin	a M=Matrix		
Hydric Soil		on, rawi–raeduced iv	latrix, CO-COVER	d or coated of	and Oranis.			atic Hydric Soils ³ :		
-			Canada Clava	al Mantrice (C.4)		muic		-		
Histoso	, ,	_		ed Matrix (S4)				rie Redox (A16)		
	Epipedon (A2)	_	Sandy Redo					anese Masses (F12))	
	Histic (A3)	_	Stripped Mat	. ,			Dark Surfa			
Hydrog	gen Sulfide (A4)	_	Loamy Muck	y Mineral (F1)			Very Shallo	ow Dark Surface (TF	12)	
Stratifie	ed Layers (A5)	_	Loamy Gleye	ed Matrix (F2)			Other (Exp	olain in Remarks)		
2 cm N	fuck (A10)		Depleted Ma	itrix (F3)						
Deplete	ed Below Dark Surface (A	A11)	Redox Dark	Surface (F6)						
	Dark Surface (A12)	<i>-</i>		rk Surface (F7)		³ Indicators of hy	drophytic vegetation	and	
	Mucky Mineral (S1)	_	Redox Depre	,	,			ology must be prese		
	fucky Peat or Peat (S3)	_		333.31.3 (1.3)			-	urbed or problematic		
	lucky i cat of i cat (00)						unicss dist	arbed or problematic	-	
Restrictive I	Layer (if observed):									
Type:										
Depth (inches):					Hydric	Soil Present?	Yes	No	Χ
Remarks:	'	<u> </u>								·
HYDROL	OGY									
	drology Indicators:									
-	cators (minimum of one i	o required; check o	II that apply)				Socondani	Indicators (minimum	of two roqui	rod)
	e Water (A1)	s required. Crieck a		- d L (DO)	\			ace Soil Cracks (B6)	Tor two requi	ieu)
	, ,	_		ed Leaves (B9))			, ,		
	/ater Table (A2)	_	Aquatic Fau	. ,				age Patterns (B10)		
	tion (A3)	_		Plants (B14)				Season Water Table	(C2)	
	Marks (B1)	_		ulfide Odor (C1	,			fish Burrows (C8)		
Sedime	ent Deposits (B2)	_	Oxidized Rh	izospheres on	Living Root	s (C3)	Satu	ration Visible on Aer	ial Imagery (C	C9)
Drift De	eposits (B3)	_	Presence of	Reduced Iron	(C4)		Stunf	ted or Stressed Plan	ts (D1)	
Algal M	Mat or Crust (B4)	_	Recent Iron	Reduction in T	illed Soils (0	C6)	Geor	norphic Position (D2)	
Iron De	eposits (B5)	_	Thin Muck S	urface (C7)			FAC-	Neutral Test (D5)		
 Inunda	tion Visible on Aerial Ima	gery (B7)	Gauge or W					, ,		
	ely Vegetated Concave S	_		in in Remarks))					
					<i>'</i>					
Field Obser	vations:									
Surface Wat	ter Present?	res No X	Depth (inches): <u>N/A</u>						
Water Table	Present?	/es No X	Depth (inches): N/A						
Saturation P	Present?	res No X	Depth (inches): N/A	Wetland	Hydrolog	gy Present?	Yes	No	Χ
	pillary fringe)			,		,				
•	ecorded Data (stream gau	ıae. monitorina wel	l. aerial photos pr	evious inspect	ions), if ava	ilable:				
200020 . 10	January Sana (San Sanni gan	.ge,ege.	., aoa. po.o., p.		,,					
Domorko										
Remarks:										

Project/Site:	Willowbrook Solar Farm		City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-003-WET
Investigator(s):	BJS & MM		Sect	ion, Townshi	p, Range:	
Landform (hillslope,	terrace, etc.): hillslope			Local r	relief (concave, convex, none):	Concave
Slope (%):	2% Lat:	39.025152	Long:		-83.693599	Datum: WGS84
Soil Map Unit Name					NWI class	ification: None
Are climatic / hydrol	logic conditions on the site typical	for this time of year?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No , or Hyd	rology No significantly	_		ormal Circumstances" present?	
Are Vegetation		rology No naturally pro			ded, explain any answers in Re	
_	FINDINGS Attach site n					
Hydrophytic Vegeta		•		Sampled Ar	•	00, 010.
Hydric Soil Present				a Wetland?		K No
Wetland Hydrology				a Wolland.	700	<u> </u>
	_		=			
Remarks:						
VEGETATION -	Use scientific names of	nlants				
VEGETATION	OSC SOICHLING HUMES OF	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover		Status	Dominance Test workshee	t:
1	·					
_					Number of Dominant Specie	S
3					That Are OBL, FACW, or FA	C: 2 (A)
4						
5					Total Number of Dominant	0 (D)
			= Total Cover		Species Across All Strata:	(B)
Sanling/Shrub Strat	tum (Plot size: 15' radius	1			Percent of Dominant Species	3
	(Flot 6izo. 10 radias				That Are OBL, FACW, or FA	
2.						
3.						
4.					Prevalence Index workshee	rt:
5						
			_= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot		400/	V	OBL	OBL species 55% FACW species 30%	x1 = 0.55 x2 = 0.6
Typha angustife Phalaris arundi		40% 30%	Yes Yes	OBL FACW	FACW species 30% FAC species	x2 = <u>0.6</u> x3 =
3. Juncus effusus		15%	No	OBL	FACU species 5%	x4 = 0.2
4. Solidago canad		5%	No	FACU	UPL species	x5 =
5.					Column Totals: 0.90	(A) 1.35 (B)
6.			_			
7					Prevalence Index =	B/A = 1.50
8						
9					Hydrophytic Vegetation Inc	diaatawa
10. 11.					Hydrophytic Vegetation Inc	licators:
12.					X 1-Rapid Test for Hy	drophytic Vegetation
13.					X 2-Dominance Test i	
14.					X 3-Prevalence Index	
15.					4-Morphological Ada	aptations ¹ (Provide supporting
16						on a separate sheet)
17					Problematic Hydrop	ohytic Vegetation ¹ (Explain)
18					1	
					¹ Indicators of hydric soil and	·
20		00%	= Total Cover		be present, unless disturbed	or problematic.
		90%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radius	1			Hydrophytic	
1	- ·				Vegetation	
2.					_	X No
			= Total Cover			
Remarks: (Include	photo numbers here or on a sepa	rate sheet.)				

SOIL Sampling Point: WL-003-WET

epth Matrix		RE	dox Features			_	
nches) Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4 2.5Y 5/1	100		_			Loam clay	
4-12 2.5Y 5/2	85	7.5YR 5/8	5	С	М	loam clay	
2.5Y 5/1	10						
			_				
 -			_				
			_				
ype: C=Concentration, D=Deplet	tion DM-Podu	and Matrix, CS=Cover	ad or Coatad	Sand Crains	² l cost	ion: DI =Doro	Lining, M=Matrix.
dric Soil Indicators:	iioii, ixivi–ixedu	Sed Matrix, CS-COVER	ed of Coaled	Sand Grains			blematic Hydric Soils ³ :
Histosol (A1)		Sandy Gley	ed Matrix (S4	1)	maic		t Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Red	•	• /			Manganese Masses (F12)
Black Histic (A3)		Stripped Ma					Surface (S7)
Hydrogen Sulfide (A4)			ky Mineral (F	1)			Shallow Dark Surface (TF12)
Stratified Layers (A5)			ed Matrix (F2	•			r (Explain in Remarks)
2 cm Muck (A10)		X Depleted M		,			, ,
Depleted Below Dark Surface	(A11)		Surface (F6))			
Thick Dark Surface (A12)	,		ark Surface (F			³ Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)			ressions (F8)				hydrology must be present,
5 cm Mucky Peat or Peat (S3)			,				s disturbed or problematic.
estrictive Layer (if observed):							
Type:							
Depth (inches):					Hydric	Soil Present	? Yes <u>X</u> No
marks:					Hydric	Soil Present	? Yes <u>X</u> No
marks: YDROLOGY					Hydric	Soil Present	? Yes X No
/DROLOGY etland Hydrology Indicators:	is required: ch	eck all that apply)			Hydric		? Yes X No
TDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one C Surface Water (A1)	is required: ch	Water-Stair	ned Leaves (E	39)	Hydric	Secor	
YDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one	is required: ch		,	39)	Hydric	Secon	ndary Indicators (minimum of two required
TDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	is required: ch	Water-Stair Aquatic Fau True Aquat	una (B13) ic Plants (B14	1)	Hydric	Secor	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	is required: ch	Water-Stair Aquatic Fau True Aquat	una (B13)	1)	Hydric	Secor	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one X Surface Water (A1) X High Water Table (A2) X Saturation (A3)	is required: ch	Water-Stair Aquatic Fau True Aquat X Hydrogen S	una (B13) ic Plants (B14	4) C1)		Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	is required: ch	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized Rt	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o f Reduced Iro	4) C1) on Living Roo on (C4)	ts (C3)	Secor	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
marks: YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	is required: ch	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized Rt	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o	4) C1) on Living Roo on (C4)	ts (C3)	Secor	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
yDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one 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)		Water-Stair Aquatic Fau True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o f Reduced Iro	4) C1) on Living Roo on (C4)	ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
rDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck	una (B13) ic Plants (B14 Sulfide Odor (0 nizospheres o f Reduced Iro Reduction in	4) C1) on Living Roo on (C4) n Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
rDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one 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)	agery (B7)	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or V	una (B13) ic Plants (B14 sulfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7)	4) C1) on Living Roo on (C4) n Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S	agery (B7)	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or V	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iro Reduction in Surface (C7) Vell Data (D9)	4) C1) on Living Roo on (C4) n Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
warks: YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one 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 Im Sparsely Vegetated Concave Seld Observations:	agery (B7)	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or V	una (B13) ic Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark	4) C1) on Living Roo on (C4) n Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Process Pro	agery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3	4) C1) on Living Roo on (C4) n Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Process Pro	agery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) culfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 8	4) C1) cn Living Roo on (C4) n Tilled Soils () ks)	ts (C3)	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one 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 Im Sparsely Vegetated Concave Seld Observations: urface Water Present? fater Table Present?	agery (B7) Surface (B8) Yes X No Yes X No	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) culfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 8	4) C1) cn Living Roo on (C4) n Tilled Soils () ks)	ts (C3)	Secon ————————————————————————————————————	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
yDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave seld Observations: urface Water Present? vater Table Present? aturation Present? includes capillary fringe)	agery (B7) Surface (B8) Yes X No Yes X No Yes X No	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): 3 s): 8 s): 0	4) C1) C1) on Living Roo on (C4) o Tilled Soils () ks) Wetland	ts (C3) C6)	Secon ————————————————————————————————————	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
wmarks: YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im	agery (B7) Surface (B8) Yes X No Yes X No Yes X No	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): 3 s): 8 s): 0	4) C1) C1) on Living Roo on (C4) o Tilled Soils () ks) Wetland	ts (C3) C6)	Secon ————————————————————————————————————	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
yDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave Seld Observations: urface Water Present? //ater Table Present? aturation Present? includes capillary fringe) escribe Recorded Data (stream gas	agery (B7) Surface (B8) Yes X No Yes X No Yes X No	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): 3 s): 8 s): 0	4) C1) C1) on Living Roo on (C4) o Tilled Soils () ks) Wetland	ts (C3) C6)	Secon ————————————————————————————————————	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
yDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave seld Observations: urface Water Present? fater Table Present? aturation Present? includes capillary fringe)	agery (B7) Surface (B8) Yes X No Yes X No Yes X No	Water-Stair Aquatic Fat True Aquat X Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): 3 s): 8 s): 0	4) C1) C1) on Living Roo on (C4) o Tilled Soils () ks) Wetland	ts (C3) C6)	Secon ————————————————————————————————————	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar	Farm			City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Renev	wables					State: OH	Sampling Point: WL-004-UPL
Investigator(s):	BJS & MM				Sect	ion, Townshi	p, Range:	
Landform (hillslope,	, terrace, etc.): pa	sture				Local r	elief (concave, convex, none):	None
Slope (%):	0% Lat:	39.02437	'2		Long:		-83.690299	Datum: WGS84
Soil Map Unit Name					. J		NWI classi	
·		he site typical for this tin	ne of vear)	Yes	X No	(If no, explain in Remark	
,	· ·	No , or Hydrology	,		_		ormal Circumstances" present?	
Are Vegetation							·	
Are Vegetation		No , or Hydrology _					led, explain any answers in Re	
SUMMARY OF	FINDINGS A					tions, trar	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes		Χ	Is the	Sampled Are		
Hydric Soil Present		Yes X	No		within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No	Х				
Remarks:								
Crop edge								
VEGETATION -	Use scientific	names of plants.						
			Α	bsolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)		Cover	Species?	Status	Dominance Test workshee	t:
1								
							Number of Dominant Species	
3							That Are OBL, FACW, or FA	C:(A)
					·		Total Number of Dominant	
5					= Total Cover		Species Across All Strata:	2 (B)
			_		Total Cover		opooloo / torooo / tir otrata.	(5)
Sapling/Shrub Strat	tum (Plot size: 15	radius)					Percent of Dominant Species	3
4							That Are OBL, FACW, or FA	
0								
0								
4							Prevalence Index workshee	t:
5								
		,	_		= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot)		450/	V	FACIL	OBL species 10%	x1 = x2 =
Schedonorus a. Trifolium praten				45% 20%	Yes Yes	FACU FACU	FACW species 10% FAC species	x2 = <u>0.2</u> x3 =
Spartina pectina				10%	No	FACW	FACU species 75%	x4 = 3
4. Taraxacum offic				5%	No	FACU	UPL species	x5 =
5. Cirsium vulgare				5%	No	FACU	Column Totals: 0.85	(A) 3.2 (B)
6.								
7.							Prevalence Index =	B/A = 3.76
8								
9								
10.							Hydrophytic Vegetation Inc	licators:
11							4 Daniel Took for Uliv	duambo dia 1/a matatian
12. 13.							1-Rapid Test for Hyd 2-Dominance Test is	
14.							3-Prevalence Index	
15.					· 		l ——	aptations ¹ (Provide supporting
16.							l — ' '	on a separate sheet)
17.							Problematic Hydrop	ohytic Vegetation ¹ (Explain)
18.								
19.							¹ Indicators of hydric soil and	wetland hydrology must
20							be present, unless disturbed	or problematic.
				85%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30	' radius)					Hydrophytic	
1							Vegetation	No. V
2					= Total Cover		Present? Yes	No_X_
			_		- rotal Cover			
Remarks: (Include	photo numbers here	e or on a separate shee	t)					
(maidd	,	parato 31100	,					

SOIL Sampling Point: WL-004-UPL

epth Matrix		r.e	edox Features		_		
nches) Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4 10YR 5/3	100					Loam	
4-12 10YR 7/1	85	7.5YR 5/8	15	C	M	Clay	Dry
rpe: C=Concentration, D=Deple	tion, RM=Redu	uced Matrix, CS=Cover	ed or Coated	Sand Grains			Lining, M=Matrix.
Iric Soil Indicators:					Indica		blematic Hydric Soils ³ :
Histosol (A1)			red Matrix (S4)	.)			t Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Red					Manganese Masses (F12)
Black Histic (A3)		Stripped Ma		4)			Surface (S7)
Hydrogen Sulfide (A4)			ky Mineral (F	•			Shallow Dark Surface (TF12)
Stratified Layers (A5)			yed Matrix (F2	<u>(</u>)		Othe	r (Explain in Remarks)
2 cm Muck (A10)		X Depleted M					
_ Depleted Below Dark Surface	(A11)		Surface (F6)			3	
Thick Dark Surface (A12)			ark Surface (F	-/)			of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		Redox Dep	ressions (F8)				hydrology must be present,
5 cm Mucky Peat or Peat (S3))					unless	s disturbed or problematic.
strictive Layer (if observed):			-			-	
Type:							
Depth (inches):					Hydric	Soil Present	? Yes <u>X</u> No
narks:					Hydric s	Soil Present	? Yes <u>X</u> No
/DROLOGY otland Hydrology Indicators:	e is required: cl	neck all that apply)			Hydric s		
TDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one	e is required: ch	1.1.77	ned Leaves (B	39)	Hydric s		ndary Indicators (minimum of two require
TDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one Surface Water (A1)	e is required: cl	Water-Stair	ned Leaves (B	39)	Hydric s		ndary Indicators (minimum of two required Surface Soil Cracks (B6)
TDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	e is required: ch	Water-Stair Aquatic Far	una (B13)	,	Hydric s		ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	e is required: cl	Water-Stair Aquatic Far	una (B13) ic Plants (B14	· -	Hydric s		ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
rDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	e is required: cl	Water-Stain Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor (C) C1)			ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
rDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e is required: cl	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o	() C1) on Living Roo			ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
rDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	e is required: cf	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o f Reduced Iro	() C1) on Living Roo on (C4)	ts (C3)		ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	e is required: ct	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence o	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o f Reduced Iro Reduction in	() C1) on Living Roo on (C4)	ts (C3)		ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
marks: YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one 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)		Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o f Reduced Iron Reduction in Surface (C7)	(c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	ts (C3)		ndary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1)
rDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one 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 In	nagery (B7)	Water-Stair Aquatic Far Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Gulfide Odor (C hizospheres o f Reduced Iron Reduction in Surface (C7) Vell Data (D9)	c) C1) In Living Roo In (C4) Tilled Soils (ts (C3)		ndary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1) Geomorphic Position (D2)
POROLOGY Setland Hydrology Indicators: imary Indicators (minimum of one 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 In Sparsely Vegetated Concave	nagery (B7)	Water-Stair Aquatic Far Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o f Reduced Iron Reduction in Surface (C7)	c) C1) In Living Roo In (C4) Tilled Soils (ts (C3)		ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Procession of the state of the	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14 Gulfide Odor (C hizospheres o f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): N/A	c) C1) In Living Roo In (C4) Tilled Soils (ts (C3)	Secoi	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Process Pro	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14 Gulfide Odor (C hizospheres o f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): N/A	c) C1) In Living Roo In (C4) Tilled Soils (ts (C3)		ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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PUROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one 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 In Sparsely Vegetated Concave eld Observations: urface Water Present? //ater Table Present? aturation Present? includes capillary fringe)	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): N/A s): N/A	C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3) C6)	Secoi	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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Property of the content of the conte	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): N/A s): N/A	C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3) C6)	Secoi	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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Project/Site:	Willowbrook Sc	olar Farm				City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Re	newables						State: OH	Sampling Point: WL-004-WET
Investigator(s):	BJS & MM					Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.):	hillslope					Local	relief (concave, convex, none):	Concave
Slope (%):	2% Lat:		39.0251	52		Long:		-83.693599	Datum: WGS84
Soil Map Unit Name	: JoR1B	1						NWI class	ification: None
Are climatic / hydrol	logic conditions o	on the site typ	ical for this tir	ne of year?)	Yes	X No	(If no, explain in Remark	(s.)
Are Vegetation	No , Soil	No , or	Hydrology	No signi	ficantly d	listurbed?	Are "N	 ormal Circumstances" present	? Yes X No
Are Vegetation	No , Soil		Hydrology				(If need	ded, explain any answers in Re	
=			_				tions, tra	nsects, important featu	res. etc.
Hydrophytic Vegeta Hydric Soil Present' Wetland Hydrology Remarks:	ition Present? ? Present?	Y	es X es X	No		Is the	Sampled Ar a Wetland?	rea	
Depression in cattle		fic names	of plants.					_	
					bsolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radi	ius)		_%	Cover	Species?	Status	Dominance Test workshee	t:
1								Number of Dominant Specie	es.
3.								That Are OBL, FACW, or FA	
4.									
5								Total Number of Dominant	
						= Total Cover		Species Across All Strata:	(B)
2	tum (Plot size:							Percent of Dominant Specie That Are OBL, FACW, or FA	
4.								Prevalence Index workshee	et:
5						= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radiu	ıs)		-				OBL species 30%	x1 = 0.3
1. Scirpus cyperin	nus	· · · · · · · · · · · · · · · · · · ·			25%	Yes	OBL	FACW species 10%	x2 = 0.2
2. Phalaris arundii					10%	Yes	FACW	FAC species	x3 =
3. Juncus effusus					5%	No	OBL	FACU species 5%	x4 = 0.2
Solidago canad Solidago canad Solidago canad	lensis				5%	No	FACU	UPL species Column Totals: 0.45	x5 = (A) 0.7 (B)
6.								Column Totals. 0.43	(A)(B)
7.								Prevalence Index =	B/A = 1.56
8									
9. 10.								Hydrophytic Vegetation In	diantoro
11.								Hydrophytic Vegetation In	licators.
12.								X 1-Rapid Test for Hy	drophytic Vegetation
13.				· ·				X 2-Dominance Test	
14.								X 3-Prevalence Index	
									aptations ¹ (Provide supporting
16.									on a separate sheet)
17. 18.								Problematic Hydro	phytic Vegetation¹ (Explain)
10								¹ Indicators of hydric soil and	wetland hydrology must
20.								be present, unless disturbed	,
					45%	= Total Cover			
Woody Vine Stratur 1. 2.	_ `	30' radius)			= Total Cover		Hydrophytic Vegetation Present? Yes	_XNo
				-		. 5 00101			
Remarks: (Include	photo numbers h	nere or on a s	eparate shee	et.)				•	

SOIL Sampling Point: WL-004-WET

Duefile Deer	nintiani (Dagariha ta	41	de d 6e de eu		aufima tha		finalizatana \	
		tne deptn nee	ded to document the i			ibsence o	r indicators.)	
Depth	Matrix			dox Features	Type ¹	Loc ²	Tauduus	Demandra
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туре	Loc	Texture	Remarks
0-1	2.5Y 4/2	100					Loam clay	
1-12	2.5Y 5/1	85	2.5Y 5/8	10	С	M	loam clay	
	2.5Y 4/2	5						
							· 	
							· 	
1								
- 71		etion, RM=Redu	iced Matrix, CS=Covere	ed or Coated	Sand Grains		on: PL=Pore Lir	
Hydric Soil			0 1 0	111 11 101		Indic		ematic Hydric Soils ³ :
	ol (A1)			ed Matrix (S4)			rairie Redox (A16)
	Epipedon (A2)		Sandy Redo	. ,				nganese Masses (F12)
	Histic (A3)		Stripped Ma	. ,	4)			face (S7)
	gen Sulfide (A4)			ky Mineral (F	•			allow Dark Surface (TF12)
	ed Layers (A5)			red Matrix (F2	!)		Other (E	explain in Remarks)
	/luck (A10)		X Depleted M	. ,				
	ed Below Dark Surface	e (A11)		Surface (F6)			31	budou budo un madado u
	Dark Surface (A12)			ark Surface (F	-7)			hydrophytic vegetation and
	Mucky Mineral (S1)		Redox Depr	ressions (F8)				drology must be present,
5 cm N	Mucky Peat or Peat (S3)					unless di	sturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth ((inches):					Hydric	Soil Present?	Yes X No
11/12/201	001							
HYDROL								
-	drology Indicators:							
	cators (minimum of one	e is required: ch						ry Indicators (minimum of two required)
	e Water (A1)			ed Leaves (B	39)			rface Soil Cracks (B6)
	Vater Table (A2)		Aquatic Fau	. ,				ainage Patterns (B10)
	tion (A3)			c Plants (B14	,			y-Season Water Table (C2)
	Marks (B1)			ulfide Odor (0	,			ayfish Burrows (C8)
	ent Deposits (B2)			nizospheres o	-	ts (C3)		turation Visible on Aerial Imagery (C9)
	eposits (B3)			f Reduced Iro	` ,			unted or Stressed Plants (D1)
	Mat or Crust (B4)			Reduction in	Tilled Soils (C6)		comorphic Position (D2)
	eposits (B5)			Surface (C7)			<u>X</u> FA	C-Neutral Test (D5)
	tion Visible on Aerial Ir	0 , , ,		/ell Data (D9)				
X Sparse	ely Vegetated Concave	Surface (B8)	Other (Expla	ain in Remark	(S)			
Field Obser	vations:							
Surface Wa	ter Present?	Yes X No	Depth (inches	s): 3				
Water Table	e Present?	Yes X No	Depth (inches	s): 10				
Saturation F	Present?	Yes X No		s): 0	Wetlan	d Hydrolog	gy Present?	Yes X No
(includes ca	pillary fringe)		,					
`	. , , ,	gauge, monitorir	ng well, aerial photos, p	revious inspe	ctions), if ava	ailable:		
		-		•	*			
Remarks:								

Project/Site:	Willowbrook So	lar Farm		City/County	Preble		Sa	ampling Da	ite: 11/4/2	2017
Applicant/Owner:	Open Road Rer	newables				State: O	HSa	mpling Po	int: WL-0	05-UPL
Investigator(s):	BJS & MM			Sec	ion, Townsh	ip, Range:				
Landform (hillslope	e, terrace, etc.):	none			Local	relief (concave, convex, no	one): Nor	пе		
Slope (%):	0% Lat:	39.03	2465	Long:		-83.699568		Datum: W	/GS84	
Soil Map Unit Name	e: Ag					NWI	classificat	tion: N	lone	
Are climatic / hydro	ologic conditions of	n the site typical for this	time of year?	Yes	X No	(If no, explain in Re	marks.)			
Are Vegetation	No , Soil		No significantly of		Are "N	ormal Circumstances" pre	sent?	Yes	X_No_	
Are Vegetation	No , Soil		No naturally prol			ded, explain any answers i				
SUMMARY OF	FINDINGS	Attach site map s	howing sampling	g point loca	tions, tra	nsects, important fe	atures	, etc.		
Hydrophytic Vegeta	ation Present?	Yes		Is the	Sampled Ar	rea				
Hydric Soil Present		Yes X		within	a Wetland?	Yes		No_	X	
Wetland Hydrology	/ Present?	Yes	NoX							
Remarks: VEGETATION	Use scienti	fic names of plant	ts.							
			Absolute	Dominant	Indicator					
Tree Stratum (Plot	size: 30' radii	us)	% Cover	Species?	Status	Dominance Test work	sheet:			
1										
· · · · · · · · · · · · · · · · · · ·				· ——		Number of Dominant Sp That Are OBL, FACW, of			1	(A)
4.						mat Ale Obl., FACW, t	JI FAC.		<u>'</u>	(A)
5.						Total Number of Domin	ant			
				= Total Cover		Species Across All Stra	ta:		2	(B)
2.	· ·	15' radius)				Percent of Dominant Sp That Are OBL, FACW, o		50	0%	(A/B)
4.						Prevalence Index work	sheet:			
5							_			
Llamb Chrahima /Dlad	taina. El nadi			= Total Cover		Total % Cover o	f:		ultiply by:	
Herb Stratum (Plot 1. Poa pratensis	t size: 5' radius)	40%	Yes	FAC	OBL species FACW species		_ x1 = x2 =		—
2. Cirsium vulgare	е		20%	Yes	FACU	· -	40%	x3 =	1.2	
3. Solidago canad	densis		10%	No	FACU	FACU species	30%	x4 =	1.2	<u> </u>
4						UPL species		x5 =		—
5. 6.			·			Column Totals:	0.70	_(A)	2.4	(B)
7.						Prevalence Ind	lex = B/A	=	3.43	
8.										
9.										
10.				· 		Hydrophytic Vegetation	on Indica	tors:		
11 12.						1-Rapid Test fo	or Hydror	hytic Veas	etation	
13.						2-Dominance		-	,tation	
14.						3-Prevalence I	ndex is ≤	3.0 ¹		
15.						4-Morphologica				orting
16.						data in Remar				-i-\
18.						Problematic H	yaropnyu	c vegetati	on (Expi	ain)
40				·		¹ Indicators of hydric soil	and wetl	and hydrol	logy must	i
20.						be present, unless distu	ırbed or p	roblematic	o.	
			70%	= Total Cover						
Woody Vine Stratu	m (Plot size:	30' radius)				Hydrophytic Vegetation				
2.						Present?	Yes	No_	X	
				= Total Cover						
Remarks: (Include	nhoto numbero b	ere or on a separate sh	neet)			1				
. tomarno. (moidue	. p. roto mambora m	s.s or on a soparate si	,							

SOIL Sampling Point: WL-005-UPL

Profile Desc	cription: (Describe to	the depth need	ed to document the ir	ndicator or c	onfirm the a	bsence o	f indicators.)		
Depth	Matrix		Red	dox Features			_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks
0-1	10YR 5/3	100					Loam		
1-12	10YR 6/2	60	10YR 6/8	5	С	М	loam clay		Dry
1-12			10111 0/0			101	loan day		Diy
	10YR 7/1	35					· ——		
¹ Type: C=C	Concentration, D=Dep	letion, RM=Reduc	ed Matrix, CS=Covere	d or Coated	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.	
Hydric Soil I								blematic Hydric Soils	s³:
Histoso	ol (A1)		Sandy Gleve	ed Matrix (S4))		Coas	st Prairie Redox (A16)	
	Epipedon (A2)		Sandy Redo	, ,	,			Manganese Masses (F	F12)
	Histic (A3)		Stripped Ma					Surface (S7)	12)
	en Sulfide (A4)			ky Mineral (F1	1)			Shallow Dark Surface	(TF12)
	ed Layers (A5)			ed Matrix (F2	•			r (Explain in Remarks)	
	luck (A10)		X Depleted Ma		,			i (Explain in Nemarks)	1
	` ,	- (044)							
	ed Below Dark Surfac	e (ATT)		Surface (F6)	7)		3 _{1m} =:=== 4	of budges by the comment	tion and
	Dark Surface (A12)			rk Surface (F	7)			of hydrophytic vegetal	
	Mucky Mineral (S1)		Redox Depre	essions (F8)				hydrology must be pre	
5 cm N	lucky Peat or Peat (S	3)					unless	s disturbed or problem	atic.
Restrictive I	_ayer (if observed):								
Туре:									
Depth (i	inches):					Hydric	Soil Present	? Yes	X No
HYDROL	OGY								
	drology Indicators:								
Primary Indi	cators (minimum of or	ne is required: che	eck all that apply)				Secor	ndary Indicators (minin	num of two required)
Surface	e Water (A1)	·	Water-Stain	ed Leaves (B	9)		_	Surface Soil Cracks (I	B6)
High W	/ater Table (A2)		Aquatic Fau	na (B13)	,			Drainage Patterns (B	•
	tion (A3)			Plants (B14)			Dry-Season Water Ta	•
	Marks (B1)			ulfide Odor (C	,			Crayfish Burrows (C8)	` '
	ent Deposits (B2)			izospheres o	•	s (C3)		Saturation Visible on	,
	eposits (B3)			Reduced Iron	-	.5 (55)		Stunted or Stressed F	
	fat or Crust (B4)			Reduction in	,	C6)		Geomorphic Position	, ,
	eposits (B5)		Thin Muck S		Tilled Colls (00)		FAC-Neutral Test (D5	• •
	tion Visible on Aerial	magery (R7)		ell Data (D9)				TAC-Neutral Test (Do	')
	ly Vegetated Concav			in in Remark	٥)				
Sparse	ly vegetated Concave	e Surface (Bo)	Other (Expla	iin in Kemark	s)				
Field Obser	vations:								
Surface Wat	ter Present?	Yes No	X Depth (inches): N/A					
Water Table	Present?	Yes No	X Depth (inches): N/A					
Saturation P	resent?	Yes No): N/A	Wetland	l Hydrolo	gy Present?	Yes	No X
(includes ca	pillary fringe)					-			
•		gauge, monitoring	g well, aerial photos, pr	evious inspe	ctions), if ava	ilable:			
	,	-		•	,				
Remarks:									

Project/Site:	Willowbrook Solar Farm		City/County:	Preble		Sampling Date: <u>11/4/2017</u>
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-005-WET
Investigator(s):	BJS & MM		Sect	ion, Townsh	ip, Range:	
Landform (hillslope	terrace, etc.): none			Local	relief (concave, convex, none):	Concave
Slope (%):	1% Lat: 39.0315	577	Long:		-83.69962	Datum: WGS84
Soil Map Unit Name	e: JoR1B1				NWI class	ification: None
Are climatic / hydrol	logic conditions on the site typical for this t	ime of year?	Yes_	X No	(If no, explain in Remark	is.)
Are Vegetation	No , Soil No , or Hydrology	No significantly di	sturbed?	Are "N	ormal Circumstances" present?	? Yes <u>X</u> No
Are Vegetation	No , Soil No , or Hydrology	No naturally probl	ematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach site map sh	owing sampling	point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta	ation Present? Yes X	No	Is the	Sampled Ar	ea	
Hydric Soil Present	? Yes X	No	within	a Wetland?	Yes	X No
Wetland Hydrology	Present? Yes X	No				
Remarks:						
VECETATION	Line ecientific names of plants					
VEGETATION :	Use scientific names of plants	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	at:
1. Salix nigra		10%	Yes	OBL		
2.					Number of Dominant Specie	s
3					That Are OBL, FACW, or FA	.C: <u>3</u> (A)
4					Total Number of Dessiness	
5		10% =	Total Cover		Total Number of Dominant Species Across All Strata:	3 (B)
		1070	rotal Gover		opeolog / torogg / till ottata.	(5)
Sapling/Shrub Strat	tum (Plot size: 15' radius)				Percent of Dominant Species	s
1					That Are OBL, FACW, or FA	.C: 100% (A/B)
					Dravalance Index workshop	
4. 5.					Prevalence Index workshee	д.
·			Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: <u>5' radius</u>)				OBL species 50%	x1 = 0.5
Typha angustife		40%	Yes	OBL	FACW species15%	x2 =0.3
Spartina pectina	ata	15%	Yes	FACW	FAC species	x3 =
3. 4.					FACU species UPL species	x4 = x5 =
5.					Column Totals: 0.65	(A) 0.8 (B)
6.						(-)
7.					Prevalence Index =	B/A = 1.23
8						
9					Hadaaahada Waadadaa la	dla atawa
10. 11.					Hydrophytic Vegetation Inc	licators:
12.			-		X 1-Rapid Test for Hy	drophytic Vegetation
13.					X 2-Dominance Test i	
14.					X 3-Prevalence Index	
-						aptations ¹ (Provide supporting
16.						on a separate sheet) ohytic Vegetation ¹ (Explain)
17. 18.					Problematic Hydrop	onylic vegetation (Explain)
40			-		¹ Indicators of hydric soil and	wetland hydrology must
20.					be present, unless disturbed	
		55% =	Total Cover			
Woody Vine Stratur	 '				Hydrophytic Vegetation	
1					_	X No
			Total Cover		163	
Remarks: (Include	photo numbers here or on a separate she	eet.)				

SOIL Sampling Point: WL-005-WET

Depth	Matrix		R	edox Features	<u> </u>		-	
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-1	2.5Y 5/2	100			· '		clay	
1-12	2.5Y 5/1	90	5YR 5/8	10	С	М	clay	
				_			·	
				_				
				_				
				_				
				_				
T 0 0	D. D	Letter DM Deat			0 1 0 1	21+		Links A Madein
	concentration, D=Dep Indicators:	letion, RIVI=Real	uced Matrix, CS=Cover	ed or Coated	Sand Grains			Lining, M=Matrix. blematic Hydric Soils ³ :
Histoso			Sandy Gley	ed Matrix (S4	.)	illuic		t Prairie Redox (A16)
	Epipedon (A2)		Sandy Red	•	')			Manganese Masses (F12)
	Histic (A3)		Stripped M					Surface (S7)
	gen Sulfide (A4)			cky Mineral (F	1)			Shallow Dark Surface (TF12)
	ed Layers (A5)			yed Matrix (F2	•			(Explain in Remarks)
	luck (A10)		X Depleted M					,
	ed Below Dark Surfac	e (A11)		k Surface (F6))			
Thick E	Dark Surface (A12)	•	Depleted D	ark Surface (F	- 7)		³ Indicators	of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Redox Dep	ressions (F8)			wetland	hydrology must be present,
5 cm N	lucky Peat or Peat (S	3)					unless	disturbed or problematic.
estrictive L	Layer (if observed):							
Туре:	,							
.)			_					
Depth (inches):					Hydric	Soil Present	? Yes <u>X</u> No
Depth (i						Hydric	Soil Present	? Yes <u>X</u> No
Depth (in property of the prop	OGY drology Indicators:					Hydric		
Depth (in property of the prop	OGY drology Indicators: cators (minimum of or	ne is required: cl				Hydric	Secor	ndary Indicators (minimum of two required
Depth (in the property of the	OGY drology Indicators: cators (minimum of or e Water (A1)	ne is required: cl	Water-Stai	ned Leaves (E	39)	Hydric	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6)
Depth (i emarks: YDROL fetland Hyd erimary India X Surface X High W	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2)	ne is required: cl	Water-Stai Aquatic Fa	una (B13)	ŕ	Hydric	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
Primary India X Surface X High W X Saturat	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3)	ne is required: cl	Water-Stai Aquatic Fa True Aquat	una (B13) tic Plants (B14	l)	Hydric	Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary India X Surface X High W X Satural Water	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	ne is required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S	una (B13) iic Plants (B14 Sulfide Odor (0	l) C1)		Secon X	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (i emarks: YDROL Vetland Hyd Vetland Hyd X Surface X Satural Water Sedime	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	ne is required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (0 hizospheres o	l) C1) on Living Roc		Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Depth (i emarks: IYDROL Vetland Hyo Primary India X Surface X High W X Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	ne is required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of	una (B13) iic Plants (B14 Sulfide Odor (0 hizospheres o of Reduced Iro	F) C1) on Living Roc on (C4)	ts (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Primary India X Surface X High W X Satural Water Sedime Drift De Algal M	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4)	ne is required: cl	Water-Stai Aquatic Fa True Aquati Hydrogen S Oxidized R Presence of Recent Iron	una (B13) ic Plants (B14 Sulfide Odor (0 hizospheres o f Reduced Iro n Reduction in	F) C1) on Living Roc on (C4)	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (i emarks: YDROL Vetland Hyo Vetland Hyo X	oGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5)		Water-Stai Aquatic Fa True Aquati Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7)	l) C1) on Living Roc on (C4) Tilled Soils	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Depth (interpretation of the principle o	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial	lmagery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V	una (B13) iic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9)	P) C1) on Living Roc on (C4) Tilled Soils	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Primary India X Surface X High W X Saturat Water Sedime Drift De Algal M Iron De X Inunda Sparse	ogy drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial	lmagery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7)	P) C1) on Living Roc on (C4) Tilled Soils	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (i emarks: IYDROL Vetland Hyo Vetland Hyo X Surface X High W X Satural Water I Sedime Drift De Algal M Iron De X Inunda Sparse ield Observir	oGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial I	Imagery (B7) e Surface (B8)	Water-Stai Aquatic Fa True Aquati Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) iic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Iain in Remark	P) C1) on Living Roc on (C4) Tilled Soils	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (interpretation of the property of the p	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial I ely Vegetated Concave vations: ter Present?	Imagery (B7) e Surface (B8) Yes <u>X</u> No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) icic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Iain in Remark	P) C1) on Living Roc on (C4) Tilled Soils	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (interpretation of the property of the p	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial I ely Vegetated Concave vations: ter Present?	Imagery (B7) e Surface (B8) Yes <u>X</u> No Yes <u>X</u> No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp	una (B13) ic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Iain in Remark SS):	(S) C1) C1) In Living Roc In (C4) Tilled Soils (S)	ts (C3)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Depth (incomplete in the control of	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial I ely Vegetated Concave vations: ter Present? Present?	Imagery (B7) e Surface (B8) Yes <u>X</u> No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp	una (B13) iic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Iain in Remark Iss): 8	(S) C1) C1) In Living Roc In (C4) Tilled Soils (S)	ts (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (incomplete includes carks:	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial (ely Vegetated Concave vations: ter Present? Present? Present?	Imagery (B7) e Surface (B8) Yes X No Yes X No Yes X No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp Depth (inche) Depth (inche)	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark Suss:	C1) C1) C1) C1) C1) C1) C1) C2) C3) C3) C4) C4) C5) C5) C6) C7) C7) C7) C7) C7) C7) C7) C7) C7) C7	ts (C3) (C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Depth (incomplete to the control of	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial (ely Vegetated Concave vations: ter Present? Present? Present?	Imagery (B7) e Surface (B8) Yes X No Yes X No Yes X No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark Suss:	C1) C1) C1) C1) C1) C1) C1) C2) C3) C3) C4) C4) C5) C5) C6) C7) C7) C7) C7) C7) C7) C7) C7) C7) C7	ts (C3) (C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Depth (incomplete to the control of	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial (ely Vegetated Concave vations: ter Present? Present? Present?	Imagery (B7) e Surface (B8) Yes X No Yes X No Yes X No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp Depth (inche) Depth (inche)	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark Suss:	C1) C1) C1) C1) C1) C1) C1) C2) C3) C3) C4) C4) C5) C5) C6) C7) C7) C7) C7) C7) C7) C7) C7) C7) C7	ts (C3) (C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Depth (includes carbox	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial (ely Vegetated Concave vations: ter Present? Present? Present?	Imagery (B7) e Surface (B8) Yes X No Yes X No Yes X No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp Depth (inche) Depth (inche)	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark Suss:	C1) C1) C1) C1) C1) C1) C1) C2) C3) C3) C4) C4) C5) C5) C6) C6) C7) C7) C7) C7) C7) C7) C7) C7) C7) C7	ts (C3) (C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Depth (incomplete to the control of	OGY drology Indicators: cators (minimum of or e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial (ely Vegetated Concave vations: ter Present? Present? Present?	Imagery (B7) e Surface (B8) Yes X No Yes X No Yes X No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp Depth (inche) Depth (inche)	una (B13) icic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark Suss:	C1) C1) C1) C1) C1) C1) C1) C2) C3) C3) C4) C4) C5) C5) C6) C6) C7) C7) C7) C7) C7) C7) C7) C7) C7) C7	ts (C3) (C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar Farm			City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Renewables					State: OH	Sampling Point: WL-006-UPL
Investigator(s):	BJS & MM			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.): none				Local	relief (concave, convex, none):	None
Slope (%):	0% Lat:	39.036303		Long:		-83.698955	Datum: WGS84
Soil Map Unit Name						NWI classi	ification: None
Are climatic / hydrol	logic conditions on the site t	typical for this time of	year?	Yes	X No	(If no, explain in Remark	.s.)
Are Vegetation	No , Soil No ,	or Hydrology No	significantly d	listurbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation		or Hydrology No				ded, explain any answers in Re	
_						nsects, important featu	
Hydrophytic Vegeta			o <u> </u>		Sampled Ar	•	00, 010.
Hydric Soil Present		Yes N	o X		a Wetland?		NoX
Wetland Hydrology			o X	***************************************	a modana.		X
Remarks:							
VEGETATION -	Use scientific name	es of plants					
VEGETATION	OSC SOICHLING HAIN	co or planto.	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)		% Cover	Species?	Status	Dominance Test workshee	t:
1							
0						Number of Dominant Specie	S
3						That Are OBL, FACW, or FA	C: 0 (A)
4							
5				T-1-1-0		Total Number of Dominant	4 (D)
				= Total Cover		Species Across All Strata:	1 (B)
Sapling/Shrub Strat	tum (Plot size: 15' radius)				Percent of Dominant Species	s
	<u></u> (1.1010)20					That Are OBL, FACW, or FA	
2.			· 			, ,	`
3.							
4						Prevalence Index workshee	rt:
5							
Llast Otraction (Dist	-i Floriday V			= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot 1. Solidago canad			75%	Yes	FACU	OBL species 5%	x1 = x2 =
Cirsium vulgare			10%	No	FACU	FAC species 578	x3 =
Spartina pectina			5%	No	FACW	FACU species 90%	x4 = 3.6
4. Andropogon vir			5%	No	FACU	UPL species	x5 =
5.						Column Totals: 0.95	(A) 3.7 (B)
6							
7						Prevalence Index =	B/A = 3.89
8							
9. 10.						Hydrophytic Vegetation Inc	dicators:
11.						Tryurophytic vegetation inc	ilicators.
12.						1-Rapid Test for Hyd	drophytic Vegetation
13.			· 			2-Dominance Test is	
14.						3-Prevalence Index	
15							aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydrop	ohytic Vegetation ¹ (Explain)
18.			· 			¹ Indicators of hydric soil and	wotland hydrology must
19. 20.						be present, unless disturbed	
20			95%	= Total Cover		be present, unless disturbed	or problematic.
Woody Vine Stratur	m (Plot size: 30' radius)				Hydrophytic	
1			. <u></u>			Vegetation	
2						Present? Yes	NoX
				= Total Cover			
Demonstra (C. 1. 1.	mbata mumboo b	a annuardo els 100					
remarks: (Include	photo numbers here or on	a separate sneet.)					

SOIL Sampling Point: WL-006-UPL

epth _	Matrix									
ches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remar	rks
0-12	2.5Y 6/6	100			-		loam clay		Dry	
				_						
				_	. ——			-		
				_	. ——			-		
/ne: C=Cc	oncentration D=Denl	etion PM-Ped	uced Matrix, CS=Cove	red or Coated	Sand Grains	² l ocati	on: DI -Doro	Lining, M=Ma	ntriv	
	ndicators:	elion, rawi–raedi	uced Matrix, C3-Cover	led of Coaled	Sand Grains.			blematic Hyd		
Histosol			Sandy Gle	yed Matrix (S4	1)	maio		st Prairie Redo		
	pipedon (A2)		Sandy Red		• /			Manganese M	, ,	
-	istic (A3)		Stripped M					Surface (S7)	()	
-	en Sulfide (A4)			cky Mineral (F	1)			Shallow Dark S	Surface (TF	12)
	d Layers (A5)			yed Matrix (F2	•			r (Explain in R		,
	ıck (A10)		Depleted N	•				•	,	
Depleted	d Below Dark Surface	e (A11)		k Surface (F6))					
Thick Da	ark Surface (A12)		Depleted D	ark Surface (I	F7)		³ Indicators	of hydrophytic	vegetation	and
Sandy M	lucky Mineral (S1)		Redox Dep	ressions (F8)			wetland	hydrology mu	st be preser	nt,
5 cm Mu	ucky Peat or Peat (S3	3)					unless	s disturbed or	problematic.	
trictive La	ayer (if observed):									
Type:	, , , , , , , , , , , , , , , , , , , ,									
Depth (ir	nches):					Hydric	Soil Present	?	Yes	No
DROLO	DGY					Hydric	Soil Present	?	Yes	No
DROLC	OGY rology Indicators:					Hydric				
DROLC tland Hydr mary Indica	OGY rology Indicators: ators (minimum of on	e is required: cl			200	Hydric		ndary Indicatol	rs (minimum	
DROLO tland Hydi mary Indica Surface	OGY rology Indicators: ators (minimum of on Water (A1)	e is required: cl	Water-Stai	ned Leaves (E	39)	Hydric	Secol	ndary Indicatol Surface Soil (rs (minimum Cracks (B6)	
DROLC tland Hydica mary Indica Surface High Wa	OGY rology Indicators: ators (minimum of on Water (A1) ater Table (A2)	e is required: cl	Water-Stai Aquatic Fa	una (B13)	,	Hydric	Secol	ndary Indicato Surface Soil (Drainage Patt	rs (minimum Cracks (B6) terns (B10)	of two require
DROLC tland Hydi mary Indica Surface High Wa Saturatio	on (A3)	e is required: cl	Water-Stai Aquatic Fa True Aqua	una (B13) tic Plants (B14	4)	Hydric	Secol	ndary Indicatol Surface Soil (Drainage Patt Dry-Season V	rs (minimum Cracks (B6) terns (B10) Vater Table	of two require
DROLC tland Hydromary Indica Surface High Wa Saturatio Water M	orology Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) farks (B1)	e is required: cl	Water-Stai Aquatic Fa True Aqua Hydrogen S	una (B13) tic Plants (B14 Sulfide Odor (1) C1)		Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8)	of two require
DROLC tland Hydr mary Indica Surface High Wa Saturatic Water M Sedimer	orology Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)	e is required: cl	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	una (B13) tic Plants (B14 Sulfide Odor (G thizospheres c	4) C1) on Living Root		Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri	of two require (C2) al Imagery (C5
DROLC tland Hydr mary Indica Surface High Water M Sedimer Drift Dep	or (A3) larks (B1) nt Deposits (B3)	e is required: cl	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of	una (B13) tic Plants (B14 Sulfide Odor (G chizospheres co of Reduced Iro	4) C1) on Living Root on (C4)	s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant	of two require (C2) al Imagery (C9 ts (D1)
DROLC tland Hydro mary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	or Crust (B4)	e is required: cl	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Irol	una (B13) tic Plants (B14 Sulfide Odor (G thizospheres of Reduced Iron	4) C1) on Living Root on (C4)	s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
DROLO tland Hydro mary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	or Crust (B4) posits (B5)		Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence C Recent Iron Thin Muck	una (B13) tic Plants (B14 Sulfide Odor (Galaicon) thizospheres conf Reduced Iron Reduction in Surface (C7)	4) C1) on Living Root on (C4) n Tilled Soils (s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
DROLO tland Hydi mary Indica Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep	or Crust (B4) consits (B5) con Visible on Aerial I	magery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres conf Reduced Iron Reduction in Surface (C7) Well Data (D9)	4) C1) on Living Root on (C4) n Tilled Soils (s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
DROLC tland Hydr mary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I y Vegetated Concave	magery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N	una (B13) tic Plants (B14 Sulfide Odor (Galaicon) thizospheres conf Reduced Iron Reduction in Surface (C7)	4) C1) on Living Root on (C4) n Tilled Soils (s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
DROLO tland Hydi mary Indica Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Ity Vegetated Concaverations:	magery (B7) s Surface (B8)	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Ghizospheres of Reduced Iron Reduction in Surface (C7) Well Data (D9) lain in Remark	4) C1) on Living Root on (C4) n Tilled Soils (s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
DROLO tland Hydro mary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) atricks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concaverations: ar Present?	magery (B7) Surface (B8)	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Well Data (D9) lain in Remark	4) C1) on Living Root on (C4) n Tilled Soils (s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
DROLO tland Hydi mary Indica Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely Id Observa	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) aters (B1) on Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I by Vegetated Concave ations: Present?	magery (B7) s Surface (B8) Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Well Data (D9) Ilain in Remark es): N/A	4) C1) cn Living Root on (C4) a Tilled Soils ((s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table bws (C8) sible on Aeri ressed Plant Position (D2) Test (D5)	(C2) al Imagery (Csts (D1)
DROLO tland Hydi mary Indica Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely Id Observa	or value of the present?	magery (B7) s Surface (B8) Yes No Yes No	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Well Data (D9) Ilain in Remark es): N/A	4) C1) cn Living Root on (C4) a Tilled Soils ((s (C3)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table ows (C8) sible on Aeri ressed Plant Position (D2)	of two require (C2) al Imagery (C9 ts (D1)
Marks: Mary Indication Priculates Cape In Comparison of	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) flarks (B1) at or Crust (B4) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I by Vegetated Concaverations: ar Present? Present? esent?	magery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Ilain in Remark es): N/A es): N/A	4) C1) cn Living Root on (C4) n Tilled Soils (i) ks) Wetland	s (C3) C6)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table bws (C8) sible on Aeri ressed Plant Position (D2) Test (D5)	(C2) al Imagery (Csts (D1)
Marks: Mary Indication Priculates Cape In Comparison of	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) flarks (B1) at or Crust (B4) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I by Vegetated Concaverations: ar Present? Present? esent?	magery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Ilain in Remark es): N/A es): N/A	4) C1) cn Living Root on (C4) n Tilled Soils (i) ks) Wetland	s (C3) C6)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table bws (C8) sible on Aeri ressed Plant Position (D2) Test (D5)	(C2) al Imagery (Csts (D1)
DROLO tland Hydi mary Indica Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely Id Observa rface Water ater Table I turation Pricudes cap	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) flarks (B1) at or Crust (B4) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I by Vegetated Concaverations: ar Present? Present? esent?	magery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Ilain in Remark es): N/A es): N/A	4) C1) cn Living Root on (C4) n Tilled Soils (i) ks) Wetland	s (C3) C6)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table bws (C8) sible on Aeri ressed Plant Position (D2) Test (D5)	(C2) al Imagery (Csts (D1)
TDROLO tland Hydro mary Indica Surface High Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely Id Observar face Water Table I turation Procludes cap	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) flarks (B1) at or Crust (B4) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I by Vegetated Concaverations: ar Present? Present? esent?	magery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Ilain in Remark es): N/A es): N/A	4) C1) cn Living Root on (C4) n Tilled Soils (i) ks) Wetland	s (C3) C6)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table bws (C8) sible on Aeri ressed Plant Position (D2) Test (D5)	(C2) al Imagery (Csts (D1)
Marks: Marks: Marks: Marks: Marks: Marks: Marks: Setland Hydric Surface High Wa Saturatic Water M Sedimer Drift Der Algal Ma Iron Der Inundatic Sparsely Marks: Mar	pogy Indicators: ators (minimum of on Water (A1) ater Table (A2) on (A3) flarks (B1) at or Crust (B4) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I by Vegetated Concaverations: ar Present? Present? esent?	magery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Ilain in Remark es): N/A es): N/A	4) C1) cn Living Root on (C4) n Tilled Soils (i) ks) Wetland	s (C3) C6)	Secol	ndary Indicator Surface Soil (Drainage Patt Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F FAC-Neutral	rs (minimum Cracks (B6) terns (B10) Vater Table bws (C8) sible on Aeri ressed Plant Position (D2) Test (D5)	(C2) al Imagery (Csts (D1)

Project/Site:	Willowbrook Solar Farm			City/County:	Preble		Sampling Date: 11/4/2017
Applicant/Owner:	Open Road Renewables					State: OH	Sampling Point: WL-006-WET
Investigator(s):	BJS & MM			Secti	on, Townshi	ip, Range:	
Landform (hillslope,	terrace, etc.): none				Local r	relief (concave, convex, none):	Concave
Slope (%):	1% Lat:	39.031577		Long:		-83.69962	Datum: WGS84
Soil Map Unit Name	e: JoR1B1					NWI classi	fication: None
Are climatic / hydrol	logic conditions on the site typic	al for this time of yea	r?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No , or H	lydrology No sig	nificantly d	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , or H	lydrology No nat	urally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach site	map showing s	ampling	point loca	tions, trai	nsects, important featu	res, etc.
Hydrophytic Vegeta					Sampled Ar		
Hydric Soil Present					a Wetland?		(No
Wetland Hydrology	Present? Ye						
Remarks:							
VEGETATION -	Use scientific names	of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	_	% Cover	Species?	Status	Dominance Test workshee	t:
1. Salix nigra			70%	Yes	OBL	Number of Deminant Chasis	•
2. 3.						Number of Dominant Specie That Are OBL, FACW, or FA	
4.							(,,
5.						Total Number of Dominant	
			70%	= Total Cover		Species Across All Strata:	(B)
	tum (Plot size: 15' radius	_)	400/	V	ODI	Percent of Dominant Species	
1. Salix nigra 2.			10%	Yes	OBL	That Are OBL, FACW, or FA	C: 100% (A/B)
2							
						Prevalence Index workshee	t:
5.							
		_	10%	= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot						OBL species 80%	x1 =0.8
Spartina pectina			40%	Yes	FACW	FACW species 40%	x2 = 0.8
						FAC species FACU species	x3 = x4 =
						UPL species	x5 =
5.						Column Totals: 1.20	(A) 1.6 (B)
6.							
7						Prevalence Index =	B/A = 1.33
8							
9. 10.						Hydrophytic Vegetation Inc	licators:
11.						Trydrophytic vegetation inc	noutors.
12.						X 1-Rapid Test for Hyd	drophytic Vegetation
13.						X 2-Dominance Test is	
14						X 3-Prevalence Index	
15							aptations ¹ (Provide supporting
16. 17.							on a separate sheet) phytic Vegetation ¹ (Explain)
18.						i Toblematic Hydrop	Trytic vegetation (Explain)
10						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	
			40%	= Total Cover			
Woody Vine Stratur	- '	_)				Hydrophytic	
1						Vegetation Present? Yes	Y No
⁻ -				= Total Cover		riesein: fes	XNo
		_					
Remarks: (Include	photo numbers here or on a se	parate sheet.)				•	

SOIL Sampling Point: WL-006-WET

ches) Color (moist) %	Color (moist)				Do
		% Type ¹	Loc ²	Texture	Remarks
/pe: C=Concentration, D=Depletion, RM=Red	duced Matrix, CS=Covered or	Coated Sand Grains		n: PL=Pore Lini	
Iric Soil Indicators:			Indicat		natic Hydric Soils ³ :
Histosol (A1)	Sandy Gleyed M	, ,			airie Redox (A16)
Histic Epipedon (A2)	Sandy Redox (S				ganese Masses (F12)
Black Histic (A3)	Stripped Matrix (•		Dark Surfa	,
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Mucky Mi	, ,			low Dark Surface (TF12) plain in Remarks)
2 cm Muck (A10)	Loamy Gleyed M Depleted Matrix			Other (Ex	piani in Kemarks)
Depleted Below Dark Surface (A11)	Redox Dark Surf				
Thick Dark Surface (A12)	Depleted Dark S	` '		³ Indicators of h	ydrophytic vegetation and
Sandy Mucky Mineral (S1)	Redox Depression				rology must be present,
5 cm Mucky Peat or Peat (S3)		()			turbed or problematic.
strictive Layer (if observed):					•
Type:					
Depth (inches):	_		Hydric S	oil Present?	Yes X No
'DROLOGY					
tland Hydrology Indicators:	check all that apply)			Secondar	y Indicators (minimum of two required)
tland Hydrology Indicators: mary Indicators (minimum of one is required: o	check all that apply) Water-Stained L	eaves (B9)			y Indicators (minimum of two required) race Soil Cracks (B6)
tland Hydrology Indicators: mary Indicators (minimum of one is required: of Surface Water (A1) High Water Table (A2)	Water-Stained Lo	313)		Surf X Drai	ace Soil Cracks (B6) nage Patterns (B10)
triand Hydrology Indicators: imary Indicators (minimum of one is required: of Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained L Aquatic Fauna (I True Aquatic Pla	313) ints (B14)		X Drai	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
tland Hydrology Indicators: imary Indicators (minimum of one is required: 6 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide	313) Ints (B14) e Odor (C1)		X Drai Dry-	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8)
triand Hydrology Indicators: imary Indicators (minimum of one is required: of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos	313) ints (B14) e Odor (C1) pheres on Living Ro	ots (C3)	X Drai Dry- Cray Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
etland Hydrology Indicators: imary Indicators (minimum of one is required: of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos	B13) Ints (B14) Odor (C1) Otheres on Living Roluced Iron (C4)	. ,	X Drai Dry- Cra Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
etland Hydrology Indicators: imary Indicators (minimum of one is required: c Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red	B13) ints (B14) e Odor (C1) pheres on Living Roluced Iron (C4) uction in Tilled Soils	. ,	X Drai Dry- Crai Satu X Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) umorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one is required: of 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)	Water-Stained L Aquatic Fauna (I True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa	B13) ints (B14) e Odor (C1) pheres on Living Ro- luced Iron (C4) uction in Tilled Soils ce (C7)	. ,	X Drai Dry- Crai Satu X Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
etland Hydrology Indicators: imary Indicators (minimum of one is required: of 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)	Water-Stained L Aquatic Fauna (I True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D	B13) ints (B14) e Odor (C1) pheres on Living Roluced Iron (C4) uction in Tilled Soils ce (C7) iata (D9)	. ,	X Drai Dry- Crai Satu X Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) umorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one is required: of 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 L Aquatic Fauna (I True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa	B13) ints (B14) e Odor (C1) pheres on Living Roluced Iron (C4) uction in Tilled Soils ce (C7) iata (D9)	. ,	X Drai Dry- Crai Satu X Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) umorphic Position (D2)
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etland Hydrology Indicators: imary Indicators (minimum of one is required: of 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) eld Observations: urface Water Present? Yes X No	Water-Stained L. Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	B13) ints (B14) e Odor (C1) pheres on Living Ro- luced Iron (C4) uction in Tilled Soils ce (C7) lata (D9) Remarks)	. ,	X Drai Dry- Crai Satu X Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) umorphic Position (D2)
triand Hydrology Indicators: imary Indicators (minimum of one is required: of 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) Indicator Vegetated Concave Surface (B8) Indicator Vegetated Concave Surface (B8) Indicator Vegetated Concave Surface (B8)	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	B13) Ints (B14) Podor (C1) Pheres on Living Rolluced Iron (C4) Interest on Tilled Soils Interest on Certain (C7) Interest on C7 Interest	(C6)	X Drai X Drai Dry- Cray Satu X Geo X FAC	ace Soil Cracks (B6) Inage Patterns (B10) Season Water Table (C2) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C9)
etland Hydrology Indicators: imary Indicators (minimum of one is required: of Surface Water (A1) (Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	B13) Ints (B14) Podor (C1) Pheres on Living Rolluced Iron (C4) Interest on Tilled Soils Interest on Certain (C7) Interest on C7 Interest	. ,	X Drai X Drai Dry- Cray Satu X Geo X FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) umorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one is required: of 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) eld Observations: urface Water Present? Yes X Notaturation Present? Yes X Notaturation Present? Ves X Notaturation Present?	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	B13) Ints (B14) Po Odor (C1) Pheres on Living Rolluced Iron (C4) Interest on Tilled Soils Intere	(C6)	X Drai X Drai Dry- Cray Satu X Geo X FAC	ace Soil Cracks (B6) Inage Patterns (B10) Season Water Table (C2) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C9)
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etland Hydrology Indicators: imary Indicators (minimum of one is required: of 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) eld Observations: urface Water Present? Yes X Notaturation Present? Yes X Notaturation Present? Ves X Notaturation Present?	Water-Stained L Aquatic Fauna (E True Aquatic Pla Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	B13) Ints (B14) Po Odor (C1) Pheres on Living Rolluced Iron (C4) Interest on Tilled Soils Intere	(C6)	X Drai X Drai Dry- Cray Satu X Geo X FAC	ace Soil Cracks (B6) Inage Patterns (B10) Season Water Table (C2) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C8) Inage Patterns (C9)
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Project/Site:	Willowbrook Solar Farm	1		City/County:	Preble		Sampling Date: <u>11/5/2017</u>
Applicant/Owner:	Open Road Renewable	s				State: OH	Sampling Point: WL-007-UPL
Investigator(s):	BJS & MM			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.): none				Local	relief (concave, convex, none):	None
Slope (%):	0% Lat:	39.0367	5	Long:		-83.692878	Datum: WGS84
Soil Map Unit Name	e: AtC2					NWI class	ification: None
Are climatic / hydrol	logic conditions on the sit	e typical for this tin	ne of year?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No	, or Hydrology	No significantly d	isturbed?	Are "N	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No	, or Hydrology	No naturally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attack	າ site map sho	wing sampling	point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta	ition Present?	Yes	No X	Is the	Sampled Ar	ea	
Hydric Soil Present	?	Yes X	No		a Wetland?		NoX
Wetland Hydrology	Present?	Yes	No X				
Remarks:							
VEGETATION -	Use scientific nar	nes of plants.					
Tree Ctueture (Diet	001	`	Absolute	Dominant	Indicator	Danis Tark was dalam	4
Tree Stratum (Plot		_)	% Cover	Species?	Status	Dominance Test workshee	t:
1						Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	
4.							··
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Capling/Chruh Ctrat	rum (Diet eizer 15' radi	\				Dercent of Deminant Species	•
	tum (Plot size: 15' radi					Percent of Dominant Species That Are OBL, FACW, or FA	
2.						matric obe, trow, of tr	O(P(B)
2		-					
l . —						Prevalence Index workshee	rt:
5							
Llamb Chrahima (Diah	aina. El madica	`		= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot 1. Andropogon vir		_)	60%	Yes	FACU	OBL species FACW species	x1 = x2 =
Solidago canad			30%	Yes	FACU	FAC species	x3 =
3. Fragaria vesca		-	5%	No	UPL	FACU species 90%	x4 = 3.6
4.						UPL species 5%	x5 = 0.25
5						Column Totals: 0.95	(A) 3.85 (B)
6						Description of Index -	B/A = 4.05
7. 8.						Prevalence Index =	D/A - 4.05
9.							
10.						Hydrophytic Vegetation Inc	dicators:
11							
12.							drophytic Vegetation
13. 14.						2-Dominance Test i 3-Prevalence Index	
15.						l ——	aptations ¹ (Provide supporting
16.							on a separate sheet)
17.							ohytic Vegetation ¹ (Explain)
18.							
						¹ Indicators of hydric soil and	
20			050/	- Total Cause		be present, unless disturbed	or problematic.
			95%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radii	us)				Hydrophytic	
1	- · <u> </u>					Vegetation	
2.						Present? Yes	No X
				= Total Cover	_		
Remarks: (Include	photo numbers here or o	n a separate shee	rī.)				

SOIL Sampling Point: WL-007-UPL

Profile Desc Depth (inches) 0-3	ription: (Describe to Matrix	the depth nee	ded to document the i	ndicator or c	onfirm the a	bsence o	f indicators)	
(inches)	Matrix						i iliaicators.,	
			Re	dox Features				
0.3	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	2.5Y 5/4	100					Silt loam	Dry
3-8	2.5Y 7/1	85	2.5Y 7/8	15	С	M	Sand si lo	,
3-0	2.01 1/1		2.51 1/0			171	Odilu 3i io	
							· ——	
1=	D. D	tion DM Dod			2	21 4	DI Daniel	ining M. Makita
		tion, RIVI=Real	uced Matrix, CS=Cover	ed or Coated S	Sand Grains.			Lining, M=Matrix.
Hydric Soil I			0 1 01			inaic		plematic Hydric Soils ³ :
Histoso	, ,			ed Matrix (S4))			Prairie Redox (A16)
	Epipedon (A2)		Sandy Redo					langanese Masses (F12)
	Histic (A3)		Stripped Ma	. ,				urface (S7)
Hydrog	en Sulfide (A4)		Loamy Muc	ky Mineral (F1)		Very S	hallow Dark Surface (TF12)
Stratifie	ed Layers (A5)		Loamy Gley	ed Matrix (F2))		Other	(Explain in Remarks)
2 cm M	luck (A10)		X Depleted M	atrix (F3)				
Deplete	ed Below Dark Surface	(A11)	Redox Dark	Surface (F6)				
Thick D	Dark Surface (A12)		Depleted Da	ark Surface (F	7)		³ Indicators of	of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Redox Dep	ressions (F8)				nydrology must be present,
	lucky Peat or Peat (S3))		` ,				disturbed or problematic.
								·
	_ayer (if observed):							
Type:								
Depth (i	inches):					Hydric	Soil Present?	Yes X No
Wetland Hyd	drology Indicators:						0	
Wetland Hyd Primary Indic	drology Indicators: cators (minimum of one	e is required: cl	,					dary Indicators (minimum of two required)
Wetland Hyd Primary Indic Surface	drology Indicators: cators (minimum of one e Water (A1)	e is required: cl	Water-Stair	ed Leaves (B	9)			Surface Soil Cracks (B6)
Wetland Hyd Primary Indic Surface High W	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2)	e is required: cl	Water-Stair Aquatic Fau	ina (B13)	,			Surface Soil Cracks (B6) Drainage Patterns (B10)
Wetland Hyd Primary Indic Surface High W	drology Indicators: cators (minimum of one e Water (A1)	e is required: cl	Water-Stair Aquatic Fau	`	,			Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Netland Hyd Primary Indic Surface High W Saturati	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2)	e is required: cl	Water-Stair Aquatic Fau True Aquati	ina (B13))			Surface Soil Cracks (B6) Drainage Patterns (B10)
Wetland Hyd Primary Indic Surface High W Saturati Water M	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) cion (A3)	e is required: cl	Water-Stair Aquatic Fau True Aquati Hydrogen S	ina (B13) c Plants (B14)) (1)	ts (C3)	- I	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	e is required: cl	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ina (B13) c Plants (B14) ulfide Odor (C	, (1) n Living Roo	ts (C3)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime Drift De	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	e is required: cl	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or) c1) n Living Roo n (C4)	, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime Drift De Algal M	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	e is required: cl	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron	ina (B13) c Plants (B14) ulfide Odor (C nizospheres on f Reduced Iror) c1) n Living Roo n (C4)	, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5)		Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S	na (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Gurface (C7)) c1) n Living Roo n (C4)	, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) tion Visible on Aerial Im	nagery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9)) c1) n Living Roo n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of one e Water (A1) //ater Table (A2) //dion (A3) Marks (B1) //ent Deposits (B2) //eposits (B3) //dat or Crust (B4) //eposits (B5) //dion Visible on Aerial Im //dy Vegetated Concave	nagery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Gurface (C7)) c1) n Living Roo n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of one e Water (A1) //ater Table (A2) //dion (A3) Marks (B1) //ent Deposits (B2) //eposits (B3) //dat or Crust (B4) //eposits (B5) //dion Visible on Aerial Im //dy Vegetated Concave	nagery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9)) c1) n Living Roo n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) /tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial In ly Vegetated Concave	nagery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) /ell Data (D9) ain in Remark) c1) n Living Roo n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) /tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) /tion Visible on Aerial In /ly Vegetated Concave //ations: //ere Present?	nagery (B7) Surface (B8) Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt Presence o Recent Iron Thin Muck S Gauge or W Other (Expl.	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) 'ell Data (D9) ain in Remark s): N/A) c1) n Living Roo n (C4) Tilled Soils (, ,		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) /ater Table (A2) /ater Table (B2) /ater Deposits (B3) /ater Orust (B4) /ater Orust (B4	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl.	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) 'ell Data (D9) ain in Remark s): N/A N/A) (c1) (c1) (c1) (c2) (c3) (c4) (c4) (c4) (c4) (c5) (c5) (c5)	C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) /ation (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) /ation Visible on Aerial Im /ally Vegetated Concave //arter Present? // Present? // Present?	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) 'ell Data (D9) ain in Remark s): N/A N/A) (c1) (c1) (c1) (c2) (c3) (c4) (c4) (c4) (c4) (c5) (c5) (c5)	C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap Describe Re	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap Describe Re	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap Describe Re	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes car	drology Indicators: cators (minimum of one cators (minimum cators (m	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl. X Depth (inches X Depth (inches	ina (B13) c Plants (B14) ulfide Odor (C nizospheres or f Reduced Iror Reduction in Surface (C7) fell Data (D9) ain in Remark s): N/A s): N/A s): N/A	(21) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar Farm			City/County:	Preble		Sampling Date: <u>11/5/2017</u>
Applicant/Owner:	Open Road Renewables	3				State: OH	Sampling Point: WL-007-WET
Investigator(s):	BJS & MM			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.): none				Local	relief (concave, convex, none):	Concave
Slope (%):	1% Lat:	39.03669	96	Long:		-83.692906	Datum: WGS84
Soil Map Unit Name	e: AtC2					NWI class	ification: None
Are climatic / hydrol	logic conditions on the site	typical for this tin	ne of year?	Yes	X No	(If no, explain in Remark	(S.)
Are Vegetation	No , Soil No	, or Hydrology	No significantly of	listurbed?	Are "N	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No	, or Hydrology	No naturally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach	site map sho	wing sampling	point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta Hydric Soil Present	tion Present?	Yes X Yes X	No No	Is the	Sampled Ar	ea	
Wetland Hydrology		Yes X	No				
Remarks:							
VEGETATION -	Use scientific nan	nes of plants.				T	
Tree Stratum (Plot	sizo: 20' radiua	`	Absolute	Dominant Species?	Indicator	Dominanaa Taat warkahaa	4.
1. Salix nigra	size: 30' radius)	% Cover 10%	Species? Yes	Status OBL	Dominance Test workshee	T.
2.			1070	163	OBL	Number of Dominant Specie	·S
3.						That Are OBL, FACW, or FA	
4.							··
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
1	um (Plot size: 15' radiu	·				Percent of Dominant Species That Are OBL, FACW, or FA	
. —						Prevalence Index workshee	at:
5.						Trevalence index workened	
-				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)	·			OBL species 50%	x1 = 0.5
Spartina pectina			45%	Yes	FACW	FACW species 45%	x2 = 0.9
2. Typha angustifo			30%	Yes	OBL	FAC species	x3 =
3. Juncus effusus			10%	No	OBL	FACU species	x4 =
4. 5.						UPL species Column Totals: 0.95	x5 = (A) 1.4 (B)
6.						- 0.50	(//)(2)
7.						Prevalence Index =	B/A = 1.47
8.							
9							
10.						Hydrophytic Vegetation Inc	dicators:
11. 12.						X 1-Rapid Test for Hy	draphytic Vagatation
13.						X 2-Dominance Test i	
14.						X 3-Prevalence Index	
15.						4-Morphological Ad	aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydrop	phytic Vegetation ¹ (Explain)
18.						1 Indicators of budris sail and	watland hydrology must
19. 20.						¹ Indicators of hydric soil and be present, unless disturbed	
20			85%	= Total Cover		be present, unless disturbed	or problematic.
Woody Vine Stratur	- '))				Hydrophytic Vegetation	
2						Present? Yes	X No
				= Total Cover			
Remarks: (Include	photo numbers here or or	n a senarate shee	t)			1	
. tomanto. (moidde	psto manipols field of Of	. a coparate sinee	,				

SOIL Sampling Point: WL-007-WET

	ription: (Describe to th	e depth neede			onfirm the ab	sence o	f indicators.)	
Depth	Matrix			lox Features			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5Y 6/1	95	2.5Y 6/8	5	С	М	Clay loam	
							-	
							-	
¹ Type: C=C	oncentration, D=Depleti	on, RM=Reduce	d Matrix, CS=Covered	d or Coated S	and Grains.	² Locati	ion: PL=Pore	Lining, M=Matrix.
Hydric Soil I	ndicators:					Indic	ators for Pro	blematic Hydric Soils ³ :
Histoso	I (A1)		Sandy Gleye	d Matrix (S4)			Coas	t Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Redox	k (S5)			Iron-N	Manganese Masses (F12)
Black H	listic (A3)		Stripped Mat	rix (S6)			Dark S	Surface (S7)
Hydrog	en Sulfide (A4)		Loamy Muck	y Mineral (F1))		Very S	Shallow Dark Surface (TF12)
Stratifie	d Layers (A5)		Loamy Gleye	ed Matrix (F2)			Other	(Explain in Remarks)
2 cm M	uck (A10)		X Depleted Ma	trix (F3)				,
Deplete	ed Below Dark Surface (A11)	Redox Dark	. ,				
	ark Surface (A12)	,		rk Surface (F7	7)		³ Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox Depre		,			hydrology must be present,
	ucky Peat or Peat (S3)			(- /				disturbed or problematic.
	ayer (if observed):							·
Type:	ayer (ii observeu).							
Depth (i	nches):					Hydric	Soil Present	? Yes X No
Deptii (i		-				Tiyunc	Jon Fresent	1 es NO
HYDROL	OGY							
-	rology Indicators:							
	ators (minimum of one i	s required: chec	,					ndary Indicators (minimum of two required)
X Surface	: Water (A1)		Water-Staine	ed Leaves (B9	9)			Surface Soil Cracks (B6)
X High W	ater Table (A2)		Aquatic Faur	na (B13)				Drainage Patterns (B10)
X Saturat	, ,		True Aquatic	Plants (B14)				Dry-Season Water Table (C2)
	Marks (B1)		Hydrogen Su	Ilfide Odor (C	1)			Crayfish Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized Rhi	zospheres on	Living Roots	(C3)		Saturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence of	Reduced Iron	(C4)			Stunted or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iron F	Reduction in T	Filled Soils (C	(6)	X	Geomorphic Position (D2)
Iron De	posits (B5)		Thin Muck S	urface (C7)			X_	FAC-Neutral Test (D5)
Inundat	ion Visible on Aerial Ima	igery (B7)	Gauge or We	ell Data (D9)				
Sparse	y Vegetated Concave S	urface (B8)	Other (Explain	in in Remarks	s)			
Field Observ	rations:							
Surface Wat		Yes X No	Depth (inches)): 6				
Water Table		Yes X No	Depth (inches)					
Saturation P		Yes X No	Depth (inches)		Wetland	Hydrolo	gy Present?	Yes X No
(includes car		103 <u>X</u> 110			Wottana	riyarolo;	gy i resent.	163 <u>X</u> NO
	corded Data (stream gai	ige monitoring	well aerial photos pre	evious inspec	tions) if avai	lable:		
2000,100 110	ss. sou Data (ottodili gai	,oolg	, aonai priotos, pri	2.1040 1110000	,, 11 avai			
Remarks:								

Project/Site:	Willowbrook Sola	ır Farm		City/Count	ty: Preble		Sampling Date: <u>11/6/2017</u>
Applicant/Owner:	Open Road Ren	ewables				State: OH	Sampling Point: WL-008-UPL
Investigator(s):	BJS & MM			Se	ction, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.): n	one			Local	relief (concave, convex, none):	None
Slope (%):	0% Lat:_	39.0509	79	Long:		-83.696266	Datum: WGS84
Soil Map Unit Name	e: RpC2					NWI classi	fication: None
Are climatic / hydrol	logic conditions on	the site typical for this ti	me of year?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil	No , or Hydrology	No significa	antly disturbed?	Are "N	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil	No , or Hydrology	No naturall	y problematic?	(If need	ded, explain any answers in Rei	marks.)
SUMMARY OF	FINDINGS A	Attach site map sh	owing sam	pling point loc	ations, tra	nsects, important featur	es, etc.
Hydrophytic Vegeta	ition Present?	Yes	No>		e Sampled Ar	rea	
Hydric Soil Present		Yes			in a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No >	<u> </u>			
Remarks:							
VEGETATION -	Use scientifi	c names of plants					
Tree Ctreture (Diet		- \	Abso			Danis Tark walls have	4.
Tree Stratum (Plot 1.	size: 30' radiu	s)	_ % C	over Species?	Status	Dominance Test workshee	
2						Number of Dominant Species	s
3.						That Are OBL, FACW, or FA	C:(A)
4							
5				T-1-1-0		Total Number of Dominant	O (D)
				= Total Cove	·r	Species Across All Strata:	(B)
Sapling/Shrub Strat	_					Percent of Dominant Species That Are OBL, FACW, or FA	
						matric obe, i row, of irr	J(NB)
4						Prevalence Index workshee	t:
5							
Harb Stratum (Diat	oizo: El rodino	,	-	= Total Cove	r	Total % Cover of: OBL species	Multiply by:
Herb Stratum (Plot 1. Andropogon vir		/	60	% Yes	FACU	FACW species	x1 = x2 =
Solidago canad	_		30		FACU	FAC species	x3 =
3. Fragaria vesca			59	% No	UPL	FACU species 90%	x4 = 3.6
4						UPL species 5%	x5 = 0.25
5						Column Totals: 0.95	(A)(B)
6. 7.						Prevalence Index =	B/A = 4.05
8.						1 Tovalonoo maax	41.00
9.							
10						Hydrophytic Vegetation Inc	licators:
11.						4 David Task familia	do lo- 4 - 1/2 4 - 4
12. 13.						1-Rapid Test for Hyd 2-Dominance Test is	1 , 0
14.						3-Prevalence Index	
15.						4-Morphological Ada	aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydrop	ohytic Vegetation¹ (Explain)
18. 19.						¹ Indicators of hydric soil and v	wetland hydrology must
20.						be present, unless disturbed	·
			95	% = Total Cove	r	po process, amose distance	or problematic.
Woody Vine Stratur 1 2.	-	0' radius)				Hydrophytic Vegetation Present? Yes	No X
				= Total Cove	r	-	_ _
Remarks: (Include	photo numbers he	re or on a separate she	et.)				

SOIL Sampling Point: WL-008-UPL

pth	Matrix	0/	Calan (!- 4)	0/	Tv==1	Loc ²	T-1/4	-)	
ches)	Color (moist)		Color (moist)	%	Type ¹	Loc	Texture	F	Remarks	
0-3	2.5Y 4/1	100					Silt Cl Lo			
3-12	2.5Y 6/4	80	7.5YR 5/8	20	<u> </u>	M	Loam clay			
		tion, RM=Red	uced Matrix, CS=Cove	red or Coated	Sand Grains.			ining, M=Matrix.		
	ndicators:					Indic		lematic Hydric So		
Histoso	, ,			yed Matrix (S4))			Prairie Redox (A16	•	
-	pipedon (A2)		Sandy Rec					langanese Masses	(F12)	
-	Histic (A3)		Stripped M	. ,				urface (S7)		
	en Sulfide (A4)			cky Mineral (F1	•			hallow Dark Surface		
_	ed Layers (A5)			yed Matrix (F2	2)		Other	(Explain in Remark	s)	
_	luck (A10)		Depleted N							
- '	ed Below Dark Surface	(A11)		k Surface (F6)			2			
_	Oark Surface (A12)			ark Surface (F	7)			of hydrophytic veget		
_	Mucky Mineral (S1)		Redox Dep	ressions (F8)				nydrology must be p		
5 cm M	lucky Peat or Peat (S3)						unless	disturbed or proble	matic.	
	ayer (if observed):									
Type:			-			Unadala	0 - 11 D 40	V	N.	
						пушть	Soil Present?	Yes_	No_	Х
Depth (ii	nches):		<u> </u>							
DROL(OGY		-							
DROLO	OGY trology Indicators:	is required: o	heck all that apply)				Secon	dary Indicators (min	imum of two re	auired)
DROL(tland Hyd mary Indic	OGY drology Indicators: cators (minimum of one	: is required: c		ned Leaves (B	(9)		_	dary Indicators (min		quired)
DROL(tland Hyd mary Indic Surface	OGY drology Indicators: cators (minimum of one	is required: c	Water-Stai	ned Leaves (B	9)		(Surface Soil Cracks	(B6)	quired)
DROL(tland Hyd mary Indic Surface High W	OGY Irology Indicators: cators (minimum of one water (A1) /ater Table (A2)	is required: c	Water-Stai Aquatic Fa	una (B13)	,			Surface Soil Cracks Orainage Patterns (E	(B6) 310)	quired)
DROLO tland Hyd mary Indic Surface High W Saturati	OGY Irology Indicators: cators (minimum of one a Water (A1) //ater Table (A2) //oion (A3)	is required: c	Water-Stai Aquatic Fa True Aqua	una (B13) tic Plants (B14)			Surface Soil Cracks Drainage Patterns (B Dry-Season Water T	(B6) 310) able (C2)	quired)
DROLO tland Hyd mary Indic Surface High W Saturati Water N	OGY Irology Indicators: cators (minimum of one e Water (A1) //ater Table (A2) //on (A3) Marks (B1)	is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen S	una (B13) tic Plants (B14 Sulfide Odor (C) C1)	is (C3)		Surface Soil Cracks Drainage Patterns (I Dry-Season Water T Crayfish Burrows (C	(B6) B10) able (C2)	
DROLO tland Hyd mary Indic Surface High W Saturati Water N Sedime	OGY drology Indicators: cators (minimum of one water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen 9 Oxidized R	una (B13) tic Plants (B14 Sulfide Odor (C hizospheres o) C1) n Living Roo	ts (C3)		Surface Soil Cracks Drainage Patterns (I Dry-Season Water T Crayfish Burrows (C Saturation Visible or	(B6) 310) able (C2) 8) n Aerial Imager	
DROLO tland Hyd mary Indic Surface High W Saturati Water M Sedime Drift De	OGY Irology Indicators: cators (minimum of one water (A1) Irater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of	una (B13) tic Plants (B14 Sulfide Odor (C hizospheres of of Reduced Iron) C1) n Living Roo n (C4)	` ,		Surface Soil Cracks Drainage Patterns (I Dry-Season Water T Crayfish Burrows (C Saturation Visible or Stunted or Stressed	(B6) 310) Fable (C2) 8) Aerial Imager Plants (D1)	
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Project/Site:	Willowbrook Solar Farm	l .		City/County:	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Renewable	S				State: OH	Sampling Point: WL-008-WET
Investigator(s):	BJS & MM			Sect	ion, Townshi	ip, Range:	
Landform (hillslope,	terrace, etc.): none				Local r	relief (concave, convex, none):	Concave
Slope (%):	1% Lat:	39.050521		Long:		-83.69656	Datum: WGS84
Soil Map Unit Name	e: RpC2					NWI classif	ication: PEM1C
Are climatic / hydrol	ogic conditions on the site	e typical for this time	of year?	Yes	X No	(If no, explain in Remarks	s.)
Are Vegetation	No , Soil No	, or Hydrology N	o significantly d	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation		, or Hydrology N	o naturally prob	lematic?	(If need	ded, explain any answers in Rer	narks.)
SUMMARY OF	FINDINGS Attach	site map show	 /ing sampling	point loca	tions, tra	nsects, important featur	es, etc.
Hydrophytic Vegeta Hydric Soil Present? Wetland Hydrology Remarks:	?	Yes X Yes X Yes X	No No		Sampled Ar a Wetland?		No
VEGETATION -	Use scientific nan	nes of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Cover	Species?	Status	Dominance Test worksheet	:
1						Number of Dominant Species	
3.						That Are OBL, FACW, or FAC	
4.						, ,	
5.						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Capling/Chruh Strat	rum (Plot sizo: 15' radii	10)				Percent of Dominant Species	
1. Salix nigra	<u>um</u> (Plot size: 15' radiu	<u>, is</u>)	40%	Yes	OBL	That Are OBL, FACW, or FAC	
							(112)
4						Prevalence Index worksheet	:
5						T	AA 10: 1 1
Herb Stratum (Plot	size: 5' radius	`	40%	= Total Cover		Total % Cover of: OBL species 80%	$\frac{\text{Multiply by:}}{\text{x1 = 0.8}}$
Typha angustifo		_)	40%	Yes	OBL	FACW species 60 76	x2 =
Solidago canad			15%	Yes	FACU	FAC species	x3 =
3. Schedonorus a	rundinaceus		10%	No	FACU	FACU species 30%	x4 = 1.2
4. Cirsium arvense	е		5%	No	FACU	UPL species	x5 =
5						Column Totals: 1.10	(A)(B)
6						Prevalence Index = I	3/A = 1.82
7. 8.				-		Prevalence index – i	D/A - 1.02
9.							
10.						Hydrophytic Vegetation Ind	icators:
11							
						1-Rapid Test for Hyd	
13. 14.						X 2-Dominance Test is X 3-Prevalence Index i	
15.							ptations ¹ (Provide supporting
16.						<u> </u>	on a separate sheet)
17.						Problematic Hydrop	hytic Vegetation ¹ (Explain)
18						1	
l						¹ Indicators of hydric soil and v	
20			700/	= Total Cover		be present, unless disturbed	or problematic.
Woody Vine Stratur 1. 2.	<u>n</u> (Plot size: <u>30' radi</u> u	us)		= Total Cover		Hydrophytic Vegetation Present? Yes	<u> </u>
				. 5.31 00001			
Remarks: (Include	photo numbers here or o	n a separate sheet.)				1	

SOIL Sampling Point: WL-008-WET

0-2 10YR 3/1 100 S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 2-12 2.5Y 5/1 85 10YR 3/1 15 D M S 3-14 3-15 3-15 3-15 3-15 3-15 3-15 3-15 3-15	t loam
2-12 2.5Y 5/1 85 10YR 3/1 15 D M S Appendix Commonstration Deposition RM=Reduced Matrix CS=Covered or Coated Sand Grains.	
Inc Soil Indicators: Indicator Indicators: Indicator Institute Epipedon (A2) Black Histic (A3) Stripped Matrix (S4) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Sendy Mucky Mineral (F1) Depleted Dark Surface (F6) Thick Dark Surface (A12) Sendy Mucky Mineral (S1) Som Mucky Peat or Peat (S3) Intrictive Layer (if observed): Type: Depth (inches): Type: Depth (inches): Mater Alard Mydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	. I I I I I I I I I I I I I I I I I I I
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Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Finick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Prescript (Inches): Hydric Soil Trictive Layer (If observed): Type: Depth (Inches): Hydric Soil Trictive Layer (If observed): Type: Depth (Inches): Water-Stained Leaves (B9) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Indicators Indicators Sandy Redox (S5) Loamy Medox (S5) Satiny Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (S6) Loamy Mucky Mineral (F1) Redox Depressions (F8) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Finick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) President Depressions (F8) Depleted Dark Surface (F7) Finick Dark Surface (F8) Finick Dark Surface (F7) Finick Dark Surface (F8) Finick Dark Surface (F8) Finick Dark Surface (F8) Finick Dark Surface (F8) Finick Dark Surface (F7) Finick Dark Surface (F8) Finick D	
Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) X Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Trictive Layer (if observed): Type: Depth (inches): Hydric Soil Trictive Layer (if observed): Type: Depth (inches): Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Other (Explain in Remarks)	L=Pore Lining, M=Matrix.
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sem Mucky Mineral (S1) Sem Mucky Peat or Peat (S3) Proteive Layer (if observed): Type: Depth (inches): Hydric Soil Barks: DROLOGY and Hydrology Indicators: arry Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Recont Iron Remarks) First Redox Depressions (F8) Water-Stained Leaves (B9) Hydric Soil Hydric Soil Hydric Soil Saturation (A3) Firue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Fin Deposits (B5) Interval Drift (Explain in Remarks) First Redox Darks Water (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	for Problematic Hydric Soils ³ :
Black Histic (A3) Hydrogen Sulfide (A4) Straitfied Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Some Mucky Peat or Peat (S3) Hydric Value Layer (if observed): Type: Depth (inches): Hydric Soil Burface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) 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) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Redox Dark Surface (F6) Depleted Matrix (F2) Redox Dark Surface (F6) Depleted Dark Surface (F6) Redox Dark Surface (F6) Redox Depressions (F8) Hydric Soil Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Redox Dark Surface (B8) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	Coast Prairie Redox (A16)
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Intictive Layer (if observed): Type: Depth (inches): Depth (inches): Depth (inches): Depth (Matrix (F2) Aquatic Fauna (B13) Saturation (A3) Water Agaits (A1) Water Stained Leaves (B9) Aquatic Fauna (B13) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Mucky Mineral (F1) Loamy Mucky Mineral (F1) Redox Depressions (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Pepleted Dark Surface (F7) Redox Depressions (F8) Pepleted Dark Surface (F7) Redox Depressions (F8) Pepleted Matrix (F2) Redox Dark Surface (F7) Redox Depressions (F8) Pepleted Matrix (F3) Redox Dark Surface (F7) Redox Dark Surface (F8) Phydrogen Sulfide Core Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	Iron-Manganese Masses (F12)
Stratified Layers (A5) 2 cm Muck (A10) 2 cm Muck (A10) 3 Depleted Below Dark Surface (A11) 3 Redox Dark Surface (F6) 3 Pepleted Dark Surface (F7) 3 Redox Dark Surface (F7) 3 Redox Depressions (F8) Thick Dark Surface (A12) 5 cm Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) **Trictive Layer (if observed): Type: Depth (inches): Depth (inches): Bary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Loamy Gleyed Matrix (F2) X Depleted Matrix (F2) Redox Dark Surface (F6) Redox Dark S	Dark Surface (S7)
2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) S cm Mucky Peat or Peat (S3) Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Barks: DROLOGY Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron April (Barks) Sparsely Vegetated Concave Surface (B8) Depleted Matrix (F3) Redox Dark Surface (F6) Redox Depressions (F8) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Dark Surface (F6) Red	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Strictive Layer (if observed): Type: Depth (inches): Branks: DROLOGY Starde Water (A1) Surface Water (A1) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Inches (A11) Thick Dark Surface (A12) Depleted Dark Surface (F6) Redox Depressions (F8) Pepthed Dark Surface (F6) Redox Dark Surface (F6) Pepthed Dark Surface (F7) Phydric Soil Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	Other (Explain in Remarks)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Som Mucky Peat or Peat (S3) Itrictive Layer (if observed): Type: Depth (inches): BROLOGY Itland Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Suth Mydrology Indicators (Minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Frue Aquatic Fauna (B13) True Aquatic Plants (B14) 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) Depleted Dark Surface (F7) Redox Depressions (F8) **Hydroc Soil Hydric Soil **Hydric Soil Hydric Soil **Hydric Soil Hydric Soil **Hydric Soil **Hydric Soil Hydric Soil Hydric Soil Hydroc Soil Hydroc Soil Hydroc Soil Hydroc Soil High Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Fresence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Strictive Layer (if observed): Type: Depth (inches): Depth (inches): Mydric Soil Tarks: TOROLOGY Itland Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sutrand (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Innudation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Meter Marks (B1) Redox Depressions (F8) Hydric Soil Hydric Soil Hydric Soil Hydric Soil Hydric Soil Hydra (B1) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	dicators of hydrophytic vegetation and
strictive Layer (if observed): Type: Depth (inches): Hydric Soil Thres: Depth (inches): Type: Depth (inches): Hydric Soil Thres: TOROLOGY Itland Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Saturation (A3) True Aquatic Fauna (B13) Saturation (A3) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Innulation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	wetland hydrology must be present,
Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Thris: Type: Depth (inches): Hydric Soil Torread and Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Thin Muck Surface (C7) Inundation Nisible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	unless disturbed or problematic.
Type:	
Depth (inches): Hydric Soil DROLOGY Itand Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
TDROLOGY tland Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	N
tland Hydrology Indicators: mary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Mater Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Flants (B14) 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) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	Present? Yes X No No
etland Hydrology Indicators: imary Indicators (minimum of one is required: check all that apply) (Surface Water (A1)	
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) True Aquatic Plants (B14) 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) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
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) Aquatic Fauna (B13) True Aquatic Plants (B14) 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) Gauge or Well Data (D9) Other (Explain in Remarks)	Secondary Indicators (minimum of two required
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) True Aquatic Plants (B14) 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) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Cracks (B6)
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) 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) Gauge or Well Data (D9) Other (Explain in Remarks)	X Drainage Patterns (B10)
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) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Dry-Season Water Table (C2)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks)	X Geomorphic Position (D2)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	X FAC-Neutral Test (D5)
ld Observations:	
ırface Water Present? Yes X No Depth (inches): 2	
ater Table Present? Yes No X Depth (inches): N/A	
turation Present? Yes X No Depth (inches): 0 Wetland Hydrology P	esent? Yes X No
cludes capillary fringe)	
escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
emarks:	

Project/Site:	Willowbrook Solar Farm			City/County:	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Renewables					State: OH	Sampling Point: WL-009-UPL
Investigator(s):	BJS & MM			Sect	ion, Townshi	ip, Range:	
Landform (hillslope,	, terrace, etc.): none				Local r	relief (concave, convex, none):	None
Slope (%):	0% Lat:	39.048824		Long:		-83.677168	Datum: WGS84
Soil Map Unit Name	e: LoC2					NWI class	ification: None
Are climatic / hydrol	logic conditions on the site ty	pical for this time of ye	ar?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No , o	or Hydrology <u>No</u> s	ignificantly d	listurbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , o	or Hydrology <u>No</u> n	aturally prob	olematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach s	ite map showing	sampling	g point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta	ation Present?	Yes No	Х	Is the	Sampled Ar	ea	
Hydric Soil Present		Yes No	Х	within	a Wetland?	Yes	No X
Wetland Hydrology	Present?		Х				
Remarks:							
VEGETATION -	Use scientific name	s of plants.				Г	
To a Otraction (Dist			Absolute	Dominant	Indicator		
Tree Stratum (Plot			% Cover	Species?	Status	Dominance Test workshee	t:
1						Number of Dominant Specie	9
3.						That Are OBL, FACW, or FA	
4.							```
5.						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Cambina /Chauch Ctuat	hum (District) 451 madius	`				Dancant of Dancin ant Cuasia	_
	tum (Plot size: 15' radius)				Percent of Dominant Species That Are OBL, FACW, or FA	
2.						mat Ale ODL, FACW, of FA	C(A/B)
2							
				·		Prevalence Index workshee	rt:
5							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: <u>5' radius</u>)		60%	Voc	UPL	OBL species FACW species	x1 = x2 =
Glycine max Cirsium arvense	ρ		20%	Yes Yes	FACU	FAC species	x2 =
3.	<u> </u>			100	17100	FACU species 20%	x4 = 0.8
4.						UPL species 60%	x5 = 3
5.						Column Totals: 0.80	(A) 3.8 (B)
6							
7. 8.						Prevalence Index =	B/A = 4.75
9.							
10.						Hydrophytic Vegetation Inc	dicators:
11.							
12							drophytic Vegetation
13.						2-Dominance Test i	
14						3-Prevalence Index	is ≤3.0° aptations¹ (Provide supporting
15. 16.							on a separate sheet)
17.							phytic Vegetation ¹ (Explain)
18.							
19.						¹ Indicators of hydric soil and	wetland hydrology must
20						be present, unless disturbed	or problematic.
			80%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radius	\				Hydrophytic	
1	- · <u> </u>	/				Vegetation	
2.						_	No X
				= Total Cover			<u>—</u>
Remarks: (Include	photo numbers here or on a	a separate sheet.)					

SOIL Sampling Point: WL-009-UPL

nches) 0-3 3-6 6-12 Type: C=Conc ydric Soil Indi	2.5Y 3/1 2.5Y 6/4 2.5Y 6/4	100	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
3-6 6-12	2.5Y 6/4	100			1 7 50		10/11010	Remarks
6-12							Clay loam	
Type: C=Cond	2.5Y 6/4	100					Loam clay	
		90	2.5Y 6/8	10	C	M	Loam clay	
		tion, RM=Redu	uced Matrix, CS=Cover	red or Coated	Sand Grains.		on: PL=Pore Lining	g, M=Matrix. atic Hydric Soils³:
Histosol (A			Sandy Glev	ed Matrix (S4)			rie Redox (A16)
	pedon (A2)		Sandy Red		'			anese Masses (F12)
Black Histi	. ,		Stripped M				Dark Surfac	, ,
Hydrogen	Sulfide (A4)		Loamy Mud	cky Mineral (F)		Very Shallo	w Dark Surface (TF12)
Stratified L	Layers (A5)		Loamy Gle	yed Matrix (F2)		Other (Exp	lain in Remarks)
2 cm Muck	k (A10)		Depleted M	latrix (F3)			· <u></u>	
Depleted F	Below Dark Surface	(A11)	Redox Darl	k Surface (F6)				
	k Surface (A12)		Depleted D	ark Surface (F	7)			drophytic vegetation and
	cky Mineral (S1)		Redox Dep	ressions (F8)			•	plogy must be present,
5 cm Muck	ky Peat or Peat (S3))					unless distu	irbed or problematic.
strictive Lay	er (if observed):							
Depth (inch	hes):					Hydric	Soil Present?	Yes No X
etland Hydrol	logy Indicators:							
etland Hydrol rimary Indicato	logy Indicators: ors (minimum of one	e is required: ch						Indicators (minimum of two required
etland Hydrol rimary Indicato Surface W	logy Indicators: ors (minimum of one Vater (A1)	e is required: ch	Water-Stail	ned Leaves (B	9)		Surfa	ce Soil Cracks (B6)
etland Hydrol imary Indicato Surface W High Wate	logy Indicators: ors (minimum of one /ater (A1) er Table (A2)	e is required: ch	Water-Stair Aquatic Far	una (B13)	,		Surfa Drain	ce Soil Cracks (B6) age Patterns (B10)
etland Hydrol imary Indicato Surface W High Wate Saturation	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) n (A3)	e is required: ch	Water-Stain Aquatic Far True Aquat	una (B13) ic Plants (B14)		Surfa Drain Dry-S	ce Soil Cracks (B6) age Patterns (B10) season Water Table (C2)
etland Hydrol rimary Indicato Surface W High Wate Saturation Water Mar	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) n (A3) rks (B1)	e is required: ch	Water-Stain Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor (C) (1)	to (C2)	Surfa Drain Dry-S Crayf	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) ish Burrows (C8)
etland Hydrol rimary Indicato Surface W High Wate Saturation Water Mar Sediment	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) i (A3) rks (B1) Deposits (B2)	e is required: ch	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o) (1) n Living Roo	ts (C3)	Surfa Drain Dry-S Crayf Satur	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9)
etland Hydrol imary Indicato Surface W High Wate Saturation Water Mar Sediment	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) sits (B3)	e is required: ch	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iro) c1) n Living Roo n (C4)	` ,	Surfa Drain Dry-S Crayf Satur	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
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etland Hydrol imary Indicato Surface W High Wate Saturation Water Mar Sediment I Drift Depos Algal Mat o Iron Depos Inundation Sparsely W eld Observati	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) i Visible on Aerial Im /egetated Concave ions: Present?	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark s): N/A s): N/A) (21) In Living Roof In (C4) Tilled Soils (C6)	Surfa Drain Dry-S Crayf Satur Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
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retland Hydrol rimary Indicate Surface W High Wate Saturation Water Mar Sediment I Drift Depos Algal Mat o Iron Depos Inundation Sparsely V retla Observati rurface Water Favater Table Presence Includes capilla Describe Recore	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) i Visible on Aerial Im /egetated Concave ions: Present? esent? eary fringe)	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control Reduced Iron Reduction in Surface (C7) Vell Data (D9) Italian in Remark s): N/A s): N/A) (21) (21) (21) (24) (24) (25) (26) (26) (27) (27) (27) (27) (27) (27) (27) (27	C6)	Surfa Drain Dry-S Crayf Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) ration Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
rimary Indicate Surface W High Wate Saturation Water Mar Sediment Drift Depos Algal Mat of Iron Depos Inundation Sparsely V Seld Observati Surface Water Favater Table Preseaturation Preseaturation Preseaturation Record	logy Indicators: ors (minimum of one /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial Im /egetated Concave ions: Present? esent? esent? eary fringe) rded Data (stream g.	nagery (B7) Surface (B8) Yes No Yes No Yes No auge, monitorir	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres o of Reduced Iron n Reduction in Surface (C7) Vell Data (D9) lain in Remark s): N/A s): N/A orevious inspe) (21) (21) (21) (24) (24) (25) (26) (26) (27) (27) (27) (27) (27) (27) (27) (27	C6)	Surfa Drain Dry-S Crayf Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) ration Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)

Project/Site:	Willowbrook Solar Fa	rm		City/County:	Preble		Sampling Date: <u>11/6/2017</u>
Applicant/Owner:	Open Road Renewal	oles				State: OH	Sampling Point: WL-009-WET
Investigator(s):	BJS & MM			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.): none				Local	relief (concave, convex, none	:): Concave
Slope (%):	1% Lat:	39.0488	75	Long:		-83.676998	Datum: WGS84
Soil Map Unit Name	e: LoC2					NWI clas	ssification: None
Are climatic / hydrol	logic conditions on the	site typical for this ti	me of year?	Yes		(If no, explain in Rema	
Are Vegetation			No significantly			ormal Circumstances" preser	
Are Vegetation			No naturally pro			ded, explain any answers in F	
		ch site map sh			tions, tra	nsects, important feat	ures, etc.
Hydrophytic Vegeta		Yes X	No	Is the	Sampled A		
Hydric Soil Present		Yes X Yes X	No No		a Wetland?	Yes_	No
Wetland Hydrology	Present?	Yes X	No	-			
Remarks: VEGETATION -	Use scientific n	ames of plants					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test worksho	eet:
1. Salix nigra			30%	Yes	OBL		
2. Acer rubrum 3.			15%	Yes	FAC	Number of Dominant Spec That Are OBL, FACW, or F	
4.						That Ale Obl., I ACW, of I	Λο. 4 (Λ)
5.						Total Number of Dominant	
			45%	= Total Cover		Species Across All Strata:	5 (B)
1. Salix nigra 2.	tum (Plot size: 15' ra	·	5%	Yes	OBL	Percent of Dominant Spec That Are OBL, FACW, or F	
						Prevalence Index worksh	eet:
5				= Total Cover		Total % Cover of	Multiply by
Herb Stratum (Plot	size: 5' radius)	5%	= Total Cover		Total % Cover of: OBL species 75%	$\frac{\text{Multiply by:}}{\text{x1 = 0.75}}$
Typha angustifo			40%	Yes	OBL	FACW species	x2 =
2. Solidago canad	lensis		30%	Yes	FACU	FAC species 159	% x3 = 0.45
3						FACU species 309	
4. 5.				·		UPL species Column Totals: 1.2	x5 = (B)
6.				· ———		1.2	<u> </u>
7.						Prevalence Index	= B/A = 2.00
8							
9. 10.						Hydrophytic Vegetation I	Indicators
11.						nydrophytic vegetation i	nuicators.
12.						1-Rapid Test for H	Hydrophytic Vegetation
13.						X 2-Dominance Tes	
14.				· ——		X 3-Prevalence Inde	
15. 16.							Adaptations ¹ (Provide supporting or on a separate sheet)
				. ———			rophytic Vegetation ¹ (Explain)
18.						_	
						¹ Indicators of hydric soil an	·
20			700/	T-4-10		be present, unless disturbe	ed or problematic.
				= Total Cover			
Woody Vine Stratur	m (Plot size: 30' ra	dius)				Hydrophytic Vegetation	
2.	<u>-</u>					Present? Ye	es X No
				= Total Cover			
Remarks: (Include	photo numbers here or	r on a senarate she	≏t)				
	F2.0 110110 01	a separate site	,				

SOIL Sampling Point: WL-009-WET

epth	ription: (Describe to Matrix		Re	edox Features				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5Y 6/1	85	2.5YR 4/8	15	С	М	Loam clay	
							<u> </u>	
ype: C=C	oncentration, D=Deple	etion, RM=Redu	uced Matrix, CS=Cover	ed or Coated S	Sand Grains.	² Locat	on: PL=Pore	Lining, M=Matrix.
dric Soil I	ndicators:							olematic Hydric Soils ³ :
_ Histoso	ol (A1)		Sandy Gley	ed Matrix (S4))		Coast	Prairie Redox (A16)
Histic E	Epipedon (A2)		Sandy Red	ox (S5)			Iron-N	langanese Masses (F12)
Black F	Histic (A3)		Stripped M	atrix (S6)			Dark S	Surface (S7)
Hydrog	en Sulfide (A4)		Loamy Mud	cky Mineral (F1	1)		Very S	Shallow Dark Surface (TF12)
Stratifie	ed Layers (A5)		Loamy Gle	yed Matrix (F2	2)		Other	(Explain in Remarks)
2 cm M	luck (A10)		X Depleted M					
Deplete	ed Below Dark Surface	e (A11)	Redox Darl	k Surface (F6)				
Thick D	Dark Surface (A12)		Depleted D	ark Surface (F	7)		³ Indicators of	of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Redox Dep	ressions (F8)			wetland	hydrology must be present,
5 cm M	lucky Peat or Peat (S3)	_ 					disturbed or problematic.
strictive L	ayer (if observed):							
Type:								
_								Yes X No
Depth (i	inches):					Hydric	Soil Present?	Yes <u>X</u> No
Depth (i	OGY					Hydric	Soil Present?	TesXNU
Depth (i marks: YDROL etland Hyc	OGY drology Indicators:	o io poquirade al	pools all that apply)			Hydric		
Depth (i marks: YDROL etland Hydrimary Indid	OGY drology Indicators: cators (minimum of on	e is required: cl		and Lanuar (D		Hydric	Secon	dary Indicators (minimum of two required)
Depth (i marks: YDROL etland Hyc imary Indic Surface	OGY drology Indicators: cators (minimum of on e Water (A1)	e is required: cl	Water-Stail	ned Leaves (B	9)	Hydric	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6)
Depth (i marks: YDROLO etland Hyd rimary Indio C Surface C High W	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2)	e is required: cl	Water-Stair Aquatic Far	una (B13)		Hydric	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
Depth (i marks: YDROLO etland Hyd imary Indio C Surface C High W C Saturat	OGY drology Indicators: cators (minimum of on e Water (A1) //ater Table (A2) tion (A3)	e is required: cl	Water-Stain Aquatic Far	una (B13) ic Plants (B14)	Hydric	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (i marks: YDROLO etland Hyc rimary Indic X Surface X High W X Saturat Water I	OGY drology Indicators: cators (minimum of on e Water (A1) /ater Table (A2) cition (A3) Marks (B1)	e is required: cl	Water-Stain Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor (C) C1)		Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (i	OGY drology Indicators: cators (minimum of on e Water (A1) /ater Table (A2) citon (A3) Marks (B1) ent Deposits (B2)	e is required: cl	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o) C1) n Living Root		Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Depth (i marks: YDROLO etland Hyc rimary Indio X Surface X High W X Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of on e Water (A1) /ater Table (A2) cition (A3) Marks (B1) ent Deposits (B2) eposits (B3)	e is required: cl	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres of of Reduced Iron) C1) n Living Root n (C4)	s (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
POPPOLO POP	OGY drology Indicators: cators (minimum of on e Water (A1) /ater Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	e is required: cl	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres of Reduced Iron Reduction in) C1) n Living Root n (C4)	s (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
POPPOLO POP	OGY drology Indicators: cators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5)		Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres or of Reduced Iron n Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
PDEPTH (in marks: YDROL (in marks: YDROL (in mary India) X Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat	OGY drology Indicators: cators (minimum of one water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) tion Visible on Aerial In	magery (B7)	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9)) C1) n Living Root n (C4) Tilled Soils (G	s (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
PDEPTH (in marks: PDEPTH (in marks: PDEPTH (in marks: PUBLIC Estland Hydromary India Surface Water If Sedime Drift Dee Algal M Iron Dee Inundati	OGY drology Indicators: cators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5)	magery (B7)	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres or of Reduced Iron n Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (G	s (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Project/Site:	Willowbrook Solar Far	m		City/County:	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Renewab	les				State: OH	Sampling Point: WL-010-UPL
Investigator(s):	BJS & MM			Sect	ion, Townshi	p, Range:	
Landform (hillslope,	, terrace, etc.): none				Local r	elief (concave, convex, none):	None
Slope (%):	0% Lat:	39.055774		Long:		-83.69349	Datum: WGS84
Soil Map Unit Name	e: AtB2					NWI classit	ication: None
Are climatic / hydrol	logic conditions on the s	site typical for this time o	of year?	Yes	X No	(If no, explain in Remarks	3.)
Are Vegetation	No , Soil No	, or Hydrology No	significantly d	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No	, or Hydrology No	naturally prob	lematic?	(If need	led, explain any answers in Rer	narks.)
SUMMARY OF	FINDINGS Attac	ch site map showi	ng sampling	point loca	tions, trar	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes	No X	Is the	Sampled Are	ea	
Hydric Soil Present	?	Yes	No X	within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No X				
Remarks:							
VECETATION	Llee ecientific no	man of plants					
VEGETATION -	Use scientific na	arries or plants.	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test worksheet	:
1.		—′					
2.						Number of Dominant Species	;
3						That Are OBL, FACW, or FAC	C:(A)
4							
5			-	= Total Cover		Total Number of Dominant Species Across All Strata:	1 (B)
				- Total Cover		Species Across Air Strata.	(В)
Sapling/Shrub Strat	tum (Plot size: 15' rad	dius)				Percent of Dominant Species	
1			<u> </u>			That Are OBL, FACW, or FAC	C:(A/B)
2							
3							
4 5.						Prevalence Index workshee	:
J			-	= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)	-			OBL species	x1 =
1. Glycine max			60%	Yes	UPL	FACW species	x2 =
2. Allium canaden	ise		5%	No	FACU	FAC species	x3 =
3						FACU species 5%	x4 = 0.2
4. 5.						UPL species 60% Column Totals: 0.65	x5 = 3 (B)
6.						Column Totals. 0.03	(A)(D)
7.						Prevalence Index = I	B/A = 4.92
8.							
9							
10						Hydrophytic Vegetation Ind	icators:
11. 12.						1-Rapid Test for Hyd	rophytic Vegetation
13.			_			2-Dominance Test is	
14.						3-Prevalence Index	
15.						4-Morphological Ada	ptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydrop	hytic Vegetation¹ (Explain)
18						¹ Indicators of hydric soil and v	votland hydrology must
19. 20.			 ·			be present, unless disturbed	
			65%	= Total Cover		be present, unless distarbed	or problematio.
Woody Vine Stratur	m (Plot size: 30' rad	dius)				Hydrophytic	
1						Vegetation	N V
2				= Total Cover		Present? Yes	No_X
				- rotal Covel			
Remarks: (Include	photo numbers here or	on a separate sheet.)				1	

SOIL Sampling Point: WL-010-UPL

_	Matrix					-					
ches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Rema	arks	
0-6	2.5Y 6/3	100					Loam clay				
6-12	2.5Y 6/4	85	2.5Y 6/8	5			Loam clay				
6-12	2.5Y 6/2	10									
be. C=Co	ncentration D=Deple	tion RM=Red	uced Matrix, CS=Cove	red or Coated S	and Grains	² Location	on: PL=Pore	ining M=	=Matrix		
	dicators:	,		04 0. 004.04 0					Hydric Soils ³ :		
Histosol			Sandy Gle	yed Matrix (S4)					edox (A16)		
•	pipedon (A2)		Sandy Red	. , ,					e Masses (F12	2)	
Black His			Stripped M				Dark S	Surface (S	7)	•	
Hydroge	n Sulfide (A4)		Loamy Mu	cky Mineral (F1))		Very S	hallow Da	ark Surface (TI	F12)	
Stratified	Layers (A5)		Loamy Gle	yed Matrix (F2)			Other	(Explain i	in Remarks)		
2 cm Mu	ck (A10)		Depleted N	Matrix (F3)							
Depleted	d Below Dark Surface	(A11)	Redox Dar	k Surface (F6)							
•	ark Surface (A12)		Depleted D	ark Surface (F7	7)				nytic vegetation		
_	lucky Mineral (S1)		Redox Dep	ressions (F8)			wetland	nydrology	must be prese	ent,	
5 cm Mu	cky Peat or Peat (S3)						unless	disturbed	or problemati	C.	
trictive La	yer (if observed):										
Type:											
Type.											
Depth (in	ches):		-			Hydric	Soil Present?		Yes	No_	
Depth (in			-			Hydric	Soil Present?		Yes	No_	X
Depth (in narks:			-			Hydric	Soil Present?		Yes	No_	X
Depth (in narks:	OGY	is required: c	- - - - - - - - - - - - - - - - - - -			Hydric			Yes		quired
Depth (in narks:	DGY ology Indicators:	is required: c		ned Leaves (B9))	Hydric	Secon	dary Indic		m of two re	
Depth (in narks: DROLO tland Hydrmary Indica Surface Surface	OGY ology Indicators: ators (minimum of one	is required: c))	Hydric	Secon	dary Indic Surface S	ators (minimu	m of two re	
DROLO tland Hydr mary Indica Surface	ology Indicators: ators (minimum of one Water (A1) ter Table (A2)	is required: c	Water-Stai Aquatic Fa			Hydric	Secon	dary Indic Surface S Drainage	ators (minimu	m of two re	
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Depth (in narks: DROLO tland Hydr mary Indica Surface High Wa Saturatic Water M	ology Indicators: ators (minimum of one Water (A1) tter Table (A2) on (A3)	is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen S	una (B13) tic Plants (B14)	1)		Secon	dary Indic Surface S Drainage I Dry-Seasc Crayfish B	ators (minimu oil Cracks (B6 Patterns (B10) on Water Table	m of two re)) e (C2)	quired
Depth (in narks: DROLO tland Hydr mary Indica Surface High Wa Saturatic Water M Sedimen	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1)	is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen 9 Oxidized R	una (B13) tic Plants (B14) Sulfide Odor (C1	1) Living Root		Secon	dary Indic Surface S Drainage I Dry-Seasc Crayfish B Saturation	ators (minimur oil Cracks (B6 Patterns (B10) on Water Table Burrows (C8)	m of two re)) e (C2) rial Imager	quired
DROLO tland Hydr mary Indica Surface High Wa Saturatic Water M Sedimen Drift Dep	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Irol	una (B13) tic Plants (B14) Sulfide Odor (C1 hizospheres on of Reduced Iron on Reduction in T	1) Living Root (C4)	s (C3)	Secon	dary Indic Surface S Drainage Dry-Seasc Crayfish B Saturation Stunted or Geomorph	eators (minimul oil Cracks (B6 Patterns (B10) on Water Table Burrows (C8) I Visible on Ae r Stressed Plan nic Position (D	m of two re)) e (C2) rial Imager	quired
DROLO Cland Hydr mary Indica Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	ology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) ators (B3) at or Crust (B4) osits (B5)		Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	una (B13) tic Plants (B14) Sulfide Odor (C1 hizospheres on of Reduced Iron n Reduction in T Surface (C7)	1) Living Root (C4)	s (C3)	Secon	dary Indic Surface S Drainage Dry-Seasc Crayfish B Saturation Stunted or Geomorph	eators (minimul oil Cracks (B6 Patterns (B10) on Water Table Burrows (C8) I Visible on Ae r Stressed Pla	m of two re)) e (C2) rial Imager	quired
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Depth (in narks: DROLO tland Hydr mary Indica Surface High Wa Saturatic Water M Sedimen Drift Dep Inundatic Sparsely Id Observarface Wate ater Table Furation Precludes capi	ology Indicators: ators (minimum of one Water (A1) tter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) on Visible on Aerial Im v Vegetated Concave services ations: r Present? Present? llary fringe)	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C2 hitzospheres on of Reduced Iron of Reduction in T Surface (C7) Vell Data (D9) lain in Remarks es): N/A es): N/A	1) Living Root (C4) Filled Soils (G	s (C3) C6)	Secon	dary Indic Surface S Drainage Dry-Seasc Crayfish B Saturation Stunted or Geomorph	eators (minimul oil Cracks (B6 Patterns (B10) on Water Table Burrows (C8) I Visible on Ae r Stressed Plan nic Position (D ral Test (D5)	m of two re) in the (C2) rial Imager ints (D1) 2)	quired
Depth (in Depth	ology Indicators: ators (minimum of one Water (A1) tter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) on Visible on Aerial Im v Vegetated Concave services ations: r Present? Present? llary fringe)	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C2 hitzospheres on of Reduced Iron of Reduction in T Surface (C7) Vell Data (D9) lain in Remarks es): N/A es): N/A	1) Living Root (C4) Filled Soils (G	s (C3) C6)	Secon	dary Indic Surface S Drainage Dry-Seasc Crayfish B Saturation Stunted or Geomorph	eators (minimul oil Cracks (B6 Patterns (B10) on Water Table Burrows (C8) I Visible on Ae r Stressed Plan nic Position (D ral Test (D5)	m of two re) in the (C2) rial Imager ints (D1) 2)	quired
Depth (in narks: Surface 'Algal Ma Iron Depth (in nadation and in narks) It of the parks of the	ology Indicators: ators (minimum of one Water (A1) ther Table (A2) on (A3) arks (B1) int Deposits (B2) posits (B3) int or Crust (B4) osits (B5) on Visible on Aerial Im Vegetated Concave ations: r Present? esent? ellary fringe) orded Data (stream ga	yes No Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C1 hizospheres on of Reduced Iron n Reduction in T Surface (C7) Vell Data (D9) lain in Remarks es): N/A es): N/A previous inspect	1) Living Root (C4) Filled Soils (G	s (C3) C6)	Secon	dary Indic Surface S Drainage Dry-Seasc Crayfish B Saturation Stunted or Geomorph	eators (minimul oil Cracks (B6 Patterns (B10) on Water Table Burrows (C8) I Visible on Ae r Stressed Plan nic Position (D ral Test (D5)	m of two re) in the (C2) rial Imager ints (D1) 2)	quired

Project/Site:	Willowbrook Solar	r Farm		City/County:	Preble	Sampl	ling Date: 11/6/2017
Applicant/Owner:	Open Road Rene	wables				State: OH Sampli	ing Point: WL-010-WET
Investigator(s):	BJS & MM			Sect	ion, Townsh	iip, Range:	
Landform (hillslope,	, terrace, etc.): <u>no</u>	one			Local	relief (concave, convex, none): Concav	е
Slope (%):	1% Lat:	39.05582	29	Long:		-83.693502 Dat	um: WGS84
Soil Map Unit Name	e: AtB2					NWI classification:	None
Are climatic / hydrol	logic conditions on t	the site typical for this tir	ne of year?	Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	No , Soil	No , or Hydrology	No significantly d	listurbed?			es X No
Are Vegetation	<u>No</u> , Soil	No , or Hydrology	No naturally prob	lematic?	(If nee	ded, explain any answers in Remarks.)	
SUMMARY OF	FINDINGS A	ttach site map sho	owing sampling	g point loca	tions, tra	nsects, important features, et	c.
Hydrophytic Vegeta Hydric Soil Present' Wetland Hydrology Remarks:	?	Yes X Yes X Yes X	No No No		Sampled Ar a Wetland?		No
VEGETATION -	Use scientific	c names of plants.		Danis	lo di satar		
Tree Stratum (Plot	size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	00 144.40	·	<u> </u>	<u> </u>	- Claraco		
2.						Number of Dominant Species	
3						That Are OBL, FACW, or FAC:	(A)
4						Total Number of Dominant	
0				= Total Cover		Species Across All Strata:	2 (B)
							,
	tum (Plot size: 15	5' radius)				Percent of Dominant Species	
0						That Are OBL, FACW, or FAC:	100% (A/B)
						Prevalence Index worksheet:	
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot)	70%	Yes	FACW	· —	1 = <u>0.2</u> 2 = 1.4
Spartina Pectin Juncus effusus			20%	Yes	OBL		3 =
3.						· —	4 =
4.						· —	5 =
5						Column Totals: 0.90 (A)	1.6 (B)
6. 7.						Prevalence Index = B/A =	1.78
8.							1.70
9.							
10						Hydrophytic Vegetation Indicators	:
11. 12.						V 1 Danid Teet for Hydrophytic	a Vagatatian
13.						X 1-Rapid Test for Hydrophytic X 2-Dominance Test is >50%	vegetation
14.						X 3-Prevalence Index is ≤3.0 ¹	
15.						4-Morphological Adaptations	
16.						data in Remarks or on a se	
17. 18.						Problematic Hydrophytic Ve	getation (Explain)
10						¹ Indicators of hydric soil and wetland	hydrology must
20.						be present, unless disturbed or probl	
			90%	= Total Cover			
Woody Vine Stratur 1. 2.		0' radius)				Hydrophytic Vegetation Present? Yes X	No
				= Total Cover			
Banasi C. I.	aboto to the		4.				
Remarks: (Include	pnoto numbers her	e or on a separate shee	et.)				

SOIL Sampling Point: WL-010-WET

nches) Color (moist) 9		%	Type ¹	Loc ²	Texture	Remarks
0.40	Color (moist)					Remarks
0-12 2.5Y 7/2 9	0 7.5Y 6/8	10	C	М	Loam clay	
				2		
ype: C=Concentration, D=Depletion, R dric Soil Indicators:	M=Reduced Matrix, CS=Cov	vered or Coated	Sand Grains.			Lining, M=Matrix. blematic Hydric Soils³:
Histosol (A1)	Sandy G	leyed Matrix (S4)	man		t Prairie Redox (A16)
Histic Epipedon (A2)		edox (S5)	,			Manganese Masses (F12)
Black Histic (A3)		Matrix (S6)				Surface (S7)
Hydrogen Sulfide (A4)		lucky Mineral (F	1)			Shallow Dark Surface (TF12)
Stratified Layers (A5)		Gleyed Matrix (F2	•			(Explain in Remarks)
2 cm Muck (A10)	X Depleted	•	•			,
Depleted Below Dark Surface (A11)		ark Surface (F6)				
Thick Dark Surface (A12)	Depleted	l Dark Surface (F	- 7)		³ Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		epressions (F8)	•			hydrology must be present,
5 cm Mucky Peat or Peat (S3)		(-7				disturbed or problematic.
estrictive Layer (if observed):						
Type:						
Depth (inches):				Hydric	Soil Present	? Yes X No
marks:						
YDROLOGY						
YDROLOGY etland Hydrology Indicators:	uired: check all that apply)				Secon	ndary Indicators (minimum of two required)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req		tained Leaves (R	(9)			ndary Indicators (minimum of two required)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req K Surface Water (A1)	Water-S	tained Leaves (B	39)			Surface Soil Cracks (B6)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is requested Surface Water (A1) K High Water Table (A2)	Water-S Aquatic	Fauna (B13)	,		X	Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-S Aquatic I True Aqu	Fauna (B13) uatic Plants (B14	, .)		X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	Water-S' Aquatic I True Aqu Hydroge	Fauna (B13) uatic Plants (B14 n Sulfide Odor (0) C1)	s (C3)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-S: Aquatic I True Aqu Hydroge Oxidized	Fauna (B13) uatic Plants (B14 n Sulfide Odor (0 l Rhizospheres o	.) C1) n Living Root	s (C3)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X	Water-S Aquatic I True Aqu Hydroge Oxidized Presence	Fauna (B13) uatic Plants (B14 n Sulfide Odor (0 Rhizospheres o e of Reduced Iro	.) C1) n Living Root n (C4)	, ,	<u>x</u>	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Si Aquatic I True Aqu Hydroge Oxidized Presenct Recent I	Fauna (B13) uatic Plants (B14 n Sulfide Odor (0 Rhizospheres o e of Reduced Iro ron Reduction in	.) C1) n Living Root n (C4)	, ,	<u>x</u> x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X	Water-S Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Mue	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7)	.) C1) n Living Root n (C4) Tilled Soils (0	, ,	<u>x</u> x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Mue (B7) Gauge o	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7) r Well Data (D9)	c) C1) n Living Root n (C4) Tilled Soils (G	, ,	<u>x</u> x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Mue (B7) Gauge o	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7)	c) C1) n Living Root n (C4) Tilled Soils (G	, ,	<u>x</u> x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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etland Hydrology Indicators: rimary Indicators (minimum of one is req X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface eld Observations: urface Water Present? Yes	Water-Si	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7) r Well Data (D9) xplain in Remark	c) C1) n Living Root n (C4) Tilled Soils (G	, ,	<u>x</u> x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X	Water-Si	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7) r Well Data (D9) xplain in Remark thes): 2	c) C1) n Living Root n (C4) Tilled Soils (G	C6)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
POROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X	Water-Si	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7) r Well Data (D9) xplain in Remark thes): 2	c) C1) n Living Root n (C4) Tilled Soils (G	C6)	<u>x</u> x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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POROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is req X	Water-S	Fauna (B13) uatic Plants (B14 n Sulfide Odor (C) Rhizospheres o e of Reduced Iro ron Reduction in ck Surface (C7) r Well Data (D9) xplain in Remark thes): 3 thes): 2 thes): 0	C1) C1) n Living Root n (C4) Tilled Soils (C	C6)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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Project/Site:	Willowbrook Solar Farn	n		City/County:	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Renewable	es				State: OH	Sampling Point: WL-011-UPL
Investigator(s):	BJS & MM			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): none				Local	relief (concave, convex, none):	Convex
Slope (%):	0% Lat:	39.04921	3	Long:		-83.704371	Datum: WGS84
Soil Map Unit Name	e: <u>Gn</u>					NWI class	ification: None
Are climatic / hydrol	logic conditions on the si	te typical for this tim	ne of year?	Yes	X No	(If no, explain in Remark	s.)
Are Vegetation	No , Soil No	_, or Hydrology	No significantly d	isturbed?	Are "N	ormal Circumstances" present?	Yes <u>X</u> No
Are Vegetation	No , Soil No	, or Hydrology	No naturally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attac	h site map sho	wing sampling	point loca	tions, tra	nsects, important featu	res, etc.
Hydrophytic Vegeta	ation Present?	Yes	No X	Is the	Sampled Ar	ea	
Hydric Soil Present	?	Yes	No X	within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No X				
Remarks:							
VEOFTATION	11						
VEGETATION -	Use scientific na	mes of plants.	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	ıt:
1.		_′					-
2.						Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	C: 0 (A)
4						T	
5				= Total Cover		Total Number of Dominant Species Across All Strata:	1 (B)
				- Total Cover		Species Across Air Strata.	(В)
Sapling/Shrub Strat	tum (Plot size: 15' rad	ius)				Percent of Dominant Species	S
1						That Are OBL, FACW, or FA	.C:(A/B)
						Daniel and the design of the last	4.
4. 5.						Prevalence Index workshee	AT:
J				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)				OBL species	x1 =
1. Glycine max			60%	Yes	UPL	FACW species	x2 =
2. Allium canaden	nse		5%	No	FACU	FAC species	x3 =
3.						FACU species 5%	x4 = 0.2 x5 = 3
4. 5.						UPL species 60% Column Totals: 0.65	x5 = 3 (A) 3.2 (B)
6.							(',')(5)
7.						Prevalence Index =	B/A = 4.92
8							
9.							
10. 11.						Hydrophytic Vegetation Inc	licators:
12.						1-Rapid Test for Hy	drophytic Vegetation
13.						2-Dominance Test i	
14.						3-Prevalence Index	is ≤3.0 ¹
15.							aptations ¹ (Provide supporting
16.							on a separate sheet)
17. 18.						Problematic Hydrop	ohytic Vegetation ¹ (Explain)
10						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	
-			65%	Total Cover			
Woody Vine Stratur	- · <u></u>	us)				Hydrophytic	
1			<u> </u>			Vegetation Present? Yes	No X
				= Total Cover			
Remarks: (Include	photo numbers here or o	on a separate shee	t.)				

SOIL Sampling Point: WL-011-UPL

ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A6) 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or lestrictive Layer (if obsemble) Type: Depth (inches): Demarks:	7 6/3 100 7 6/4 95 1, D=Depletion, RM=Reduce 2) 1, D=Depletion, RM=Reduce 3) 1, D=Depletion, RM=Reduce 4) 1, D=Deple	ed Matrix, CS=Covered of Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matrix Redox Dark Stripped Depleted Dark Redox Depress	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	ns. ² Location:	Dark Surface (Very Shallow I Other (Explain Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
ype: C=Concentration dric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A6 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or strictive Layer (if obs Type: Depth (inches):	7 6/4 95 1, D=Depletion, RM=Reduce 2) 144) 150 150 151 152 153 154 157 158 159 159 159 159 159 159 159	ed Matrix, CS=Covered of Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Su Depleted Dark	Matrix (S4) (S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	ns. ² Location: Indicator	PL=Pore Lining, N rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
rpe: C=Concentration Iric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A6 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs Type: Depth (inches):	n, D=Depletion, RM=Reduce 2) (A4) 5) rk Surface (A11) (A12) ral (S1) Peat (S3)	ed Matrix, CS=Covered of Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Su Depleted Dark	Matrix (S4) (S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	ns. ² Location: Indicator	PL=Pore Lining, N rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explain Indicators of hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
ric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if observation) Depth (inches): arks:	2) x4) 5) rk Surface (A11) (A12) ral (S1) r Peat (S3)	Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	Indicato	rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
ic Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or rictive Layer (if obsemble) Type: Depth (inches):	2) x4) 5) rk Surface (A11) (A12) ral (S1) r Peat (S3)	Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	Indicato	rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
ic Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or rictive Layer (if obsemble) Type: Depth (inches):	2) x4) 5) rk Surface (A11) (A12) ral (S1) r Peat (S3)	Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	Indicato	rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
ric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or rictive Layer (if obsemble) Type: Depth (inches):	2) x4) 5) rk Surface (A11) (A12) ral (S1) r Peat (S3)	Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	Indicato	rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or rictive Layer (if obsemble) Depth (inches):	2) x4) 5) rk Surface (A11) (A12) ral (S1) r Peat (S3)	Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	Indicato	rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
ric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or rictive Layer (if observation) Depth (inches): arks:	2) x4) 5) rk Surface (A11) (A12) ral (S1) r Peat (S3)	Sandy Gleyed Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	Matrix (S4) S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	Indicato	rs for Problematic Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	c Hydric Soils ³ : Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) ohytic vegetation and gy must be present, ed or problematic.
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if observation) Depth (inches):	rk Surface (A11) (A12) ral (S1) • Peat (S3)	Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark	(S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)	3	Coast Prairie Iron-Mangane Dark Surface (Very Shallow I Other (Explair Indicators of hydrol wetland hydrolog unless disturbe	Redox (A16) see Masses (F12) (S7) Dark Surface (TF12) in in Remarks) Onlytic vegetation and gy must be present, and or problematic.
Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches):	rk Surface (A11) (A12) ral (S1) • Peat (S3)	Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark	(S5) ((S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)		Iron-Mangane Dark Surface (Very Shallow I Other (Explain Indicators of hydrol wetland hydrolog unless disturbe	ese Masses (F12) (S7) Dark Surface (TF12) In in Remarks) Onlytic vegetation and gy must be present, and or problematic.
Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches): arks:	rk Surface (A11) (A12) ral (S1) • Peat (S3)	Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Su Depleted Dark	x (S6) Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)		Dark Surface (Very Shallow I Other (Explain Indicators of hydrol wetland hydrolog unless disturbe	Dark Surface (TF12) In in Remarks) Solvytic vegetation and gy must be present, and or problematic.
Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obstype: Depth (inches): DROLOGY	rk Surface (A11) (A12) ral (S1) Peat (S3)	Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Su Depleted Dark	Mineral (F1) Matrix (F2) x (F3) urface (F6) Surface (F7)		Very Shallow I Other (Explain Indicators of hydrol wetland hydrolog unless disturbe	Dark Surface (TF12) In in Remarks) Onlytic vegetation and grown must be present, and or problematic.
Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches): DROLOGY	rk Surface (A11) (A12) ral (S1) Peat (S3)	Loamy Gleyed Depleted Matri Redox Dark Su Depleted Dark	Matrix (F2) x (F3) urface (F6) Surface (F7)		Other (Explain Indicators of hydrol wetland hydrolog unless disturbe	on in Remarks) Onlytic vegetation and growing must be present, ged or problematic.
2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches): arks:	rk Surface (A11) (A12) ral (S1) Peat (S3)	Depleted Matri Redox Dark Su Depleted Dark	x (F3) urface (F6) Surface (F7)		Indicators of hydro wetland hydrolog unless disturbe	ohytic vegetation and gy must be present, ed or problematic.
Depleted Below Dar Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches): arks:	(A12) ral (S1) Peat (S3)	Redox Dark Su Depleted Dark	urface (F6) Surface (F7)		wetland hydrolog unless disturbe	gy must be present, ed or problematic.
Thick Dark Surface Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches): arks:	(A12) ral (S1) Peat (S3)	Depleted Dark	Surface (F7)		wetland hydrolog unless disturbe	gy must be present, ed or problematic.
Sandy Mucky Miner 5 cm Mucky Peat or trictive Layer (if obset) Type: Depth (inches): arks:	ral (S1) Peat (S3)		, ,		wetland hydrolog unless disturbe	gy must be present, ed or problematic.
5 cm Mucky Peat or trictive Layer (if obs. Type: Depth (inches): arks:	Peat (S3)			Hydric Soi	unless disturbe	ed or problematic.
Type: Depth (inches): arks: DROLOGY	erved):			Hydric Soi	il Present?	
Type: Depth (inches): arks: DROLOGY				Hydric Soi	il Present?	
Depth (inches):arks:				Hydric Soi	il Present?	
arks: DROLOGY				, , , , , ,		Yes No X
tland Hydrology India	cators: num of one is required: che	ck all that apply)			Secondary Ind	licators (minimum of two required
Surface Water (A1)		Water-Stained	Leaves (R9)			Soil Cracks (B6)
High Water Table (A		Aquatic Fauna				e Patterns (B10)
Saturation (A3)	<i>(</i> 2)	True Aquatic P	` '			son Water Table (C2)
Water Marks (B1)		Hydrogen Sulfi				Burrows (C8)
Sediment Deposits	(B2)		spheres on Living R	oots (C3)		on Visible on Aerial Imagery (C9)
Drift Deposits (B3)	,	Presence of Ro	educed Iron (C4)	,		or Stressed Plants (D1)
Algal Mat or Crust (I	B4)		eduction in Tilled Soi	ls (C6)	Geomor	phic Position (D2)
Iron Deposits (B5)		Thin Muck Sur	face (C7)		FAC-Ne	utral Test (D5)
Inundation Visible o	n Aerial Imagery (B7)	Gauge or Well	Data (D9)			
Sparsely Vegetated	Concave Surface (B8)	Other (Explain	in Remarks)			
d Observations:						
rface Water Present?	Yes No 2	X Depth (inches):	N/A			
iter Table Present?	Yes No 2	X Depth (inches):	N/A			
uration Present?	— —	X Depth (inches):	N/A Wetl	and Hydrology F	Present?	Yes NoX
ludes capillary fringe)	Yes No _ :					
nudes capillary iringe)						
		well, aerial photos, prev	rious inspections), if	available:		
		well, aerial photos, prev	rious inspections), if	available:		
		well, aerial photos, prev	ious inspections), if	available:		

Project/Site:	Willowbrook Solar Farm	ı		City/County:	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Renewable	es .				State: OH	Sampling Point: WL-011-WET
Investigator(s):	BJS & MM			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): none				Local	relief (concave, convex, none):	Concave
Slope (%):	1% Lat:	39.049204	ļ	Long:		-83.704154	Datum: WGS84
Soil Map Unit Name	e: Gn					NWI classif	ication: None
Are climatic / hydro	logic conditions on the sit	e typical for this time	e of year?	Yes_	X No	(If no, explain in Remarks	
Are Vegetation	No , Soil No	, or Hydrology	No significantly d	isturbed?	Are "N	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No				,	ded, explain any answers in Ren	,
SUMMARY OF	FINDINGS Attacl	n site map show	ving sampling	point loca	tions, tra	nsects, important featur	es, etc.
Hydrophytic Vegeta Hydric Soil Present Wetland Hydrology Remarks:	?	Yes X Yes X Yes X	No No		Sampled Ar a Wetland?		No
	Use scientific nai	mes of plants.	Absolute	Dominant	Indicator		
Tree Stratum (Plot		_)	% Cover	Species?	Status	Dominance Test worksheet	:
						Number of Dominant Species	
						That Are OBL, FACW, or FAC	
							, ,
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	1 (B)
1	tum (Plot size: 15' radi	 ;				Percent of Dominant Species That Are OBL, FACW, or FAC	
3. 4.						Prevalence Index worksheet	:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	t size: 5' radius)		- Total Govel		OBL species 70%	x1 = 0.7
Typha angustif	folia	=-	70%	Yes	OBL	FACW species 5%	x2 = 0.1
2. Spartina pectin			5%	No	FACW	FAC species 5%	x3 = 0.15
3. Hordeum jubat	tum		5%	No	FAC	FACU species	x4 =
4. 5.						UPL species Column Totals: 0.80	x5 =(A) 0.95 (B)
6.						Column Totals. 0.00	(A)(B)
7. 8.						Prevalence Index = E	B/A =
9. 10.						Hydrophytic Vegetation Ind	icators:
11. 12.						X 1-Rapid Test for Hyd	rankutia Vagatatian
13.						X 2-Dominance Test is	
14.						X 3-Prevalence Index i	
15.						4-Morphological Ada	ptations ¹ (Provide supporting
16							on a separate sheet)
17.						Problematic Hydropl	hytic Vegetation ¹ (Explain)
18 19.						¹ Indicators of hydric soil and w	vetland hydrology must
20.						be present, unless disturbed of	
			80%	= Total Cover		,	'
Woody Vine Stratu	m (Plot size: 30' radi	us)				Hydrophytic Vegetation	
2				= Total Cover		Present? Yes_	X No
			-				
Remarks: (Include	photo numbers here or c	n a separate sheet.)				

SOIL Sampling Point: WL-011-WET

epth	Matrix Color (moist)	%	Color (majet)	%	Type ¹	Loc ²	Texture	Remarks
nches)	Color (moist)		Color (moist)					Remarks
0-12	2.5Y 6/1	90	2.5Y 6/8	_ 5	C	M	Clay	
			5YR 5/8	5	C	M		
				_				
				_				
				_				
pe: C=C	oncentration, D=Deplet	tion, RM=Redu	ced Matrix, CS=Cover	ed or Coated	Sand Grains	² Locatio	on: PL=Pore Li	ning, M=Matrix.
ric Soil I	ndicators:					Indica	ators for Proble	ematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy Gley	ed Matrix (S4)		Coast F	Prairie Redox (A16)
Histic E	Epipedon (A2)		Sandy Red	ox (S5)			Iron-Ma	nganese Masses (F12)
Black H	listic (A3)		Stripped Ma	atrix (S6)				rface (S7)
	en Sulfide (A4)			ky Mineral (F	•			allow Dark Surface (TF12)
_	ed Layers (A5)			ed Matrix (F2	2)		Other (E	Explain in Remarks)
_	luck (A10)		X Depleted M	, ,				
-	ed Below Dark Surface	(A11)		Surface (F6)			2	
_	Park Surface (A12)			ark Surface (F	7)			hydrophytic vegetation and
_	Mucky Mineral (S1)		Redox Dep	ressions (F8)				drology must be present,
_ 5 cm N	lucky Peat or Peat (S3)						unless d	isturbed or problematic.
trictive L	ayer (if observed):							
Type:								
- '	nches):					Hydric	Soil Present?	Yes <u>X</u> No
arks:						Hydric	Soil Present?	Yes X No
narks:						Hydric	Soil Present?	Yes X No
DROL	OGY	is required: ch	eck all that apply)			Hydric		Yes X No
DROL tland Hyo	OGY Irology Indicators:	is required: ch	,	ned Leaves (E	99)	Hydric	Seconda	
DROL tland Hyo mary India _ Surface	OGY Irology Indicators: cators (minimum of one	is required: ch	,	,	39)	Hydric	Seconda Su	ary Indicators (minimum of two required)
DROL tland Hyd mary India Surface High W Satural	OGY Irology Indicators: cators (minimum of one water (A1) rater Table (A2) ion (A3)	is required: ch	Water-Stair Aquatic Fau	,	,	Hydric	Seconda Su X Dr	ary Indicators (minimum of two required) urface Soil Cracks (B6)
DROL tland Hyd mary India Surface High W Satural	OGY Irology Indicators: cators (minimum of one water (A1) rater Table (A2)	is required: ch	Water-Stair Aquatic Fau True Aquati	ına (B13)	· ·)	Hydric	Seconda Su Dr	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10)
DROL tland Hyo mary Indio Surface High W Satural Water I Sedime	OGY Irology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S	ina (B13) c Plants (B14) C1)	-	Seconda Su Dr Dr Cr	ary Indicators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) y-Season Water Table (C2)
DROL tland Hyo mary India Surface High W Saturat Water Sedime	OGY Irology Indicators: cators (minimum of one e Water (A1) rater Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt	una (B13) or Plants (B14 oulfide Odor (C nizospheres of f Reduced Iro	.) C1) n Living Roo n (C4)	ts (C3)	Seconda Su X Dr Dr Cr Sa	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
DROL tland Hyo mary Indio Surface High W Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one of Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron	una (B13) c Plants (B14 culfide Odor (Conizospheres of Reduced Iro Reduction in	.) C1) n Living Roo n (C4)	ts (C3)	Seconda Su X Dr Dr Cr Sa Stt X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyo mary Indio Surface High W Saturat Water I Sedime Drift De Algal M	OGY Irology Indicators: cators (minimum of one of Water (A1) Vater Table (A2) vion (A3) Marks (B1) vent Deposits (B2) veposits (B3) Vater Crust (B4) veposits (B5)		Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7)	.) C1) n Living Roo n (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
DROL tland Hyo mary Indio Surface High W Saturat Water I Sedime Drift De Algal M Iron De	ogy Irology Indicators: cators (minimum of one e Water (A1) Irater Table (A2) Iron (A3) Marks (B1) Iron Deposits (B2) Ironosits (B3) Ironosits (B4) Ironosits (B5) Ironovisible on Aerial Im	nagery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron Thin Muck S Gauge or W	una (B13) c Plants (B14 culfide Odor (Control of Reduced Iro Reduction in Surface (C7) /ell Data (D9)	.) C1) n Living Roo n (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyo mary Indio Surface High W Saturat Water I Sedime Drift De Algal M Iron De	OGY Irology Indicators: cators (minimum of one of Water (A1) Vater Table (A2) vion (A3) Marks (B1) vent Deposits (B2) veposits (B3) Vater Crust (B4) veposits (B5)	nagery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron Thin Muck S Gauge or W	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7)	.) C1) n Living Roo n (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyc mary India Surface High W Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse	ogy Inclogy Indicators: cators (minimum of one e Water (A1) later Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im	nagery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence o Recent Iron Thin Muck S Gauge or W	una (B13) c Plants (B14 culfide Odor (Control of Reduced Iro Reduction in Surface (C7) /ell Data (D9)	.) C1) n Living Roo n (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyc mary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse	ogy Inclogy Indicators: cators (minimum of one e Water (A1) later Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im	nagery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14 culfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark	.) C1) n Living Roo n (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyo mary Indio Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse	oGY Irology Indicators: cators (minimum of one of Water (A1) Irology Indicators: cators (minimum of one of Water (A1) Irology	nagery (B7) Surface (B8) Yes X No Yes X No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3	.) C1) n Living Roo n (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyo mary Indio Surface High W Satural Water I Sedime Drift De Algal M Iron De Inunda Sparse	oGY Irology Indicators: cators (minimum of one of water (A1) fater Table (A2) fion (A3) Marks (B1) fion Deposits (B2) fion Order (B4) fion Visible on Aerial Im fly Vegetated Concave (Size) for Present? Present?	nagery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rt Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 10	c1) C1) In Living Roo In (C4) Tilled Soils (ts (C3)	Seconda Su X Dr Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
DROL tland Hyo mary Indio Surface High W Saturat Water Sedime Drift De Inon De Inunda Sparse Id Observatater Table turation P	oGY Irology Indicators: cators (minimum of one of water (A1) fater Table (A2) fion (A3) Marks (B1) fion Deposits (B2) fion Order (B4) fion Visible on Aerial Im fly Vegetated Concave (Size) for Present? Present?	nagery (B7) Surface (B8) Yes X No Yes X No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 10	c1) C1) In Living Roo In (C4) Tilled Soils (ts (C3)	Seconda St X Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2) AC-Neutral Test (D5)
DROL tland Hyo mary Indio Surface High W Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse Id Observatater Table turation P	oGY Irology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) vion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave solutions: er Present? Present?	yes X No Yes X No Yes X No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 10 s): 0	C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3) C6)	Seconda St X Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2) AC-Neutral Test (D5)
marks: POROL Setland Hyd Surface High W Sedime Sedime Algal W Iron De Inunda Sparse Sparse Fid Observators Inface Watater Table atturation P cludes ca	oGY Irology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) vion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave solutions: vations: er Present? Present? resent? pillary fringe)	yes X No Yes X No Yes X No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 10 s): 0	C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3) C6)	Seconda St X Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2) AC-Neutral Test (D5)
TDROL tland Hyc mary Indic Surface High W Satural Water I Sedime Drift De Iron De Inunda Sparse Id Observ rface Watater Table turation P cludes ca	oGY Irology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) vion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave solutions: vations: er Present? Present? resent? pillary fringe)	yes X No Yes X No Yes X No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 10 s): 0	C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3) C6)	Seconda St X Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2) AC-Neutral Test (D5)
TOROL tland Hyo mary India Surface High W Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse Id Observatater Table turation Pecludes ca	oGY Irology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) vion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave solutions: vations: er Present? Present? resent? pillary fringe)	yes X No Yes X No Yes X No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Ri Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark s): 3 s): 10 s): 0	C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3) C6)	Seconda St X Dr Cr Sa St X Ge	ary Indicators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2) AC-Neutral Test (D5)

Investigator(s): BJS & MM	Project/Site:	Willowbrook Solar	Farm		City/County	: Preble		Sampling Date: <u>11/6/2017</u>
Lacet from (Pilot size. process process	Applicant/Owner:	Open Road Renev	wables				State: OH	Sampling Point: WL-012-UPL
Stope 16 10 10 10 10 10 10 10	Investigator(s):	BJS & MM			Sec	tion, Townsh	nip, Range:	
Sol Map Unit Name:	Landform (hillslope	, terrace, etc.): no	one			Local	relief (concave, convex, none):	Convex
Sol Map Unit Name:	Slope (%):	0% Lat:	39.0480)51	Long:		-83.708284	Datum: WGS84
An Vegetation No	Soil Map Unit Name	e: AtB2					NWI class	ification: None
No. Soil No. or Hydrodogy No. naturally problematic? (Theoded, explain any answers in Remarks.)	Are climatic / hydro	logic conditions on t	he site typical for this ti	me of year?	Yes	X No	(If no, explain in Remark	is.)
Summary OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.	Are Vegetation	No , Soil	No , or Hydrology	No significant	ly disturbed?	Are "N	ormal Circumstances" present?	Yes X No
Hydrophyto Vagetation Present?	Are Vegetation	No , Soil	No , or Hydrology	No naturally p	roblematic?	(If nee	ded, explain any answers in Re	marks.)
Hydrophyto Vagetation Present?		FINDINGS At	ttach site map sh	owing sampl	ing point loca	ations. tra	nsects, important featu	res. etc.
Westand Hybrids (Plesant? Yes No X							-	
Vester	, , ,							No X
VEGETATION Use scientific names of plants. Absolute Stratum (Plot size: 30 radius) % Cover Species? Status	Wetland Hydrology	Present?	Yes	No X	_			
VEGETATION Use scientific names of plants. Absolute Species 30' radius 00' w 50' cover 5 pecies 5 latus 00' cover 5 latus 00' cover 5 latus 00' cover 5 latus 00' cover	Remarks:		·					
Absolute Dominant Indicator Scaping Status Obminance Test worksheet:	Tromanie.							
Dominant Indicator Species 30' radius W. Cover Species Slatus								
Dominant Indicator Species 30' radius W. Cover Species Slatus								
Time Stratum (Plot size: 30' radius 96 Cover Species 75 Estuds Sapular (Plot size: 30' radius 95 Yes FACU Species 75 FACU Species	VEGETATION -	Use scientific	names of plants					
Duercus rubra				Absolu	te Dominant	Indicator		
2 Cercis canadensis	,	size: 30' radius)				Dominance Test workshee	t:
Suniperus virginiana		2010					Number of Deminent Chasis	
Sapling/Shrub Stratum (Plot size: 15' radius 10% Yes FACU FACU Faculty or FAC: 0% (A/B)	-						· ·	
Sapiling/Shrub Stratum (Plot size: 15 radius 10% Yes FACU F		nana				17100	matrio obe, triovi, oi tri	<u> </u>
Percent of Dominant Species 10							Total Number of Dominant	
1. Cercis canadensis 10% Yes FACU That Are OBL, FACW, or FAC: 0% (A/B)				95%	= Total Cover		Species Across All Strata:	5 (B)
1. Cercis canadensis 10% Yes FACU That Are OBL, FACW, or FAC: 0% (A/B)								
2 3 4 4 5 5		_ · _	5' radius)			=		
3. 4. 5. 5.	-	nsis		10%	Yes	FACU	That Are OBL, FACW, or FA	.C:(A/B)
A								
Total Cover of:	-				<u> </u>		Prevalence Index workshee	et:
Herb Stratum (Plot size: 5' radius) 1. Solidago canadensis 50% Yes FACU FACU species 10% x2 = 0.2	-							
1. Solidago canadensis 2. Symphyotrichum encoides 30% Yes FACU FAC species 10% x2 = 0.2 2. Symphyotrichum encoides 30% Yes FACU FAC species x3 = 3.3				10%	= Total Cover		Total % Cover of:	Multiply by:
2. Symphyotrichum ericoides 3. Spartina pectinata 10% No FACW 4.		-)					
3. Spartina pectinata 4.								
4								
5. Column Totals: 1.95 (A) 7.6 (B) 7. Prevalence Index = B/A = 3.90 8. Hydrophytic Vegetation Indicators: 10. 1.4 (A) 1.4 (A) <td></td> <td>ala</td> <td></td> <td>1070</td> <td></td> <td>TACW</td> <td></td> <td></td>		ala		1070		TACW		
6.							· -	
8.	6.							
9.	-						Prevalence Index =	B/A = 3.90
10. Hydrophytic Vegetation Indicators:	-							
11.							Undrankutia Vagatatian In	diaatawa
12.							hydrophytic vegetation in	licators.
13. 14. 15. 16. 17. 18. 19. 20. 20. 21. 40. 40. 40. 40. 40. 40. 40. 4	-					-	1-Rapid Test for Hv	drophytic Vegetation
4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 19. 20. 90% = Total Cover Woody Vine Stratum (Plot size: 30' radius) 1. 2. = Total Cover 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No _X	-							
data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1.	14.							
17								
18. 19. 20. 90% = Total Cover Woody Vine Stratum (Plot size: 30' radius) 1. 2. = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No X								• •
19							Problematic Hydrop	onytic Vegetation* (Explain)
be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 30' radius) Hydrophytic	40						¹ Indicators of hydric soil and	wetland hydrology must
90% = Total Cover							-	
1				90%	= Total Cover			'
1								
2 = Total Cover Present? Yes No _X	Woody Vine Stratur	m (Plot size: 30)' radius)					
= Total Cover							_	
	2				= Total Carrie		Present? Yes	No X
Remarks: (Include photo numbers here or on a separate sheet.)					= rotal Cover			
, , , , , , , , , , , , , , , , , , ,	Remarks: (Include	photo numbers here	e or on a separate she	et.)			_I	
)	-	•	•				

SOIL Sampling Point: WL-012-UPL

Profile Desc	ription: (Describe to	the depth nee	ded to document the		onfirm the a	bsence o	f indicators.)				
Depth	Matrix		Re	edox Features			-				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Rem	arks	
0-3	2.5Y 4/3	100					Cl Sa Lo				
3-12	2.5Y 6/4	80	2.5Y 6/8	10	С	M	Sand loam				
			2.5Y 6/1	10	D	М					
							-				-
¹ Type: C=C	oncentration, D=Deple	tion, RM=Redu	uced Matrix, CS=Cover	ed or Coated S	and Grains.	² Locat	ion: PL=Pore	Lining, M	∕I=Matrix.		
Hydric Soil I	ndicators:					Indic	ators for Pro	blematic	: Hydric Soils ³ :		
Histoso	I (A1)			ed Matrix (S4)			Coas	t Prairie l	Redox (A16)		
Histic E	pipedon (A2)		Sandy Red	ox (S5)			Iron-l	Mangane	se Masses (F12	2)	
	istic (A3)		Stripped Ma	, ,				Surface (,		
	en Sulfide (A4)			ky Mineral (F1	•				Dark Surface (T	F12)	
	d Layers (A5)			yed Matrix (F2)			Othe	r (Explair	in Remarks)		
	uck (A10)		Depleted M	, ,							
	d Below Dark Surface	(A11)		Surface (F6)	_\		3				
	ark Surface (A12)			ark Surface (F7	()				ohytic vegetation		
	Mucky Mineral (S1)		Redox Dep	ressions (F8)					y must be pres		
	ucky Peat or Peat (S3))					uniess	s disturbe	ed or problemati	C.	
	ayer (if observed):										
Type: _ Depth (i	aches).					Hydric	Soil Present	2	Yes	No	Y
Deptii (ii						Tiyano	Oon i resent	·	103	'''	
111/2201	201										
HYDROLO Wetland Hyd	rology Indicators:										
_	ators (minimum of one	e is required: ch	neck all that apply)				Secon	ndarv Ind	icators (minimu	m of two rea	uired)
	Water (A1)	, 10 10 quii oui oi	11 77	ned Leaves (B9	9)				Soil Cracks (B6		<u></u>
	ater Table (A2)		Aquatic Fau		,				e Patterns (B10)	•	
Saturat				ic Plants (B14)					son Water Tabl		
Water N	Marks (B1)		Hydrogen S	Sulfide Odor (C	1)			Crayfish	Burrows (C8)		
Sedime	nt Deposits (B2)		Oxidized R	hizospheres on	Living Roo	ts (C3)		Saturatio	on Visible on Ae	rial Imagery	(C9)
Drift De	posits (B3)		Presence o	f Reduced Iron	(C4)			Stunted	or Stressed Pla	nts (D1)	
Algal M	at or Crust (B4)		Recent Iron	Reduction in	Tilled Soils (C6)			ohic Position (D	2)	
	posits (B5)			Surface (C7)				FAC-Neu	utral Test (D5)		
	ion Visible on Aerial In			Vell Data (D9)							
Sparsel	y Vegetated Concave	Surface (B8)	Other (Expl	ain in Remarks	s) 						
Field Observ											
Surface Water		Yes No		-							
Water Table		Yes No	- ' '	· ——			D 10		.,		
Saturation P		Yes No	X Depth (inche	s): N/A	Wetland	d Hydrolo	gy Present?		Yes	No	X
(includes cap		auge meniteri	ng well, aerial photos, p	revious inspe	tions) if are	nilabla:					
Describe Re	corded Data (stream g	auge, monitorii	ng well, aeriai priotos, p	revious irisped	aions), ii ava	allable.					
Remarks:											
Slight saturati	on at surface only, like	ly due to 0.53 i	nches of rain from prev	rious night.							

Project/Site:	Willowbrook Solar Farm		City/County:	Preble		Sampling Date: <u>11/6/2017</u>
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-012-WET
Investigator(s):	BJS & MM		Sect	ion, Townshi	p, Range:	
Landform (hillslope	, terrace, etc.): none			Local r	elief (concave, convex, none):	Concave
Slope (%):	2% Lat: 39	9.047967	Long:		83.708228	Datum: WGS84
Soil Map Unit Name	e: AtB2				NWI class	ification: None
Are climatic / hydro	logic conditions on the site typical for	this time of year?	Yes	X No	(If no, explain in Remark	(S.)
Are Vegetation	No , Soil No , or Hydrol	ogy No significantly of	listurbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , or Hydrol	ogy No naturally prob	lematic?	(If need	led, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach site ma	p showing sampling	point loca	tions, trai	nsects, important featu	res, etc.
Hydrophytic Vegeta		X No_		Sampled Are	•	
Hydric Soil Present		X No		a Wetland?		X No
Wetland Hydrology	Present? Yes	X No				<u> </u>
Remarks:						
Linear depression v	vith significant standing water and no	vegetation within. Trees v	vere overhangi	ng.		
VEGETATION -	Use scientific names of pl	ants.			_	
To a Otrock was (Dist		Absolute	Dominant	Indicator		
Tree Stratum (Plot 1. Quercus rubra	size: 30' radius)	<u>% Cover</u> 15%	Species? Yes	Status FACU	Dominance Test workshee	t:
2.			165	FACU	Number of Dominant Specie	s.
3.					That Are OBL, FACW, or FA	
4.						
5.					Total Number of Dominant	
		15%	= Total Cover		Species Across All Strata:	1 (B)
Conline/Chrub Ctrot	tum (Diet eizer 15! redius)				Dercent of Deminant Specie	•
	tum (Plot size: 15' radius)				Percent of Dominant Species That Are OBL, FACW, or FA	
2					mat Aic OBE, I AOW, OI I A	O(AB)
					Prevalence Index workshee	et:
5						
Llaub Chrahum /Dlah	aine. Flandina		= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot 1.					OBL species FACW species	x1 = x2 =
					FAC species	x3 =
					FACU species 15%	x4 = 0.6
4					UPL species	x5 =
5					Column Totals: 0.15	(A) 0.6 (B)
6					Description of Index -	B/A = 4.00
7. 8.					Prevalence Index =	D/A - 4.00
9.						
10.					Hydrophytic Vegetation Inc	dicators:
11						
12.						drophytic Vegetation
13. 14.					2-Dominance Test i 3-Prevalence Index	
15						aptations ¹ (Provide supporting
16.						on a separate sheet)
17.					X Problematic Hydro	phytic Vegetation ¹ (Explain)
18.					L. —	
					¹ Indicators of hydric soil and	
20.			- Tatal Causa		be present, unless disturbed	or problematic.
			= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radius)				Hydrophytic	
					Vegetation	
2.					_	XNo
			= Total Cover			
Demonstra (f. 1.)	-b-tb	to all and Y				
remarks: (Include	photo numbers here or on a separat	le sneet.)				

SOIL Sampling Point: WL-012-WET

Depth Ma	atrix	Red	lox Features				
nches) Color (mo		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
		Color (molot)					- Tomano
						. ———	
· · · · · · · · · · · · · · · · · · ·							
Type: C=Concentration, D=	-Depletion RM=Red	uced Matrix CS=Covere	d or Coated S	Sand Grains	² Locati	ion: PI =Pore	Lining, M=Matrix.
dric Soil Indicators:	-Bepietion, Min-Med	uced Matrix, 00-00vere	d or Coaled C	Janu Oranis			blematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleve	d Matrix (S4))			st Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Redo	, ,	,			Manganese Masses (F12)
Black Histic (A3)		Stripped Mat					Surface (S7)
Hydrogen Sulfide (A4)			y Mineral (F1	1)			Shallow Dark Surface (TF12)
Stratified Layers (A5)			ed Matrix (F2)	,			er (Explain in Remarks)
2 cm Muck (A10)		Depleted Ma	, ,	,			(Explain in Romano)
Depleted Below Dark S	urface (A11)	Redox Dark					
Thick Dark Surface (A1			rk Surface (F0)	7)		3Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (,	Redox Depre		')			I hydrology must be present,
5 cm Mucky Peat or Pe		Redox Depre	3310113 (1 0)				s disturbed or problematic.
	. ,					unics	s disturbed of problematic.
estrictive Layer (if observe	ed):						
Type:		•					-
Depth (inches):					пушть	Soil Present	? Yes X No
	standing water.						
sumed to due to signficant							
Sumed to due to signficant YDROLOGY Vetland Hydrology Indicator	ors:	heck all that apply)				Seco	ndary Indicators (minimum of two required)
YDROLOGY Setland Hydrology Indicator	ors:	11 37	ed I eaves (B	9)		Seco	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
YDROLOGY Yetland Hydrology Indicator rimary Indicators (minimum X Surface Water (A1)	ors:	X Water-Staine	,	9)		Seco	Surface Soil Cracks (B6)
YDROLOGY etland Hydrology Indicator rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2)	ors:	X Water-Staine	na (B13)	,		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLOGY Vetland Hydrology Indicator Virimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3)	ors:	X Water-Staine Aquatic Faur True Aquatic	na (B13) : Plants (B14))		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY Tetland Hydrology Indicator rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen St	na (B13) : Plants (B14) ılfide Odor (C) (1)	ts (C3)	Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROLOGY Vetland Hydrology Indicate Inimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi	na (B13) Plants (B14) Ilfide Odor (C zospheres or) C1) n Living Roo	ts (C3)	Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
YDROLOGY Tetland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror) C1) n Living Roo n (C4)		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indicate Virimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror) C1) n Living Roo n (C4)		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S	na (B13) Plants (B14) Iffide Odor (C zospheres or Reduced Iror Reduction in urface (C7)) C1) n Living Roo n (C4)		Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROLOGY Tetland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ell Data (D9)) c1) n Living Roo n (C4) Tilled Soils (Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY Tetland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	na (B13) Plants (B14) Iffide Odor (C zospheres or Reduced Iror Reduction in urface (C7)) c1) n Living Roo n (C4) Tilled Soils (Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
yDROLOGY etland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron I Thin Muck S Gauge or We Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ell Data (D9) in in Remarks) c1) n Living Roo n (C4) Tilled Soils (Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co eld Observations: urface Water Present?	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron I Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ell Data (D9) in in Remarks) c1) n Living Roo n (C4) Tilled Soils (Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicate imary Indicators (minimum & Surface Water (A1) K High Water Table (A2) K Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A K Sparsely Vegetated Coeld Observations: urface Water Present?	ors: of one is required: continued: continue	X Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ell Data (D9) in in Remarks) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLOGY etland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co eld Observations: urface Water Present? vater Table Present?	ors: of one is required: c	X Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ell Data (D9) in in Remarks) (c1) In Living Roo In (C4) Tilled Soils (C6)	Seco	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLOGY etland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co eld Observations: urface Water Present? //ater Table Present? aturation Present? includes capillary fringe)	ors: of one is required: control of one is required: contr	X Water-Stains Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ill Data (D9) in in Remarks T 0 0) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLOGY Vetland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co Vetland Observations: Vater Table Present? Vater Table Present? aturation Present? Includes capillary fringe)	ors: of one is required: control of one is required: contr	X Water-Stains Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ill Data (D9) in in Remarks T 0 0) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLOGY Vetland Hydrology Indicate rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co Vetland Observations: Vater Table Present? Vater Table Present? aturation Present? Includes capillary fringe)	ors: of one is required: control of one is required: contr	X Water-Stains Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ill Data (D9) in in Remarks T 0 0) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Co ield Observations: Surface Water Present? Vater Table Present? Saturation Present? Includes capillary fringe) Describe Recorded Data (str	ors: of one is required: control of one is required: contr	X Water-Stains Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ill Data (D9) in in Remarks T 0 0) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Sediment Deposits (B2 Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ors: of one is required: control of one is required: contr	X Water-Stains Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ill Data (D9) in in Remarks T 0 0) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLOGY Vetland Hydrology Indicator rimary Indicators (minimum X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A X Sparsely Vegetated Coeld Observations: Vater Table Present? Vater Table Present? Vater Table Present? Vater Table Present? Includes capillary fringe) Vescribe Recorded Data (street	ors: of one is required: control of one is required: contr	X Water-Stains Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or Wo Other (Expla	na (B13) Plants (B14) Ilfide Odor (C zospheres or Reduced Iror Reduction in urface (C7) Ill Data (D9) in in Remarks T 0 0) (c1) In Living Roo In (C4) Tilled Soils (C6)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar	Farm		City/County	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Rene	wables				State: OH	Sampling Point: WL-013-UPL
Investigator(s):	BJS & MM			Sec	tion, Townsh	ip, Range:	
Landform (hillslope,	terrace, etc.): hi	llslope			Local	relief (concave, convex, none): <u>C</u>	Convex
Slope (%):	1% Lat:	39.0426	63	Long:		-83.706708	Datum: WGS84
Soil Map Unit Name	e: Cle1A					NWI classifi	cation: None
Are climatic / hydrol	ogic conditions on t	the site typical for this tir	me of year?	Yes	X No	(If no, explain in Remarks	.)
Are Vegetation	No, Soil	No , or Hydrology	No significan	tly disturbed?	Are "N	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil	No , or Hydrology	No naturally	oroblematic?	(If need	ded, explain any answers in Rem	arks.)
SUMMARY OF	FINDINGS A	ttach site map she	owing sampl	ling point loca	tions, tra	nsects, important feature	es, etc.
Hydrophytic Vegeta	tion Present?	Yes	No X	Is the	Sampled Ar	ea	
Hydric Soil Present	?	Yes	No X	within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No X	_			
Remarks:							
VEGETATION -	Use scientific	names of plants.	•				
To a Otraction (Dist		,	Absolu		Indicator		
Tree Stratum (Plot 1.	size: 30' radius)	% Cov	er Species?	Status	Dominance Test worksheet:	
						Number of Dominant Species	
3.						That Are OBL, FACW, or FAC	: 1 (A)
4.							
						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	rum (Plot size: 1	5' radius)				Percent of Dominant Species	
4) Tadius)				That Are OBL, FACW, or FAC	: 50% (A/B)
							(12)
						Prevalence Index worksheet	•
5				- Total Cavan		Tatal 0/ Causa af	Mariation Inc. Inc. o.
Herb Stratum (Plot	size: 5' radius	1	-	= Total Cover		Total % Cover of: OBL species	Multiply by: x1 =
Glycine max	o radius		70%	Yes	UPL	FACW species	x2 =
Hydrocotyle sib	thorpioides		30%		FAC	FAC species 30%	x3 = 0.9
3.						FACU species	x4 =
4						UPL species 70%	x5 = 3.5
5						Column Totals: 1.00	(A)(B)
6. 7.						Prevalence Index = B	s/A = 4.40
8.						Trovalonoo maax	1.10
9.							
10.						Hydrophytic Vegetation Indi	cators:
11							
						1-Rapid Test for Hydr	
13. 14.						2-Dominance Test is 3-Prevalence Index is	
15.							otations ¹ (Provide supporting
16.						data in Remarks or c	
17.						Problematic Hydroph	nytic Vegetation ¹ (Explain)
18							
						¹ Indicators of hydric soil and w	
20			100%	= Total Cover		be present, unless disturbed of	r problematic.
			1007				
Woody Vine Stratur	n (Plot size: 30)' radius)				Hydrophytic	
1						Vegetation Present? Yes	No. Y
<u></u>				= Total Cover		rieseitt fes_	No_X_
Remarks: (Include	photo numbers her	e or on a separate shee	et.)				

SOIL Sampling Point: WL-013-UPL

epth	cription: (Describe to t Matrix		Re	dox Features							
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Rema	arks	
0-6	2.5Y 6/3	100	00.0. (0.0.)				Sand loam				
6-12	2.5Y 7/6	100					Sand loam				
0-12	2.51 7/0	100		-			Sanu Ibani				
71	, ,	ion, RM=Red	uced Matrix, CS=Covere	d or Coated S	Sand Grains.		on: PL=Pore	<u> </u>			
	Indicators:					Indica			lydric Soils ³ :		
Histoso	, ,			ed Matrix (S4))			st Prairie Re			
	Epipedon (A2)		Sandy Redo					ū	e Masses (F12	2)	
	Histic (A3)		Stripped Ma					Surface (S			
	jen Sulfide (A4)			ky Mineral (F1					rk Surface (TF	F12)	
	ed Layers (A5)			ed Matrix (F2))		Othe	r (Explain i	n Remarks)		
	luck (A10)		Depleted Ma	` ,							
	ed Below Dark Surface (A11)		Surface (F6)			3				
	Dark Surface (A12)			rk Surface (F	7)				ytic vegetatior		
	Mucky Mineral (S1)		Redox Depr	essions (F8)					must be prese		
5 cm M	lucky Peat or Peat (S3)						unles	s disturbed	or problemation	O	
strictive L	_ayer (if observed):										
Type:											
_			-								
_	inches):		-			Hydric	Soil Present	?	Yes	No	X
Depth (i			-			Hydric	Soil Present	?	Yes	No	X
Depth (in marks:	OGY drology Indicators:		-			Hydric					
Depth (imarks: YDROL etland Hydrimary Indic	OGY drology Indicators: cators (minimum of one	is required: c				Hydric		ndary Indica	ators (minimur	m of two req	
Depth (i marks: YDROL etland Hyc imary India Surface	OGY drology Indicators: cators (minimum of one e Water (A1)	is required: c	Water-Stain	ed Leaves (B	9)	Hydric		ndary Indica Surface Sc	ators (minimur oil Cracks (B6)	m of two req	
Depth (i marks: YDROL etland Hyc imary India Surface	OGY drology Indicators: cators (minimum of one	is required: c	Water-Stain Aquatic Fau	na (B13)	,	Hydric		ndary Indica Surface So Drainage F	ators (minimur oil Cracks (B6) Patterns (B10)	m of two req	
Depth (i marks: YDROL etland Hyd imary India Surface High W Saturat	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3)	is required: c	Water-Stain Aquatic Fau True Aquati	na (B13) c Plants (B14))	Hydric		ndary Indica Surface So Drainage F Dry-Seaso	ators (minimur bil Cracks (B6) Patterns (B10) n Water Table	m of two req	
PDEPATH (in marks: YDROL etland Hyderimary India Surface High W Saturat Water I	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	is required: c	Water-Stain Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (B14) ulfide Odor (C) C1)			ndary Indica Surface So Drainage F Dry-Seaso Crayfish B	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8)	m of two req	uired)
PDROLO Timary Indio Surface High W Saturat Water I Sedime	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	is required: c	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B14) ulfide Odor (C izospheres or) C1) n Living Root			ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae	m of two req) e (C2) rial Imagery	uired)
Depth (i	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	is required: c	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror) C1) n Living Root n (C4)	s (C3)		ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plar	m of two req) e (C2) rial Imagery nts (D1)	uired)
PDROLO PORTOLO	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4)	is required: c	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in) C1) n Living Root n (C4)	s (C3)		ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plar ic Position (D2	m of two req) e (C2) rial Imagery nts (D1)	uired)
PDROLO PORTOLO	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (B14) ulfide Odor (C izospheres of Reduced Iror Reduction in Surface (C7)) C1) n Living Root n (C4)	s (C3)		ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plar	m of two req) e (C2) rial Imagery nts (D1)	uired)
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Depth (i	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaly Vegetated Concave Seposits (B3)	agery (B7) Surface (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (G	s (C3)		ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plar ic Position (D2	m of two req) e (C2) rial Imagery nts (D1)	uired)
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POPOLO PO	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Sevations: ter Present?	agery (B7) Surface (B8) Yes No Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (B14) ulfide Odor (C izospheres of Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark c): N/A N/A) C1) In Living Root In (C4) Tilled Soils (G	s (C3)	Seco	ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plan ic Position (D3 ral Test (D5)	m of two req	uired)
POPPOLO POPPOL	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Servations: ter Present? Present?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark c): N/A p: N/A) C1) n Living Root n (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Seco	ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plan ic Position (D3 ral Test (D5)	m of two req	uired)
POPPOLO POPPOL	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Servations: ter Present? Present?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark c): N/A p: N/A) C1) n Living Root n (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Seco	ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plan ic Position (D3 ral Test (D5)	m of two req	uired)
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Depth (i	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Servations: ter Present? Present?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark c): N/A p: N/A) C1) n Living Root n (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Seco	ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plan ic Position (D3 ral Test (D5)	m of two req	uired)
POPPOLO POPPOL	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Servations: ter Present? Present?	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark c): N/A p: N/A) C1) n Living Root n (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Seco	ndary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimur bil Cracks (B6) Patterns (B10) in Water Table urrows (C8) Visible on Ae Stressed Plan ic Position (D3 ral Test (D5)	m of two req	uired)

Project/Site:	Willowbrook Solar Farm		City/County:	Preble		Sampling Date: 11/6/2017
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-013-WET
Investigator(s):	BJS & MM		Sect	ion, Townshi	p, Range:	
Landform (hillslope,	, terrace, etc.): none			Local r	relief (concave, convex, none): <u>C</u>	oncave
Slope (%):	2% Lat: 39.042311		Long:		-83.706708	Datum: WGS84
Soil Map Unit Name	e: RpC2				NWI classific	cation: PABGh
Are climatic / hydrol	logic conditions on the site typical for this time of	of year?	Yes_	X No	(If no, explain in Remarks	.)
Are Vegetation	No , Soil No , or Hydrology No	significantly d	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , or Hydrology No	naturally prob	lematic?	(If need	ded, explain any answers in Rem	arks.)
SUMMARY OF	FINDINGS Attach site map showi	ng sampling	point loca	tions, trai	nsects, important feature	es, etc.
Hydrophytic Vegeta Hydric Soil Present' Wetland Hydrology	? Yes X	No		Sampled Are a Wetland?		No
	Tresent: Tes A	No				
	th large wetland area around it.					
VEGETATION -	Use scientific names of plants.				Т	
Tree Stratum (Plot		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1					Number of Dominant Species	
3.					That Are OBL, FACW, or FAC	: 2 (A)
4.						
5					Total Number of Dominant	
			= Total Cover		Species Across All Strata:	(B)
	tum (Plot size: 15' radius)				Percent of Dominant Species That Are OBL, FACW, or FAC	:(A/B)
2						
					Prevalence Index worksheet:	1
5						
			= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot 1. Typha angustifo	·	70%	Yes	OBL	OBL species 70% FACW species 40%	x1 = 0.7 x2 = 0.8
Spartina pectina		40%	Yes	FACW	FAC species 40%	x3 =
3.					FACU species	x4 =
4.					UPL species	x5 =
5					Column Totals: 1.10	(A)(B)
6. 7.					Prevalence Index = B	/A = 1.36
8.		_			Frevalence index - b	/A - 1.50
9.						
10.					Hydrophytic Vegetation Indi	cators:
11						
12.					X 1-Rapid Test for Hydr	
13. 14.					X 2-Dominance Test is X 3-Prevalence Index is	
15.						otations ¹ (Provide supporting
16.					data in Remarks or o	
17.					X Problematic Hydroph	ytic Vegetation ¹ (Explain)
18					1	
					¹ Indicators of hydric soil and w	
20		110%	= Total Cover		be present, unless disturbed o	r problematic.
Woody Vine Stratur	m (Plot size: 30' radius)	110%	- Total Cover		Hydrophytic	
1	 /				Vegetation	X No
			= Total Cover		_	<u> </u>
Remarks: (Include	photo numbers here or on a separate sheet.)				.1	

SOIL Sampling Point: WL-013-WET

nches) Color (moist) 0-1 2.5Y 3/2 1-12 2.5Y 6/1	%			1		•	
	70	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
1-12 2.5Y 6/1	100		_			Clay	
	95	2.5Y 7/8	5	С	М	Clay	
			_			· ——	
Type: C=Concentration, D=Deple	etion, RM=Redu	uced Matrix, CS=Cover	ed or Coated	Sand Grains	² Locati	on: PL=Pore	Lining, M=Matrix.
dric Soil Indicators:					Indic	ators for Pro	blematic Hydric Soils ³ :
Histosol (A1)			ed Matrix (S4)		Coas	t Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Red				Iron-I	Manganese Masses (F12)
Black Histic (A3)		Stripped Ma	, ,				Surface (S7)
Hydrogen Sulfide (A4)			ky Mineral (F	•			Shallow Dark Surface (TF12)
Stratified Layers (A5)			ed Matrix (F2	2)		Othe	r (Explain in Remarks)
2 cm Muck (A10)	(0.44)	X Depleted M	. ,				
Depleted Below Dark Surface Thick Dark Surface (A42)	e (A11)		Surface (F6)			31	af budaankadia ua satetta a aad
Thick Dark Surface (A12)			ark Surface (F	-1)			of hydrophytic vegetation and
Sandy Mucky Mineral (S1)5 cm Mucky Peat or Peat (S3		Redox Dep	ressions (F8)				hydrology must be present, s disturbed or problematic.
	''					uniess	s distarbed of problematic.
estrictive Layer (if observed):							
Type:						Soil Present	? Yes X No
		'					
VDBOLOGV							
YDROLOGY //etland Hydrology Indicators:							
etland Hydrology Indicators:	e is required: ch	neck all that apply)				Seco	ndary Indicators (minimum of two required)
etland Hydrology Indicators: rimary Indicators (minimum of on	e is required: cl		ned Leaves (E	39)		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
retland Hydrology Indicators: rimary Indicators (minimum of on X Surface Water (A1)	e is required: cl		•	39)		Secoi	
retland Hydrology Indicators: rimary Indicators (minimum of on X Surface Water (A1) X High Water Table (A2)	e is required: cl	Water-Stair Aquatic Fau	•	,		Secon	Surface Soil Cracks (B6)
Vetland Hydrology Indicators: Vrimary Indicators (minimum of on X Surface Water (A1) X High Water Table (A2)	e is required: cl	Water-Stair Aquatic Fau True Aquat	una (B13)	.)		Secon	Surface Soil Cracks (B6) Drainage Patterns (B10)
Vetland Hydrology Indicators: Vrimary Indicators (minimum of on X Surface Water (A1) X High Water Table (A2) X Saturation (A3)	e is required: cl	Water-Stair Aquatic Fat True Aquat Hydrogen S	una (B13) ic Plants (B14) C1)	ts (C3)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Vetland Hydrology Indicators: Inimary Indicators (minimum of on X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	e is required: cf	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized Ri	una (B13) ic Plants (B14 Sulfide Odor (0	c) C1) n Living Roo	ts (C3)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Vetland Hydrology Indicators: Inimary Indicators (minimum of on X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e is required: ch	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized Ri	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres c	.) C1) n Living Roo n (C4)	, ,	<u> </u>	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Vetland Hydrology Indicators: Verimary Indicators (minimum of on X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14 sulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7)	.) C1) n Living Roo n (C4) Tilled Soils (, ,	x x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Vetland Hydrology Indicators: Verland Hydrology Indicators: Verlan	magery (B7)	Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7) Vell Data (D9)	.) C1) n Living Roo n (C4) Tilled Soils (, ,	x x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Project/Site:	Willowbrook Solar	r Farm		City/County:	Brown		Sampling Date: 6/20/2018
Applicant/Owner:	Open Road Renev	wables				State: OH	Sampling Point: WL-014-UPL
Investigator(s):	BH & JJC			Sect	ion, Townshi	ip, Range:	
Landform (hillslope,	, terrace, etc.): To	peslope				relief (concave, convex, none):	Concave
Slope (%):	0% Lat:	39.020029	987	Long:	-{	33.70044477	Datum: NAD83 UTM16N
Soil Map Unit Name				J		NWI classi	
•	-	the site typical for this tir	me of year?	Ves	X No	(If no, explain in Remark	
-	_		-	_		ormal Circumstances" present?	
Are Vegetation		No , or Hydrology				·	
Are Vegetation		No , or Hydrology _				ded, explain any answers in Re	
SUMMARY OF	FINDINGS A	ttach site map sho		point loca	tions, trar	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes	No X	Is the	Sampled Ar		
Hydric Soil Present	?	Yes X	No	within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	NoX				
Remarks:							
VEGETATION	Use scientific	c names of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	<u>: </u>	% Cover	Species?	Status	Dominance Test workshee	t:
1							
0						Number of Dominant Species	3
3						That Are OBL, FACW, or FA	C:(A)
4							
5						Total Number of Dominant	
			 :	= Total Cover		Species Across All Strata:	(B)
Canling/Chrub Ctrat	tum (Diet eize: 15	El radius)				Dereant of Deminant Charles	
	tum (Plot size: 15					Percent of Dominant Species That Are OBL, FACW, or FA	
2.						That Ale ODE, I ACW, OF I A	J. 3070 (A/B)
							
. —						Prevalence Index workshee	t:
5.							
				Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)				OBL species 8%	x1 = 0.08
1. Schedonorus a	rundinaceus		80%	Yes	FACU	FACW species 10%	x2 = 0.2
2. Apocynum cani	nabinum		30%	Yes	FAC	FAC species 35%	x3 = 1.05
3. Carex cristatella			10%	No	FACW	FACU species 80%	x4 = 3.2
4. Carex squarros			5%	No No	OBL	UPL species	x5 =
5. Rumex crispus			5%	No No	FAC	Column Totals: 1.33	(A) 4.53 (B)
6. Carex frankii	mata		<u>2%</u> 1%	No No	OBL	Prevalence Index =	D/A = 2.41
7. Asclepias incari	riala		170	INO	OBL	Prevalence index –	B/A = 3.41
9.							
10.						Hydrophytic Vegetation Inc	dicators:
11.			· · · · · · · · · · · · · · · · · · ·			.,,,	
12.						1-Rapid Test for Hy	drophytic Vegetation
13.						2-Dominance Test is	s >50%
14.						3-Prevalence Index	
15							aptations ¹ (Provide supporting
16.							on a separate sheet)
17						Problematic Hydrop	ohytic Vegetation ¹ (Explain)
18						1	
						¹ Indicators of hydric soil and	
20			1000/			be present, unless disturbed	or problematic.
			133%	= Total Cover			
Manda Mina Charles	(Diet -i=- 20	01 == di				I hadaa ahadia	
Woody Vine Stratur	- ' -	0' radius)				Hydrophytic Vegetation	
1						_	No. Y
				= Total Cover		. resem: res	No X
Remarks: (Include	photo numbers here	e or on a separate shee	t.)				

SOIL Sampling Point: WL-014-UPL

epth	cription: (Describe to Matrix		R	edox Features	;			
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 4/2	100					Loam	
3 - 20	10YR 5/2	90	10YR 3/6	10		M	Si Cl Lo	
0 20			10111070				0.0.20	
				_				
				_				
				_				
				_				
		 				2		
	Concentration, D=Deple Indicators:	etion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.			Lining, M=Matrix. plematic Hydric Soils³:
Histoso			Sandy Gla	yed Matrix (S4	1	muic		t Prairie Redox (A16)
	Epipedon (A2)		Sandy Red	,	;)			Manganese Masses (F12)
	Histic (A3)		Stripped M					Surface (S7)
	jen Sulfide (A4)			cky Mineral (F	1)			Shallow Dark Surface (TF12)
	ed Layers (A5)			yed Matrix (F2				(Explain in Remarks)
	luck (A10)		X Depleted N	•	-,			(Explain in Containo)
_	ed Below Dark Surface	(A11)		k Surface (F6))			
	Dark Surface (A12)	(A11)		ark Surface (F			3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)			ressions (F8)	,			hydrology must be present,
_	lucky Peat or Peat (S3)	Nedox Dep	/ C3310113 (1 0)				disturbed or problematic.
		,						
Type:	Layer (if observed):							
			-			Herelet e		V V N-
Depth (i	inches):		-			Hydric	Soil Present?	? Yes <u>X</u> No
Depth (ii			-			нуапс	Soil Present?	resNo
Depth (in narks:	OGY drology Indicators:		-			нуапс		
Depth (in parks:	OGY drology Indicators: cators (minimum of one	e is required: c				нуапс	Secon	dary Indicators (minimum of two required)
Depth (in parks: DROL(tland Hydemary Indicates) Surface	OGY drology Indicators: cators (minimum of one e Water (A1)	e is required: c	Water-Stai	ned Leaves (E	39)	нуапс	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6)
Depth (in parks: DROL(tland Hyden mary Indice	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2)	e is required: c	Water-Stai Aquatic Fa	una (B13)	,	нуапс	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
Depth (in parks: DROL(tland Hyder mary Indice Surface High W Saturati	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3)	e is required: c	Water-Stai Aquatic Fa True Aqua	una (B13) tic Plants (B14	,	нуапс	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (in parks: Depth (in parks: Depth (in parks: Depth (in parks) TDROL(in parks) Surface High W Saturati Water M	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	e is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen	una (B13) tic Plants (B14 Sulfide Odor (0) C1)	-	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (in parks: Depth (in parks: Depth (in parks: Depth (in parks) Surface High W Saturati Water M Sedime	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	e is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres o	C1) n Living Roo	-	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Depth (in parks: Depth (in parks: Depth (in parks: Depth (in parks) Depth (in pa	ogy drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	e is required: c	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres c of Reduced Iro	(C1) C1) on Living Roo on (C4)	ts (C3)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
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Depth (ii narks: TDROL(etland Hyd imary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5)		Water-Stai Aquatic Fa True Aquai Hydrogen i Oxidized R Presence o Recent Iron Thin Muck	una (B13) tic Plants (B14) Sulfide Odor (Ghizospheres of Reduced Iron Reduction in Surface (C7)	(c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	ts (C3)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
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Depth (in narks: DROLO tland Hyde mary Indice Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundati	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5)	nagery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N	una (B13) tic Plants (B14) Sulfide Odor (Ghizospheres of Reduced Iron Reduction in Surface (C7)	c) C1) on Living Roo on (C4) Tilled Soils (ts (C3)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (ii narks: TOROL(etland Hyde imary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial In ly Vegetated Concave vations:	nagery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9)	c) C1) on Living Roo on (C4) Tilled Soils (ts (C3)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (ii narks: TOROL(etland Hyde imary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	OGY drology Indicators: cators (minimum of one of water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) tion Visible on Aerial In ally Vegetated Concave vations: ter Present?	nagery (B7) Surface (B8) Yes No	Water-Stai Aquatic Fa True Aquatic Fa Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Ghizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark	c) C1) on Living Roo on (C4) Tilled Soils (ts (C3)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Depth (ii narks: Selfand Hyd Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Deld Observer (inface Water Table Lituration Prince (iii) Depth (iii) Indicate (iii) Indica	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations: ere Present? Present?	nagery (B7) Surface (B8) Yes No Yes No	Water-Stai Aquatic Fa True Aquatic Fa Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or N Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Iain in Remark Ses): N/A Ses): >18	c) C1) C1) In Living Roo In (C4) Tilled Soils (ts (C3)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Depth (ii marks: TOROLO Patland Hyde imary Indice Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Patland Hyde Iron De Inundat Sparsel Patland Hyde Iron De Inundat Sparsel	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial In ally Vegetated Concave vations: ere Present? Present? fresent?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aquatic Fa Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or N Other (Exp X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Iain in Remark Ses): N/A Ses): >18	C1) C1) C1) In Living Roo In (C4) Tilled Soils (CS) Wetlan	ts (C3) C6)	Secon X	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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Project/Site:	Willowbrook Solar Farm			City/County:	Highland		Sampling Date: <u>6/20/2018</u>
Applicant/Owner:	Open Road Renewables	3				State: OH	Sampling Point: WL-014-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Stream t	errace			Local	relief (concave, convex, none):	Concave
Slope (%):	0% Lat:	39.02280561		Long:	-8	33.70095288	Datum: NAD83 UTM16N
Soil Map Unit Name				<u> </u>		NWI classi	· -
•	logic conditions on the site	typical for this time o	of year?	Yes	X No.	(If no, explain in Remark	
-	-		-	_		ormal Circumstances" present?	
Are Vegetation	No , Soil No		_			·	
Are Vegetation	No , Soil No		_			ded, explain any answers in Re	
SUMMARY OF	FINDINGS Attach	site map showii	ng sampling	point locat	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?		No		Sampled Ar	ea	
Hydric Soil Present		Yes X	No	within	a Wetland?	Yes Yes	X No
Wetland Hydrology	Present?	Yes X	No				
Remarks:							
VEGETATION	Use scientific nan	nes of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
2						Number of Dominant Species	
3						That Are OBL, FACW, or FA	.C: <u>3</u> (A)
4							
5				T-1-1 0		Total Number of Dominant	(5)
				= Total Cover		Species Across All Strata:	(B)
Sanling/Shrub Strat	tum_(Plot size: 15' radiu	s)				Percent of Dominant Species	e
	· · · · · · · · · · · · · · · · · · ·					That Are OBL, FACW, or FA	
2.						That the OBE, I HOW, OI I TH	(10070 (1007)
						Prevalence Index workshee	et:
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)				OBL species 70%	x1 = 0.7
Leersia oryzoid	les		40%	Yes	OBL	FACW species 10%	x2 = 0.2
2. Typha latifolia			15%	Yes	OBL	FAC species 15%	x3 = 0.45
3. Scirpus atrovire	ens		15%	Yes	OBL	FACU species 5%	x4 = 0.2
Salix interior Poa pratensis			10%	No No	FACW	UPL species	x5 = (A) 1.55 (B)
6. Campsis radica	nne		5%	No No	FACU	Column Totals: 1.00	(A)1.55(B)
7. Vernonia gigan			5%	No	FAC	Prevalence Index =	B/A = 1.55
8.	100				1710	T TOVAIGITOO ITIAGX	1.00
9.							
10.						Hydrophytic Vegetation Inc	dicators:
11.							
12.						X 1-Rapid Test for Hy	
13.						X 2-Dominance Test is	
14						X 3-Prevalence Index	
							aptations ¹ (Provide supporting
16.							on a separate sheet)
17.						Problematic Hydrop	phytic Vegetation ¹ (Explain)
18.						¹ Indicators of hydric soil and	wotland hydrology must
19. 20.						be present, unless disturbed	
20			100%	= Total Cover		be present, unless disturbed	or problematic.
			10070	- Total Cover			
Woody Vine Stratur	n (Plot size: 30' radiu	s)				Hydrophytic	
	<u> </u>	,				Vegetation	
2.							X No
				= Total Cover			
Remarks: (Include	photo numbers here or on	a separate sheet.)					

SOIL Sampling Point: WL-014-WET

epth	ription: (Describe to th Matrix		Re	edox Features				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 5/2	95	10YR 3/4	5	C	M	Si Cl Loam	
0 20							<u> </u>	
, .	Concentration, D=Depletic Indicators:	on, RM=Redu	ced Matrix, CS=Cover	ed or Coated S	Sand Grains.			Lining, M=Matrix. blematic Hydric Soils³:
Histoso			Sandy Glay	ed Matrix (S4)	١	muic		t Prairie Redox (A16)
	Epipedon (A2)		Sandy Red	, ,)			Manganese Masses (F12)
	Histic (A3)		Stripped Ma					Surface (S7)
	jen Sulfide (A4)			ky Mineral (F1	1\			Shallow Dark Surface (TF12)
	ed Layers (A5)			yed Matrix (F2)	.)		Other	(Explain in Remarks)
	luck (A10)	(44)	X Depleted M					
	ed Below Dark Surface (A	A11)		Surface (F6)			31	af hardwards die an water oor d
	Dark Surface (A12)			ark Surface (F	7)			of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox Dep	ressions (F8)				hydrology must be present,
	lucky Peat or Peat (S3)						unless	disturbed or problematic.
	Layer (if observed):							
Type:								. V
	inches):					Hydric	Soil Present	? Yes <u>X</u> No
marks:						Hydric	Soil Present	r 1es <u> </u>
marks:						Hydric	Soil Present	Yes A NO
marks: YDROL	OGY	s required: ch	eck all that apply)			Hydric		ndary Indicators (minimum of two required)
YDROLO etland Hydrimary Indid	OGY drology Indicators:	s required: ch		ned Leaves (B	9)	Hydric	Secor	
YDROLO etland Hyorimary India Surface	OGY drology Indicators: cators (minimum of one is	s required: ch		`	9)	Hydric	Secon	ndary Indicators (minimum of two required)
YDROLO etland Hyo rimary Indio Surface K High W	OGY drology Indicators: cators (minimum of one is e Water (A1)	s required: ch	Water-Stair Aquatic Fa	`	,	Hydric	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
YDROL etland Hydrimary Indid Surface X High W X Saturat	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2)	s required: ch	Water-Stair Aquatic Fau True Aquat	una (B13))	Hydric	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLO Setland Hydrimary Indio Surface X High W X Saturat Water I	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3)	s required: ch	Water-Stair Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14)) D1)		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLO Vetland Hydrimary Indio Surface X High W X Saturat Water I Sedime	OGY drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1)	s required: ch	Water-Stair Aquatic Fai True Aquat Hydrogen \$ Oxidized R	una (B13) ic Plants (B14) Sulfide Odor (C) C1) n Living Root		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROLO etland Hyo rimary Indio Surface X High W X Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	s required: ch	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or) C1) n Living Root n (C4)	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
YDROLO etland Hyo rimary Indio Surface X High W X Saturat Water I Sedime Drift De Algal M	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	s required: ch	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or f Reduced Iror) C1) n Living Root n (C4)	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
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YDROLO etland Hyo rimary Indio Surface X High W X Saturat Water I Sedime Drift De Algal W Iron De Inundar	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5)	gery (B7)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or f Reduced Iror n Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROL etland Hydrimary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundai Sparse	ogy drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Su	gery (B7)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9)) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROL Yetland Hyo rimary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Su	gery (B7) urface (B8)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLO etland Hyo rimary Indio Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse eld Observ	oGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Survations: er Present?	gery (B7) urface (B8)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLO etland Hyo rimary Indio Surface X High W X Saturat Water I Sedime Drift De Algal W Iron De Inundar Sparse eld Observ urface Wat	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Image type Vegetated Concave Survations: ter Present? Yeresent? Yeresent?	gery (B7) urface (B8) ′esNo_	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 7") C1) n Living Root n (C4) Tilled Soils (C	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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YDROLO etland Hydrimary India Surface X High W X Saturat Water I Sedime Drift De Algal W Iron De Inundar Sparse eld Observentation Periodudes cal	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Survations: ere Present? Present? Yeresent?	gery (B7) urface (B8) /es No /es No /es X No /es X No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0) C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Secon X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLO etland Hyo rimary Indio Surface X High W X Saturat Water I Sedime Drift De Algal W Iron De Inundar Sparse eld Observ urface Wat //ater Table aturation P noludes cal	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Survations: ere Present? Present? Yeresent? Yeresent? Yeresent?	gery (B7) urface (B8) /es No /es No /es X No /es X No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0) C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Secon X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLO etland Hydrimary India Surface X High W X Saturat Water I Sedime Drift De Algal W Iron De Inundar Sparse eld Observentation Periodudes cal	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Survations: ere Present? Present? Yeresent? Yeresent? Yeresent?	gery (B7) urface (B8) /es No /es No /es X No /es X No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0) C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Secon X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLO etland Hydrimary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse eld Observurface Wat /ater Table aturation P ncludes cal escribe Re	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Survations: ere Present? Present? Yeresent? Yeresent? Yeresent?	gery (B7) urface (B8) /es No /es No /es X No /es X No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0) C1) n Living Root n (C4) Tilled Soils (C	s (C3) C6)	Secon X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar Far	m		City/County:	Highland		Sampling Date: 6/20/2018
Applicant/Owner:	Open Road Renewabl	les				State: OH	Sampling Point: WL-015-UPL
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	·
Landform (hillslope,	, terrace, etc.): Backs	lope			Local i	relief (concave, convex, none):	None
, ,	· · · · · ·	•	105	I ona:		,	Datum: NAD83 UTM16N
Soil Map Unit Name		00.02200				NWI classi	
•	logic conditions on the s	rito typical for this tir	mo of year?	Yes	V No.	(If no, explain in Remark	
-	-		-	_			
Are Vegetation	No , Soil No					ormal Circumstances" present?	
Are Vegetation	No , Soil No					ded, explain any answers in Re	,
SUMMARY OF	FINDINGS Attac	th site map sho	owing sampling	point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes	No X	Is the	Sampled Ar	rea	
Hydric Soil Present	?	Yes	No X	within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No X				
Remarks:							
VEGETATION -	Use scientific na	ames of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	t:
1.							
0						Number of Dominant Species	S
3.						That Are OBL, FACW, or FA	C: 1 (A)
4.							
5						Total Number of Dominant	
			:	= Total Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	tum (Plot size: 15' rad	dius)				Percent of Dominant Species	
· -						That Are OBL, FACW, or FA	C:(A/B)
2							
						D	4.
						Prevalence Index workshee	τ:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)		- Total Covel		OBL species	x1 =
Andropogon vir.		_'	30%	Yes	FACU	FACW species 30%	x2 = 0.6
Dichanthelium a	•		30%	Yes	FAC	FAC species 40%	x3 = 1.2
3. Erigeron annuu			20%	Yes	FACU	FACU species 70%	x4 = 2.8
Solidago gigant	tea		15%	No	FACW	UPL species	x5 =
5. Agrostis gigante	ea		15%	No	FACW	Column Totals: 1.40	(A) 4.6 (B)
6. Solidago altissii	ma		10%	No	FACU		
7. Eupatorium ser	rotinum		5%	No	FAC	Prevalence Index =	B/A = 3.29
8. Vernonia gigan			5%	No	FAC		
9. Schedonorus a			5%	No	FACU		
10. Solanum carolii	nense		5%	No	FACU	Hydrophytic Vegetation Inc	licators:
11							
12.						·	drophytic Vegetation
13.						2-Dominance Test is 3-Prevalence Index	
14							aptations¹ (Provide supporting
15. 16.							on a separate sheet)
17.							phytic Vegetation ¹ (Explain)
18.						i robicinatio riyarop	mytic vegetation (Explain)
19.						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	
			140%	Total Cover		be present, unless distarbed	or problemade.
Woody Vine Stratur	m (Plot size: 30' rad	dius)				Hydrophytic	
1	- ·					Vegetation	
2.						_	No X
				= Total Cover			
Remarks: (Include	photo numbers here or	on a separate shee	t.)				

Project/Site:	Willowbrook Solar Farm	l .		City/County:	Highland		Sampling Date: <u>6/20/2018</u>
Applicant/Owner:	Open Road Renewables	S				State: OH	Sampling Point: WL-015-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Backslo	pe			Local	relief (concave, convex, none):	Concave
Slope (%):	0% Lat:	39.02251	704	Long:		33.69658173	Datum: NAD83 UTM16N
Soil Map Unit Name			-	_		NWI class	· -
	logic conditions on the site	a typical for this ti	me of year?	Vec	X No	(If no, explain in Remark	-
•		* .	•	_		ormal Circumstances" present?	
Are Vegetation	No , Soil No					·	
Are Vegetation			No naturally pro			ded, explain any answers in Re	
SUMMARY OF	FINDINGS Attach	site map sho	owing samplin	g point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta		Yes X	No	-	Sampled Ar		
Hydric Soil Present		Yes X	No		a Wetland?	Yes	X No
Wetland Hydrology	Present?	Yes X	No	_			
Remarks:							
VEGETATION -	Use scientific nar	nes of plants.	•			T	
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Cover	Species?	Status	Dominance Test workshee	t:
1						Noveles of Development On a sign	
2. 3.						Number of Dominant Specie That Are OBL, FACW, or FA	
4				-		That Ale Obl, I ACW, Of I A	O(A)
5.						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	2 (B)
				_			
Sapling/Shrub Strat	tum (Plot size: 15' radiu	ıs)				Percent of Dominant Species	\$
1						That Are OBL, FACW, or FA	C:(A/B)
2							
						Prevalence Index workshee	it:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)	-	_ Total Cover		OBL species 101%	$\frac{\text{Multiply by:}}{\text{x1} = 1.01}$
Carex Vulpinoid		_/	40%	Yes	FACW	FACW species 43%	x2 = 0.86
Leersia oryzoid			35%	Yes	OBL	FAC species	x3 =
3. Bidens cernua			25%	No	OBL	FACU species	x4 =
4. Ludwigia palus	tris		25%	No	OBL	UPL species	x5 =
5. Galium tinctoriu	ım		5%	No	OBL	Column Totals: 1.44	(A) 1.87 (B)
6. Scirpus atrovire	ens		5%	No	OBL		
7. Ludwigia altern			5%	No	OBL	Prevalence Index =	B/A = 1.30
8. Persicaria maci			3%	No No	FACW		
9. Boehmeria cylii	narica		1%	No	OBL	Hydrophytic Vegetation Inc	diantoro
10. 11.				-		nydrophytic vegetation in	neators.
12.						X 1-Rapid Test for Hy	drophytic Vegetation
13.						X 2-Dominance Test i	
14.						X 3-Prevalence Index	
15.						4-Morphological Ad	aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydro	ohytic Vegetation ¹ (Explain)
18						1	
19.						¹ Indicators of hydric soil and	
20			4440/	T-1-10		be present, unless disturbed	or problematic.
			144%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radiu	ıe)				Hydrophytic	
1	- '	,				Vegetation	
2.						_	X No
				= Total Cover			
Remarks: (Include	photo numbers here or or	n a separate shee	et.)				

SOIL Sampling Point: WL-015-WET

epth	cription: (Describe to the Matrix		Re	edox Features				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 6/1	95	10Yr 6/4	5	C	PL	Clay Loam	
0 20							Olay Loaiii	
	Concentration, D=Depletio	n, RM=Redu	iced Matrix, CS=Cover	ed or Coated S	Sand Grains.			Lining, M=Matrix.
	Indicators:					Indic		blematic Hydric Soils ³ :
_ Histose	, ,			ed Matrix (S4))			t Prairie Redox (A16)
_	Epipedon (A2)		Sandy Red					Manganese Masses (F12)
	Histic (A3)		Stripped Ma					Surface (S7)
	gen Sulfide (A4)			ky Mineral (F1				Shallow Dark Surface (TF12)
	ed Layers (A5)			yed Matrix (F2)		Other	(Explain in Remarks)
2 cm N	luck (A10)		X Depleted M	atrix (F3)				
Deplet	ed Below Dark Surface (A	.11)	Redox Dark	Surface (F6)				
Thick [Dark Surface (A12)		Depleted D	ark Surface (F	7)		³ Indicators	of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		X Redox Dep	ressions (F8)			wetland	hydrology must be present,
5 cm N	lucky Peat or Peat (S3)							disturbed or problematic.
	Layer (if observed):							
Type:								
∪eptn (inches):					HVARIC		? Yes X No
marks:						Tiyunc	Soil Present	
	067					Tryunc	Sui Fleseiii	
YDROL	OGY drology Indicators:					Tiyunc	Sui Fleseiii	
YDROL etland Hy		required: ch	neck all that apply)			Tiyunc		dary Indicators (minimum of two required)
/DROL etland Hy imary Indi	drology Indicators:	required: ch		ned Leaves (B	9)	- Tryunc	Secor	dary Indicators (minimum of two required)
/DROL etland Hy imary IndiSurfac	drology Indicators: cators (minimum of one is e Water (A1)	required: ch	Water-Stair	`	9)	Tyunc	Secon	idary Indicators (minimum of two required) Surface Soil Cracks (B6)
YDROL etland Hy imary Indi Surfac High W	drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2)	s required: ch	Water-Stair X Aquatic Fau	una (B13)	,	Tyunc	Secor	idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROL etland Hy rimary Indi Surfac K High W X Satura	drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3)	: required: ch	Water-Stair X Aquatic Fau X True Aquat	una (B13) ic Plants (B14))	Tyunc	Secon	idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROL etland Hy rimary Indi Surfac High W X Satura Water	drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	required: ch	Water-Stair X Aquatic Fau X True Aquat Hydrogen S	una (B13) ic Plants (B14) Sulfide Odor (C) C1)		Secor	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROL etland Hy rimary Indi Surface High W Satura Water Sedime	drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	required: ch	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or) C1) n Living Root		Secor	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
YDROL etland Hy imary Indi Surfac High W Satura Water Sedime	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	required: ch	Water-Stair X Aquatic Fau X True Aquat Hydrogen S Oxidized RI Presence o	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or f Reduced Iror) C1) n Living Root n (C4)	s (C3)	Secor	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROL etland Hy rimary Indi Surfac High W Satura Water Sedime Drift De	drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4)	required: ch	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or f Reduced Iror Reduction in) C1) n Living Root n (C4)	s (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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YDROL etland Hy imary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De Inunda	drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imag	gery (B7)	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9)) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROL etland Hy imary Indi Surface High W Satura Water Sedime Drift De Algal N Iron De Inunda	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Su	gery (B7)	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or f Reduced Iror n Reduction in Surface (C7)) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROL etland Hy rimary Indi Surface High W Satura Water Sedime Drift De Algal N Iron De Inunda Sparse	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Su vations:	gery (B7) Irface (B8)	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remark) C1) n Living Root n (C4) Tilled Soils (0	s (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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YDROL etland Hy rimary Indi Surface K High W K Satura Water Sedime Drift De Algal N Iron De Inunda Sparse urface War vater Table aturation F	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Su vations: ter Present? Y Present? Y	gery (B7) irface (B8)	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror a Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): 0) C1) In Living Root In (C4) Tilled Soils (C	s (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROL etland Hy rimary Indi Surface X High W X Satura Water Sedime Drift De Inunda Sparse urface War /ater Table aturation Fincludes ca	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Su vations: ter Present? Y	gery (B7) Irface (B8) Yes No Yes No Yes No Yes No	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0 s): 0	(C1) In Living Root In (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Secon ————————————————————————————————————	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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YDROL etland Hy rimary Indi Surface K High W K Satura Water Sedime Drift De Algal N Iron De Inunda Sparse eld Obser urface War drater Table aturation F	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Su vations: ter Present? Y	gery (B7) Irface (B8) Yes No Yes No Yes No Yes No	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0 s): 0	(C1) In Living Root In (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Secon ————————————————————————————————————	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROL etland Hy rimary Indi Surface K High W K Satura Water Sedime Drift De Algal N Iron De Inunda Sparse eld Obser urface War drater Table aturation F	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Su vations: ter Present? Y	gery (B7) Irface (B8) Yes No Yes No Yes No Yes No	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0 s): 0	(C1) In Living Root In (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Secon ————————————————————————————————————	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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YDROL etland Hy rimary Indi Surface (High W (Satura Water Sedime Drift De Inunda Sparse eld Obser urface Wa fater Table aturation F noludes ca escribe Re	drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Su vations: ter Present? Y	gery (B7) Irface (B8) Yes No Yes No Yes No Yes No	Water-Stair X Aquatic Fat X True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iror Reduction in Surface (C7) Vell Data (D9) ain in Remarks s): N/A s): 0 s): 0	(C1) In Living Root In (C4) Tilled Soils (Cs) Wetland	s (C3) C6)	Secon ————————————————————————————————————	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar Fa	rm		City/County:	Highland		Sampling Date: <u>6/20/2018</u>
Applicant/Owner:	Open Road Renewab	les				State: OH	Sampling Point: WL-016-UPL
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	·
Landform (hillslope,	, terrace, etc.): Backs	slope			Local	relief (concave, convex, none):	None
, ,		•	1513	I ona:		,	Datum: NAD83 UTM16N
Soil Map Unit Name		00.02201				NWI classi	· -
	logic conditions on the	eite typical for this t	ime of year?	Yes	Y No.	(If no, explain in Remark	-
-	-		-	_			
Are Vegetation			No significantly d			ormal Circumstances" present?	
Are Vegetation			No naturally prob		,	ded, explain any answers in Re	*
SUMMARY OF	FINDINGS Atta			point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X			Sampled Ar	rea	
Hydric Soil Present		Yes	NoX	within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	NoX				
Remarks:							
VEGETATION	Use scientific na	ames of plants	i.				
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
_						Number of Dominant Species	
3						That Are OBL, FACW, or FA	C: 4 (A)
4							
5				T-4-1 0		Total Number of Dominant	5 (5)
				= Total Cover		Species Across All Strata:	(B)
Sanling/Shruh Strat	tum_(Plot size: 15' ra	dius)				Percent of Dominant Species	
	tum (Flot size. 13 fa					That Are OBL, FACW, or FA	
2.				-		matrico obe, intovi, oi int	(, (,))
2							
· -						Prevalence Index workshee	et:
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)				OBL species 2%	x1 = 0.02
1. Poa pratensis			20%	Yes	FAC	FACW species 43%	x2 = 0.86
2. Coleataenia rigi			20%	Yes	FACW	FAC species 40%	x3 = 1.2
3. Potentilla simple			15%	Yes	FACU	FACU species 39%	x4 = 1.56
4. Fraxinus penns	•		<u>15%</u> 15%	Yes	FACW FAC	UPL species Column Totals: 1.24	x5 = (A) 3.64 (B)
Vernonia gigan Schedonorus a			10%	Yes No	FACU	Column rotals. 1.24	(A) <u>3.64</u> (B)
7. Rubus allegher			5%	No	FACU	Prevalence Index =	B/A = 2.94
8. Dactylis glomer			5%	No	FACU	T TOVAIGHOO HIGGX	2.01
9. Agrimonia parvi			5%	No	FACW		
10. Juncus tenuis			5%	No	FAC	Hydrophytic Vegetation Inc	dicators:
11. Euthamia gram	inifolia		3%	No	FACW		
12. Scirpus atrovire	ens		2%	No	OBL		drophytic Vegetation
13. Symphyotrichui	m pilosum		2%	No	FACU	X 2-Dominance Test is	
14. Solidago altissii			2%	No	FACU	X 3-Prevalence Index	
15							aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydrop	ohytic Vegetation¹ (Explain)
18.						1 Indicators of budris soil and	wetland bydralogy must
19.						¹ Indicators of hydric soil and	
20			124%	= Total Cover		be present, unless disturbed	or problematic.
			12470	- Total Cover			
Woody Vine Stratur	m (Plot size: 30' ra	dius)				Hydrophytic	
1.	- '	<u> </u>				Vegetation	
2.						_	X No
				Total Cover			
Remarks: (Include	photo numbers here or	on a separate she	et.)				

SOIL Sampling Point: WL-016-UPL

pth ches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 5/3	90	10YR 3/6	10	С	М	Silt loam	
4-20	10YR 6/3	100					Silt loam	
	10111070						0.11.10.11.1	_
					· ——		· ——	
				_			. ——	
				_				
e: C=Cc	oncentration, D=Deple	tion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.
ic Soil In	idicators:					Indic		blematic Hydric Soils ³ :
Histosol	` '			ed Matrix (S4	ł)			t Prairie Redox (A16)
	pipedon (A2)		Sandy Red					Manganese Masses (F12)
	stic (A3)		Stripped M		4)			Surface (S7)
	en Sulfide (A4)			cky Mineral (F	,			Shallow Dark Surface (TF12)
•	d Layers (A5)			yed Matrix (F2 latrix (F3)	<u> </u>		Otner	(Explain in Remarks)
•	ick (A10) d Below Dark Surface	(Δ11)	Depleted M	ıatrıx (F3) k Surface (F6)	١			
	ark Surface (A12)	(411)		к Surrace (F6) ark Surface (F	,		3Indicators	of hydrophytic vegetation and
-	Mucky Mineral (S1)			ressions (F8)				hydrology must be present,
•	icky Peat or Peat (S3))	Redox Bep	103310113 (1 0)				disturbed or problematic.
•	ayer (if observed):							·
	ayer (ii observed):							
I Vne:								
						Hydric	Soil Present [*]	? Yes <u>No X</u>
Depth (in	OGY					Hydric	Soil Present	? Yes No X
Depth (in arks:	OGY rology Indicators:	e is required: c	heck all that apply)			Hydric		
Depth (in arks: DROLC land Hydrary Indica	OGY	e is required: c		ned Leaves (B	39)	Hydric	Secon	
DROLC land Hydronary Indicase Surface	OGY rology Indicators: ators (minimum of one	e is required: c	Water-Stair	,	39)	Hydric	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6)
DROLO land Hydinary Indica Surface	OGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)	e is required: c	Water-Stair Aquatic Far	,	,	Hydric	Secon	dary Indicators (minimum of two required)
DROLO Jand Hydinary Indica Surface High Wa Saturatio	OGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)	e is required: c	Water-Stain Aquatic Fai True Aquat	una (B13)	, 	Hydric	Secon	idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
DROLO Jand Hydinary Indica Surface High Wa Saturatic Water M	OGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)	e is required: c	Water-Stair Aquatic Far True Aquat Hydrogen S	una (B13) ic Plants (B14) C1)	-	Secon	idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLC Iand Hydinary Indica Surface High Wa Saturatio Water M Sedimer	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1)	∍ is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (0	l) C1) on Living Root	-	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
DROLC Iand Hydr mary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	e is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (0 hizospheres o	l) C1) on Living Root on (C4)	es (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
DROLC Iand Hydra Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	orology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3)	e is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror	una (B13) ic Plants (B14 Sulfide Odor (0 hizospheres o of Reduced Iro	l) C1) on Living Root on (C4)	es (C3)	Secon	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
DROLC Iand Hydromary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation	or Crust (B4) consits (B5) con Visible on Aerial Im	nagery (B7)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9)	(1) C1) on Living Roof on (C4) I Tilled Soils (es (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
DROLC Iand Hydinary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation	or Crust (B4) posits (B5)	nagery (B7)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iro n Reduction in Surface (C7)	(1) C1) on Living Roof on (C4) I Tilled Soils (es (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
DROLC tland Hydromary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation	or Crust (B4) costs (B5) con Visible on Aerial Im v Vegetated Concave	nagery (B7)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9)	(1) C1) on Living Roof on (C4) I Tilled Soils (es (C3)	Secon	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Project/Site:	Willowbrook Solar Farm			City/County:	Highland		Sampling Date: <u>6/20/2018</u>
Applicant/Owner:	Open Road Renewables					State: OH	Sampling Point: WL-016-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	, terrace, etc.): Toeslope	;			Local	relief (concave, convex, none):	Concave
Slope (%):	0% Lat:	39.02242381		Long:		33.69570536	Datum: NAD83 UTM16N
Soil Map Unit Name				J		NWI classi	· -
•	logic conditions on the site	typical for this time of v	ear?	Yes	X No.	(If no, explain in Remark	-
•				_		ormal Circumstances" present?	
Are Vegetation		, or Hydrology No	-			·	
Are Vegetation		, or Hydrology No				ded, explain any answers in Re	
SUMMARY OF	FINDINGS Attach	site map showing	sampling	g point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?				Sampled Ar	ea	
Hydric Soil Present					a Wetland?	Yes Yes	X No
Wetland Hydrology	Present?	Yes X No					
Remarks:							
VEGETATION	Use scientific nam	es of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
2			-			Number of Dominant Species	
3.				-		That Are OBL, FACW, or FA	C: 2 (A)
4		_					
5				T-1-1-0		Total Number of Dominant	(5)
			-	= Total Cover		Species Across All Strata:	(B)
Sanling/Shruh Strat	tum (Plot size: 15' radius	s)				Percent of Dominant Species	
						That Are OBL, FACW, or FA	
2.						matrico obe, i riovi, oi i ri	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		_					
						Prevalence Index workshee	et:
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)				OBL species 115%	x1 = 1.15
1. Juncus effusus			50%	Yes	OBL	FACW species	x2 =
2. Typha latifolia			30%	Yes	OBL	FAC species 15%	x3 = 0.45
3. Juncus tenuis			15%	No No	FAC	FACU species	x4 =
Schoenoplectus Leersia oryzoid	s tabernaemontani		10%	No No	OBL	UPL species	x5 =(A)
6. Epilobium color			10%	No No	OBL	Column Totals: 1.30	(A)1.6 (B)
7. Asclepias incar			5%	No	OBL	Prevalence Index =	B/A = 1.23
8.	nata			- 110	<u> </u>	T TOVAIGITOO ITIAGX	1.20
9.		_					
10.		_				Hydrophytic Vegetation Inc	dicators:
11.							
12.						X 1-Rapid Test for Hy	
13.						X 2-Dominance Test is	
14						X 3-Prevalence Index	
15							aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydrop	ohytic Vegetation ¹ (Explain)
18.						1 maissatana at budais asil and	atland budnalani, mush
				-		¹ Indicators of hydric soil and be present, unless disturbed	
20			120%	= Total Cover		be present, unless disturbed	or problematic.
			130%	- Total Cover			
Woody Vine Stratur	m (Plot size: 30' radius	e \				Hydrophytic	
	11 (1 lot 3/26. <u>00 ladia</u>	,				Vegetation	
2.							X No
		.,		= Total Cover			
Remarks: (Include	photo numbers here or on	a separate sheet.)				<u> </u>	<u> </u>

SOIL Sampling Point: WL-016-WET

epth ches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 6/2	80	10YR 3/6	20	C	M	Si Cl Lo	
4-20	10YR 8/1	70	10YR 5/6	30	С	М	Clay	
				_				
ype: C=Co	ncentration, D=Deple	tion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains	² Locati	on: PL=Pore I	Lining, M=Matrix.
dric Soil In	dicators:							olematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gley	ed Matrix (S4	4)		Coast	Prairie Redox (A16)
Histic Ep	ipedon (A2)		Sandy Red	ox (S5)			Iron-M	langanese Masses (F12)
Black His	stic (A3)		Stripped M	atrix (S6)			Dark S	urface (S7)
Hydrogei	n Sulfide (A4)		Loamy Mud	cky Mineral (F	1)		Very S	hallow Dark Surface (TF12)
Stratified	Layers (A5)		Loamy Gle	yed Matrix (F2	2)		Other	(Explain in Remarks)
2 cm Mu	ck (A10)		X Depleted M	latrix (F3)				
Depleted	l Below Dark Surface	(A11)		k Surface (F6)				
	rk Surface (A12)		Depleted D	ark Surface (F	- 7)		³ Indicators o	f hydrophytic vegetation and
	lucky Mineral (S1)		X Redox Dep	ressions (F8)				nydrology must be present,
5 cm Mu	cky Peat or Peat (S3)						unless	disturbed or problematic.
strictive La	yer (if observed):							
Type:			_					
Depth (incommarks:	ches):					Hydric	Soil Present?	Yes X No
marks:	GY					Hydric	Soil Present?	Yes X No
marks: YDROLO etland Hydr	OGY ology Indicators:					Hydric		
YDROLO etland Hydr rimary Indica	OGY ology Indicators: ators (minimum of one	: is required: c	11.77			Hydric	Second	dary Indicators (minimum of two required
YDROLO etland Hydr rimary Indica X Surface N	OGY ology Indicators: ators (minimum of one Water (A1)	s is required: c	Water-Stair	ned Leaves (B	39)	Hydric	Seconi Seconi	dary Indicators (minimum of two required Surface Soil Cracks (B6)
YDROLO etland Hydr rimary Indica X Surface \(\) X High Wa	ology Indicators: ators (minimum of one Water (A1) ter Table (A2)	e is required: c	Water-Stair X Aquatic Far	una (B13)	,	Hydric	Secon	dary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLO Setland Hydr rimary Indica X Surface V X High War X Saturatio	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3)	is required: c	Water-Stain X Aquatic Fai X True Aquat	una (B13) ic Plants (B14	· 	Hydric	Secon	dary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLO Vetland Hydr rimary Indica X Surface V X High Wa' X Saturatio Water Ma	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1)	is required: c	Water-Stair X Aquatic Far X True Aquat Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor (0	C1)		Second S	dary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROLO etland Hydr rimary Indica X Surface V X High Wa' X Saturatio Water Mi Sedimen	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2)	is required: c	Water-Stain X Aquatic Fai X True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (0 hizospheres o	() C1) on Living Roo		Second S	dary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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YDROLO Vetland Hydr rimary Indica X Surface V X High Wa' X Saturatio Water Mai Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely Vetld Observa vater Table Paturation Pre ncludes capil	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) on Visible on Aerial Im Vegetated Concave services attons: r Present? esent? ellary fringe)	nagery (B7) Surface (B8) Yes X No Yes X No	Water-Stain X Aquatic Fait X True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark s): 2 s): 0 s): 0	C1) C1) C1) C1) C1) C1) C2) C3) C4) C4) C5) C5) Wetlan	ts (C3) C6)	Second	dary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
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YDROLO Vetland Hydre Primary Indica X Surface V X High War X Saturatio Water Mar Sedimen Drift Dep Algal Mar Iron Depi Inundatio Sparsely Seld Observa Surface Water Vater Table Proportion Presence Includes capil	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) on Visible on Aerial Im Vegetated Concave services attons: r Present? esent? ellary fringe)	nagery (B7) Surface (B8) Yes X No Yes X No	Water-Stair X Aquatic Far X True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control of Reduced Iron Reduction in Surface (C7) Vell Data (D9) Idain in Remark s): 2 s): 0 s): 0	C1) C1) C1) C1) C1) C1) C2) C3) C4) C4) C5) C5) Wetlan	ts (C3) C6)	Second	dary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar	Farm		City/County:	Highland		Sampling Date: <u>6/20/2018</u>
Applicant/Owner:	Open Road Renev	wables				State: OH	Sampling Point: WL-017-UPL
Investigator(s):	BH & JJC			Secti	ion, Townsh	ip, Range:	
Landform (hillslope,	, terrace, etc.): To	peslope			Local i	relief (concave, convex, none):	Concave
•	· · · · · —	39.02151	976	I ona:		,	Datum: NAD83 UTM16N
Soil Map Unit Name		00.02101	0.0		`	NWI classi	· -
•	-	the site typical for this ti	ima of voor?	Yes	V No.		-
•	•	**	•	_		(If no, explain in Remark	
Are Vegetation		No , or Hydrology				ormal Circumstances" present?	
Are Vegetation		No , or Hydrology			,	ded, explain any answers in Re	
SUMMARY OF	FINDINGS A	ttach site map sh	owing sampling	point locat	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes	No X	Is the	Sampled Ar	ea	
Hydric Soil Present	?	Yes		within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	No X				
Remarks:							
VEGETATION -	Use scientific	c names of plants					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	,)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
						Number of Dominant Species	S
3.						That Are OBL, FACW, or FA	C: 1 (A)
4.							
5						Total Number of Dominant	
			:	= Total Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	tum (Plot size: 15	5' radius)				Percent of Dominant Species	
· -						That Are OBL, FACW, or FA	C:(A/B)
2							
						D	4.
						Prevalence Index workshee	τ:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)		- Total Cover		OBL species 10%	x1 = 0.1
Schedonorus a.		/	70%	Yes	FACU	FACW species 40%	x2 = 0.8
Carex vulpinoid			30%	Yes	FACW	FAC species 10%	x3 = 0.3
Agrostis gigante			10%	No	FACW	FACU species 87%	x4 = 3.48
Asclepias syriae			5%	No	FACU	UPL species	x5 =
5. Xanthium strum	narium		5%	No	FAC	Column Totals: 1.47	(A) 4.68 (B)
6. Solidago altissii	ima		5%	No	FACU		
7. Scirpus atrovire	ens		5%	No	OBL	Prevalence Index =	B/A = 3.18
8. Carex frankii			5%	No	OBL		
9. Trifolium prater	nse		5%	No	FACU		
10. Juncus tenuis			5%	No	FAC	Hydrophytic Vegetation Inc	dicators:
11. Symphyotrichui	m pilosum		2%	No	FACU		
12.							drophytic Vegetation
13.						2-Dominance Test is 3-Prevalence Index	
14							is ≤3.0 aptations¹ (Provide supporting
15. 16.							on a separate sheet)
17.							ohytic Vegetation ¹ (Explain)
18.				-		i robicinatio riyarop	mytte vegetation (Explain)
19.						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	
			147%	= Total Cover		process, association	or problemate.
Woody Vine Stratur	m (Plot size: 30	O' radius)				Hydrophytic	
1	- ·					Vegetation	
2.							No X
				= Total Cover			
Remarks: (Include	photo numbers here	e or on a separate shee	et.)			<u> </u>	

SOIL Sampling Point: WL-017-UPL

rofile Desc epth	cription: (Describe to the Matrix	ic acptii nee		edox Features	3		,		
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remai	rks
0-4	10YR 4/2	100	` '				Silt loam		
4-20	10YR 4/3	100					Silt loam		
. 20									
				_					
				_			· 		
				_					
						2			
, .	Concentration, D=Depleti Indicators:	on, RM=Redi	uced Matrix, CS=Cover	ed or Coated	Sand Grains.			ining, M=Matrix. lematic Hydric Soils³:	
Histoso			Sandy Gley	yed Matrix (S4	1)	muic		Prairie Redox (A16)	
	Epipedon (A2)		Sandy Red		*)			anganese Masses (F12)	
	Histic (A3)		Stripped M					urface (S7)	
	gen Sulfide (A4)			cky Mineral (F	1)			nallow Dark Surface (TF1	2)
	ed Layers (A5)			yed Matrix (F2	•			(Explain in Remarks)	
	fuck (A10)		Depleted M	•	-,				
	ed Below Dark Surface (A11)		k Surface (F6))				
	Dark Surface (A12)	,		ark Surface (Fo)	,		3Indicators of	f hydrophytic vegetation a	and
	Mucky Mineral (S1)			ressions (F8)				ydrology must be presen	
_	flucky Peat or Peat (S3)		1100000 200	700010110 (1 0)				disturbed or problematic.	-,
	Layer (if observed):								
Type:	Layer (II observed).								
marks:	inches):					Hydric	Soil Present?	Yes	No X
marks:	OGY					Hydric	Soil Present?	Yes	No X
marks: /DROL etland Hyo		s required: cl	neck all that apply)			Hydric		Yes	
Marks: **DROL** Total Hydinary India	OGY drology Indicators:	s required: cl		ned Leaves (E	39)	Hydric	Second		
TDROL etland Hydimary India Surface	OGY drology Indicators: cators (minimum of one	s required: cl		,	39)	Hydric	Second S	lary Indicators (minimum	
POROLO Surface High W	OGY drology Indicators: cators (minimum of one i	s required: cl	Water-Stai	,	,	Hydric	Second S X D	lary Indicators (minimum urface Soil Cracks (B6)	of two required)
POROLO Surface High W Saturat	OGY drology Indicators: cators (minimum of one ie Water (A1) //ater Table (A2)	s required: cl	Water-Stai Aquatic Fa True Aquat	una (B13)	, 	Hydric	Second S D	lary Indicators (minimum urface Soil Cracks (B6) irainage Patterns (B10)	of two required)
POROLO Surface High W Saturat Water I	OGY drology Indicators: cators (minimum of one if the water (A1) //ater Table (A2) tion (A3)	s required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S	una (B13) tic Plants (B14) C1)		Second S X D C C	lary Indicators (minimum ourface Soil Cracks (B6) orainage Patterns (B10) ory-Season Water Table (of two required)
DROL Surface High W Saturat Water I Sedime	OGY drology Indicators: cators (minimum of one in the water (A1) //ater Table (A2) tion (A3) Marks (B1)	s required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R	una (B13) tic Plants (B14 Sulfide Odor (l) C1) on Living Root		Second S X D C C S	lary Indicators (minimum urface Soil Cracks (B6) orainage Patterns (B10) ory-Season Water Table (crayfish Burrows (C8)	of two required) C2) al Imagery (C9)
TDROL otland Hyd imary India Surface High W Satural Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one in the water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	s required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres c	() C1) on Living Root on (C4)	s (C3)	SecondSDCSS	lary Indicators (minimum ourface Soil Cracks (B6) orainage Patterns (B10) ory-Season Water Table (crayfish Burrows (C8) aturation Visible on Aeria	of two required) C2) al Imagery (C9) s (D1)
POROL Surface High W Satural Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one in the Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	s required: cl	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence o	una (B13) tic Plants (B14 Sulfide Odor (G hizospheres conf Reduced Iro	() C1) on Living Root on (C4)	s (C3)	SecondSDCSSSS	lary Indicators (minimum ourface Soil Cracks (B6) orainage Patterns (B10) ory-Season Water Table (crayfish Burrows (C8) outuration Visible on Aeria outunted or Stressed Plants	of two required) C2) al Imagery (C9) s (D1)
TDROL otland Hyd imary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De	OGY drology Indicators: cators (minimum of one in the Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)		Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence c Recent Iron Thin Muck	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres c of Reduced Iro n Reduction in	(i) C1) on Living Root on (C4) in Tilled Soils (i	s (C3)	SecondSDCSSSS	lary Indicators (minimum furface Soil Cracks (B6) grainage Patterns (B10) gry-Season Water Table (grayfish Burrows (C8) gaturation Visible on Aeria grainted or Stressed Plants geomorphic Position (D2)	of two required) C2) al Imagery (C9) s (D1)
Marks: TOROL Stland Hyd imary India Surface High W Saturat Water I Sedime Drift De Algal W Iron De	oGY drology Indicators: cators (minimum of one in the Water (A1) drater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) drater Crust (B4) eposits (B5)	agery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V	una (B13) tic Plants (B14) Sulfide Odor (Guita in the Color of Reduced Iron Reduction in Surface (C7)	(1) C1) on Living Root on (C4) Tilled Soils (1)	s (C3)	SecondSDCSSSS	lary Indicators (minimum furface Soil Cracks (B6) grainage Patterns (B10) gry-Season Water Table (grayfish Burrows (C8) gaturation Visible on Aeria grainted or Stressed Plants geomorphic Position (D2)	of two required) C2) al Imagery (C9) s (D1)
rDROL etland Hyd imary India Surface High W Satural Water I Sedime Drift De Algal M Iron De Inunda Sparse	drology Indicators: cators (minimum of one in the Water (A1) Vater Table (A2) tion (A3) Marks (B1) tent Deposits (B2) teposits (B3) Mat or Crust (B4) teposits (B5) tion Visible on Aerial Imagely Vegetated Concave S	agery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V	una (B13) tic Plants (B14) Sulfide Odor (Gilder) hizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9)	(1) C1) on Living Root on (C4) Tilled Soils (s (C3)	SecondSDCSSSS	lary Indicators (minimum furface Soil Cracks (B6) grainage Patterns (B10) gry-Season Water Table (grayfish Burrows (C8) gaturation Visible on Aeria grainted or Stressed Plants geomorphic Position (D2)	of two required) C2) al Imagery (C9) s (D1)
YDROL etland Hye rimary Indie Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse	drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Selvations:	agery (B7) urface (B8)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V	una (B13) tic Plants (B14) Sulfide Odor (Gilder) hizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark	(1) C1) on Living Root on (C4) Tilled Soils (s (C3)	SecondSDCSSSS	lary Indicators (minimum furface Soil Cracks (B6) grainage Patterns (B10) gry-Season Water Table (grayfish Burrows (C8) gaturation Visible on Aeria grainted or Stressed Plants geomorphic Position (D2)	of two required) C2) al Imagery (C9) s (D1)
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YDROL etland Hyd imary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse	oGY drology Indicators: cators (minimum of one in the water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Servations: ter Present?	agery (B7) urface (B8) Yes No Yes No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): N/A ss): >18	(S) C1) C1) C1) C1) C1) C2) C3) C3)	s (C3)	SecondSDCSSSS	lary Indicators (minimum furface Soil Cracks (B6) grainage Patterns (B10) gry-Season Water Table (grayfish Burrows (C8) gaturation Visible on Aeria grainted or Stressed Plants geomorphic Position (D2)	of two required) C2) al Imagery (C9) s (D1)
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YDROL etland Hydrimary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse eld Observation Pencludes cal	oGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Servations: ter Present? Present?	agery (B7) urface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): N/A es): >18	C1) C1) C1) Cn Living Root C(C4) Cilled Soils (C4) C(S) C(S) C(S) C(S) C(S) C(S) C(S) C(S	s (C3) C6)	Second S X D C C S S G F	lary Indicators (minimum curface Soil Cracks (B6) drainage Patterns (B10) dry-Season Water Table (carayfish Burrows (C8) draturation Visible on Aeria drunted or Stressed Plants decomorphic Position (D2) AC-Neutral Test (D5)	of two required) C2) al Imagery (C9) as (D1)
YDROL etland Hyd imary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse	OGY drology Indicators: cators (minimum of one in the water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Servations: ter Present? Present? Present?	agery (B7) urface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): N/A es): >18	C1) C1) C1) Cn Living Root C(C4) Cilled Soils (C4) C(S) C(S) C(S) C(S) C(S) C(S) C(S) C(S	s (C3) C6)	Second S X D C C S S G F	lary Indicators (minimum curface Soil Cracks (B6) drainage Patterns (B10) dry-Season Water Table (carayfish Burrows (C8) draturation Visible on Aeria drunted or Stressed Plants decomorphic Position (D2) AC-Neutral Test (D5)	of two required) C2) al Imagery (C9) as (D1)
Marks: //DROL etland Hydimary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse eld Obser urface Wat ater Table aturation P icludes cal escribe Re	OGY drology Indicators: cators (minimum of one in the water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Servations: ter Present? Present? Present?	agery (B7) urface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): N/A es): >18	C1) C1) C1) Cn Living Root C(C4) Cilled Soils (C4) C(S) C(S) C(S) C(S) C(S) C(S) C(S) C(S	s (C3) C6)	Second S X D C C S S G F	lary Indicators (minimum curface Soil Cracks (B6) drainage Patterns (B10) dry-Season Water Table (carayfish Burrows (C8) draturation Visible on Aeria drunted or Stressed Plants decomorphic Position (D2) AC-Neutral Test (D5)	of two required) C2) al Imagery (C9) as (D1)
Marks: Political Marks: Poli	OGY drology Indicators: cators (minimum of one in the water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Servations: ter Present? Present? Present?	agery (B7) urface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): N/A es): >18	C1) C1) C1) Cn Living Root C(C4) Cilled Soils (C4) C(S) C(S) C(S) C(S) C(S) C(S) C(S) C(S	s (C3) C6)	Second S X D C C S S G F	lary Indicators (minimum curface Soil Cracks (B6) drainage Patterns (B10) dry-Season Water Table (carayfish Burrows (C8) draturation Visible on Aeria drunted or Stressed Plants decomorphic Position (D2) AC-Neutral Test (D5)	of two required) C2) al Imagery (C9) as (D1)
Marks: Mary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse Id Observirface Water Table atter Table secribe Re	OGY drology Indicators: cators (minimum of one in the water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Servations: ter Present? Present? Present?	agery (B7) urface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or W Other (Exp X Depth (inche X Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Chizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): N/A es): >18	C1) C1) C1) Cn Living Root C(C4) Cilled Soils (C4) C(S) C(S) C(S) C(S) C(S) C(S) C(S) C(S	s (C3) C6)	Second S X D C C S S G F	lary Indicators (minimum curface Soil Cracks (B6) drainage Patterns (B10) dry-Season Water Table (carayfish Burrows (C8) draturation Visible on Aeria drunted or Stressed Plants decomorphic Position (D2) AC-Neutral Test (D5)	of two required) C2) al Imagery (C9) as (D1)

Project/Site:	Willowbrook Solar Farr	n		City/County	Highland		Sampling Date: 6/20/2018
Applicant/Owner:	Open Road Renewable	es				State: OH	Sampling Point: WL-017-WET
Investigator(s):	BH & JJC			Sec	tion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Toeslo	pe			Local	relief (concave, convex, none):	Concave
Slope (%):	0% Lat:	39.02271	386	Long:	-	83.69510705	Datum: NAD83 UTM16N
Soil Map Unit Name				<u> </u>		NWI class	ification: R4SBC
Are climatic / hydro	logic conditions on the si	te typical for this ti	me of year?	Yes	X No	(If no, explain in Remark	(S.)
Are Vegetation	No , Soil No	, or Hydrology	No significantly	-		ormal Circumstances" present?	? Yes X No
Are Vegetation	No , Soil No					ded, explain any answers in Re	
-					`	nsects, important featu	*
Hydrophytic Vegeta		Yes X		-	Sampled Ar		100, 0101
Hydric Soil Present		Yes X	No No		a Wetland?		X No
Wetland Hydrology		Yes X	No No	_	a wonana.	103	<u> </u>
				=			
Remarks:							
VEGETATION	Use scientific na	mes of plants	_				
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	ot:
1							
_						Number of Dominant Specie	·S
3						That Are OBL, FACW, or FA	AC:(A)
4							
5				= Total Cover		Total Number of Dominant	3 (B)
				_= Total Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	tum (Plot size: 15' rad	ius)				Percent of Dominant Specie	s
	(let 6)26. 10 laa					That Are OBL, FACW, or FA	
2				-		, , , ,	(``,
2							
4.						Prevalence Index workshee	et:
5							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot)	250/	V	ODI	OBL species 55%	
Scirpus atrovire Carex vulpinoid			25% 25%	Yes Yes	OBL FACW	FACW species 35% FAC species	x2 = 0.7 x3 =
Leersia oryzoid			20%	Yes	OBL	FACU species 10%	x4 = 0.4
Schedonorus a			10%	No	FACU	UPL species	x5 =
5. Agrostis gigant	ea		10%	No	FACW	Column Totals: 1.00	(A) 1.65 (B)
6. Juncus effusus	1		5%	No	OBL		<u> </u>
7. Carex frankii			5%	No	OBL	Prevalence Index =	B/A = 1.65
8							
9						Hadran badla Manadadlan In	
10. 11.						Hydrophytic Vegetation Inc	alcators:
12.					-	X 1-Rapid Test for Hy	dronhytic Vegetation
13.						X 2-Dominance Test i	
14.				-		x 3-Prevalence Index	
15.				_		4-Morphological Ad	aptations ¹ (Provide supporting
16.						data in Remarks or	r on a separate sheet)
17.						Problematic Hydro	phytic Vegetation ¹ (Explain)
18							
						¹ Indicators of hydric soil and	
20				- 		be present, unless disturbed	or problematic.
			100%	= Total Cover			
Woody Vine Stratu	m (Diet eize: 20' red	ius)				Hydrophytic	
1.	iii (Flot size. <u>30 fau</u>	ius)				Vegetation	
2.						_	X No
]				= Total Cover			
Remarks: (Include	photo numbers here or	on a separate she	et.)				

SOIL Sampling Point: WL-017-WET

ofile Description: (Descri	trix		edox Features			,	
ches) Color (moi		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20 10YR 5/2		10YR 3/6	10	С	M	Si Cl Lo	
pe: C=Concentration, D=	Depletion, RM=Rec	duced Matrix, CS=Cover	ed or Coated S	Sand Grains.			Lining, M=Matrix.
ric Soil Indicators:					Indic		blematic Hydric Soils ³ :
Histosol (A1)			ed Matrix (S4	.)			Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Red					Manganese Masses (F12)
Black Histic (A3)		Stripped M					Surface (S7)
_ Hydrogen Sulfide (A4)			cky Mineral (F				Shallow Dark Surface (TF12)
Stratified Layers (A5)			yed Matrix (F2	2)		Other	(Explain in Remarks)
2 cm Muck (A10)		X Depleted M					
_ Depleted Below Dark Su	, ,		k Surface (F6)			•	
Thick Dark Surface (A12			ark Surface (F	- 7)			of hydrophytic vegetation and
Sandy Mucky Mineral (S	•	Redox Dep	ressions (F8)				hydrology must be present,
5 cm Mucky Peat or Pea	at (S3)					unless	disturbed or problematic.
strictive Layer (if observe	ed):						
Type: Depth (inches):		_				Soil Present	? Yes X No
narks:							
'DROLOGY Itland Hydrology Indicato							
'DROLOGY tland Hydrology Indicato		check all that apply)				Secon	dary Indicators (minimum of two required)
DROLOGY			ned Leaves (B	39)			dary Indicators (minimum of two required) Surface Soil Cracks (B6)
DROLOGY tland Hydrology Indicato mary Indicators (minimum			,	59)			·
TDROLOGY tland Hydrology Indicato mary Indicators (minimum _ Surface Water (A1)		Water-Stain Aquatic Fai True Aquat	una (B13) ic Plants (B14)		X	Surface Soil Cracks (B6)
TDROLOGY tland Hydrology Indicato mary Indicators (minimum Surface Water (A1) High Water Table (A2)		Water-Stain Aquatic Fai True Aquat	una (B13))		X	Surface Soil Cracks (B6) Drainage Patterns (B10)
TDROLOGY Itland Hydrology Indicato mary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	of one is required: o	Water-Stair Aquatic Far True Aquat Hydrogen S	una (B13) ic Plants (B14) C1)	s (C3)	<u>X</u>	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
TDROLOGY Interpolation of the state of the	of one is required: o	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (0	.) C1) In Living Root	s (C3)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
triand Hydrology Indicator imary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	of one is required: o	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence of	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o	c) C1) In Living Root In (C4)		x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
TDROLOGY Itland Hydrology Indicato mary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	of one is required: o	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iro	c) C1) In Living Root In (C4)		X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
TDROLOGY tland Hydrology Indicato mary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	of one is required: o	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iron n Reduction in	.) C1) In Living Root In (C4) Tilled Soils (G		X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
TDROLOGY Itland Hydrology Indicato mary Indicators (minimum 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)	of one is required: o	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iron n Reduction in Surface (C7)	c) C1) on Living Root n (C4) Tilled Soils (G		X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Market Market (B4) In Deposits (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cor Id Observations: Interest of Market (B4) Interest of Market (B	erial Imagery (B7) hocave Surface (B8)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V Other (Exp	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iron n Reduction in Surface (C7) Vell Data (D9) lain in Remark s): N/A	c) C1) on Living Root n (C4) Tilled Soils (G		X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
rDROLOGY Internal Hydrology Indicator Imary Indicators (minimum 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 Ae Sparsely Vegetated Core Ind Observations: Inface Water Present? Internal Hydrology Indicator Inface Water Present?	erial Imagery (B7) cave Surface (B8) Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iron n Reduction in Surface (C7) Vell Data (D9) lain in Remark s): N/A s): >18	c) C1) C1) In Living Root In (C4) Tilled Soils (G	C6)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
rDROLOGY etland Hydrology Indicato imary Indicators (minimum 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 Ae Sparsely Vegetated Core etla Observations: irface Water Present? ater Table Present? cludes capillary fringe)	erial Imagery (B7) acave Surface (B8) Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres o of Reduced Iron n Reduction in Surface (C7) Vell Data (D9) lain in Remark s): N/A s): >18 s): >18	(S) C1) C1) In Living Root In (C4) Tilled Soils (Gas) Wetland	C6)	X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
rDROLOGY Internal Hydrology Indicator mary Indicators (minimum 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 Ae Sparsely Vegetated Cor Ind Observations: Ifface Water Present? Indeposits (B5) Internal Hydrology Indeposits (B5) Internal Hydrology Intern	erial Imagery (B7) acave Surface (B8) Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control of Reduced Iron of Reduction in Surface (C7) Vell Data (D9) Iain in Remark s): N/A s): >18 s): >18	(S) C1) C1) In Living Root In (C4) Tilled Soils (Gas) Wetland	C6)	X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
rDROLOGY Internal Hydrology Indicator mary Indicators (minimum 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 Ae Sparsely Vegetated Cor Ind Observations: Ifface Water Present? Indeposits (B5) Internal Hydrology Indeposits (B5) Internal Hydrology Intern	erial Imagery (B7) acave Surface (B8) Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control of Reduced Iron of Reduction in Surface (C7) Vell Data (D9) Iain in Remark s): N/A s): >18 s): >18	(S) C1) C1) In Living Root In (C4) Tilled Soils (Gas) Wetland	C6)	X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Moreoff Properties of the Control of	erial Imagery (B7) acave Surface (B8) Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control of Reduced Iron of Reduction in Surface (C7) Vell Data (D9) Iain in Remark s): N/A s): >18 s): >18	(S) C1) C1) In Living Root In (C4) Tilled Soils (Gas) Wetland	C6)	X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Marking of the control of the contro	erial Imagery (B7) acave Surface (B8) Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expi	una (B13) ic Plants (B14) Sulfide Odor (Control of Reduced Iron of Reduction in Surface (C7) Vell Data (D9) Iain in Remark s): N/A s): >18 s): >18	(S) C1) C1) In Living Root In (C4) Tilled Soils (Gas) Wetland	C6)	X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	Willowbrook Solar Farm	1		City/County:	Highland		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewable	s				State: OH	Sampling Point: WL-018/9-UPL
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Backslo	ppe			Local	relief (concave, convex, none):	None
Slope (%):	1% Lat:	39.01936	359	Long:	-8	83.69740072	Datum: NAD83 UTM16N
Soil Map Unit Name				J		NWI class	· -
•	logic conditions on the sit	e typical for this tir	me of year?	Vec	X No	(If no, explain in Remark	-
-	_		-	_		ormal Circumstances" present?	
Are Vegetation	No , Soil No					·	
Are Vegetation	No , Soil No				,	ded, explain any answers in Re	*
SUMMARY OF	FINDINGS Attacl	1 site map sho	owing sampling	point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No		Sampled Ar		
Hydric Soil Present		Yes X		within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	NoX				
Remarks:							
VEGETATION	Use scientific nai	mes of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
0						Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	C:(A)
4				-			
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Conling/Chruh Ctro	tum (Diet eize: 15' radi					Darsont of Dominant Charles	
	tum (Plot size: 15' radi					Percent of Dominant Species That Are OBL, FACW, or FA	
2.						Illat Ale OBL, I ACVV, OI I A	C(A/B)
2							
						Prevalence Index workshee	et:
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	t size: 5' radius	_)				OBL species	x1 =
1. Agrostis gigant	ea		30%	Yes	FACW	FACW species 60%	x2 = 1.2
2. Solidago altissi	ima		15%	Yes	FACU	FAC species 21%	x3 = 0.63
3. Juncus margina	atus		10%	Yes	FACW	FACU species 40%	x4 = 1.6
4. Juncus tenuis			10%	Yes	FAC	UPL species	x5 =
5. Rubus allegher			10%	Yes	FACU	Column Totals: 1.21	(A) <u>3.43</u> (B)
6. Carex vulpinoid			<u>10%</u> 10%	Yes Yes	FACW	Prevalence Index =	B/A = 2.83
Carex granular Andropogon vir			5%	No	FACU	Prevalence index =	D/A - 2.03
9. Eupatorium ser	-		5%	No	FAC		
10. Vernonia gigan			5%	No	FAC	Hydrophytic Vegetation Inc	dicators:
11. Phleum pratens			5%	No	FACU	, a. op, a.o rogotation in	
12. Solanum caroli			4%	No	FACU	1-Rapid Test for Hy	drophytic Vegetation
13. Ambrosia arten			1%	No	FACU	X 2-Dominance Test i	
14. Apocynum can	nabinum		1%	No	FAC	X 3-Prevalence Index	is $\leq 3.0^{1}$
15.						4-Morphological Ad	aptations ¹ (Provide supporting
16				-		data in Remarks or	on a separate sheet)
17.						Problematic Hydro	ohytic Vegetation¹ (Explain)
18							
19						¹ Indicators of hydric soil and	
20						be present, unless disturbed	or problematic.
			121%	= Total Cover			
M/	(Dist size 00) di					Uhadaa ahada	
Woody Vine Stratu	- ·	<u>us</u>)				Hydrophytic	
1						Vegetation	Y No
2				= Total Cover		Present? Yes	X No
				- Total Covel			
Remarks: (Include	photo numbers here or o	n a separate shee	t.)			1	
, inolado	,	parato onto	,				
1							

SOIL Sampling Point: WL-018/9-UPL

Profile Desc	ription: (Describe to	the depth ne	eded to document the	indicator or c	onfirm the	absence c	of indicators.)	
Depth	Matrix		Re	dox Features			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 4/2	95	10YR 4/4	5	С	М	Silt loam	
6-20	10YR 5/2	98	10YR 4/4	2	C	М	Silt loam	
0 20	10111 0/2		1011(4/4			171	Circioani	
¹ Type: C=C	Concentration, D=Deple	tion, RM=Red	uced Matrix, CS=Cover	ed or Coated S	Sand Grains	² Locat	ion: PL=Pore Li	ining, M=Matrix.
Hydric Soil I	Indicators:					Indic	ators for Probl	lematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy Gley	ed Matrix (S4))		Coast I	Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Red	ox (S5)			Iron-Ma	anganese Masses (F12)
Black H	Histic (A3)		Stripped Ma	atrix (S6)			Dark Su	urface (S7)
—— Hydrog	en Sulfide (A4)		Loamy Muc	ky Mineral (F1)		Very Sh	nallow Dark Surface (TF12)
Stratifie	ed Layers (A5)		Loamy Gley	ed Matrix (F2))		Other ((Explain in Remarks)
2 cm M	luck (A10)		X Depleted M	atrix (F3)				
	ed Below Dark Surface	(A11)	Redox Dark	Surface (F6)				
	Dark Surface (A12)	,		ark Surface (F	7)		³ Indicators of	f hydrophytic vegetation and
	Mucky Mineral (S1)			ressions (F8)	,			ydrology must be present,
	lucky Peat or Peat (S3))		(, ,				disturbed or problematic.
	· , ,							'
	_ayer (if observed):							
Type:	to the set		-			I I and all a	0 - 11 D 40	V V N-
Depth (i	inches):		•			Hydric	Soil Present?	Yes X No
HYDROL								
-	drology Indicators:	io roquirod: o	hook all that annly)				Cocond	lary Indicators (minimum of two required)
	cators (minimum of one	e is required. C			2)			, , , , , , , , , , , , , , , , , , , ,
	e Water (A1)			ned Leaves (B	9)			surface Soil Cracks (B6)
	/ater Table (A2)		Aquatic Fau	, ,				Prainage Patterns (B10)
	tion (A3)			ic Plants (B14)				Pry-Season Water Table (C2)
	Marks (B1)			Sulfide Odor (C		(00)		crayfish Burrows (C8)
	ent Deposits (B2)			nizospheres or	-	ts (C3)		raturation Visible on Aerial Imagery (C9)
	eposits (B3)			f Reduced Iror	` ,	0.01		itunted or Stressed Plants (D1)
	lat or Crust (B4)			Reduction in	Tilled Soils (C6)		Geomorphic Position (D2)
	eposits (B5)			Surface (C7)			<u>X</u> F	AC-Neutral Test (D5)
	tion Visible on Aerial In	. , ,		/ell Data (D9)				
Sparse	ly Vegetated Concave	Surface (B8)	Other (Expl	ain in Remark	s)			
Field Observ	vations:							
Surface Wat	er Present?	Yes No	X Depth (inche	s): N/A				
Water Table	Present?	Yes No	X Depth (inche	s): >18				
Saturation P	resent?	Yes No	X Depth (inche	s): >18	Wetlan	d Hydrolo	gy Present?	Yes No X
(includes car	pillary fringe)							
Describe Re	corded Data (stream g	auge, monitori	ing well, aerial photos, p	revious inspec	ctions), if ava	ilable:		
Remarks:								

Project/Site:	Willowbrook Solar Farm			City/County:	Brown		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewables	3				State: OH	Sampling Point: WL-018-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	, terrace, etc.): Summit					relief (concave, convex, none):	None
•	· · · · —		-86	I ona:		-83.6986183	Datum: NAD83 UTM16N
Soil Map Unit Name		00.010101				NWI class	•
	logic conditions on the site	tunical for this tin	as of year?	Vaa	X No		
-	-		-	-		(If no, explain in Remark	
Are Vegetation	No , Soil No	_				ormal Circumstances" present?	
Are Vegetation	No , Soil No	, or Hydrology _	No naturally pro	blematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach	site map sho	wing sampling	g point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No	Is the	Sampled Ar	ea	
Hydric Soil Present	?	Yes X	No	within	a Wetland?	Yes	X No
Wetland Hydrology	Present?	Yes X	No	-			
Remarks:							
VEGETATION -	Use scientific nan	nes of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover	Species?	Status	Dominance Test workshee	t:
1.		•		<u> </u>			
•						Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	.C: 3 (A)
4.							
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	tum (Plot size: 15' radiu)				Percent of Dominant Species	
				<u> </u>		That Are OBL, FACW, or FA	.C: 75% (A/B)
2							
						Books I was a lood on the day	
						Prevalence Index workshee	JT:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)		- Total Cover		OBL species 17%	x1 = 0.17
Juncus tenuis	. SIZE. J Taulus)	20%	Yes	FAC	FACW species 35%	$x^{2} = \frac{0.17}{0.7}$
Juncus margina	atus		20%	Yes	FACW	FAC species 50%	x3 = 1.5
Schedonorus a.			15%	Yes	FACU	FACU species 15%	x4 = 0.6
4. Juncus effusus			15%	Yes	OBL	UPL species 1%	x5 = 0.05
5. Vernonia gigan	tea		10%	No	FAC	Column Totals: 1.18	(A) 3.02 (B)
6. Poa pratensis			10%	No	FAC		
7. Eupatorium ser	rotinum		10%	No	FAC	Prevalence Index =	B/A = 2.56
8. Agrostis gigante	ea		10%	No	FACW		
9. Carex vulpinoid			5%	No	FACW		
10. Asclepias incar			1%	No	OBL	Hydrophytic Vegetation Inc	dicators:
11. Scirpus atrovire			1%	No	OBL		
12. Asclepias longii	folia		1%	No	UPL		drophytic Vegetation
13.				· ——		X 2-Dominance Test i X 3-Prevalence Index	
14				· 			aptations ¹ (Provide supporting
16.				-			on a separate sheet)
17.							phytic Vegetation ¹ (Explain)
18.							my to regeration (Explain)
19.				· ——		¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	
			118%	= Total Cover		process, amood alotarood	o. p. oz.oauc.
Woody Vine Stratur	m (Plot size: 30' radiu	s)				Hydrophytic	
1.		·				Vegetation	
2.						-	XNo
				= Total Cover			
Remarks: (Include	photo numbers here or or	a separate sheet	<u> </u>				

SOIL Sampling Point: WL-018-WET

	ription: (Describe to	the depth nee	ded to document the	indicator or c	onfirm the a	bsence o	of indicators.)	
Depth	Matrix		Re	edox Features			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 5/2	90	10YR 5/4	10	С	М	Sily loam	
3-20	10YR 7/2	85	10YR 5/4	15	С	М	Si Cl Lo	
				_				
¹ Type: C=C	oncentration, D=Deplet	tion, RM=Redu	iced Matrix, CS=Cover	ed or Coated S	Sand Grains.	² Locati	ion: PL=Pore L	ining, M=Matrix.
Hydric Soil I	ndicators:					Indic	ators for Probl	ematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy Gley	ed Matrix (S4))		Coast	Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Red	ox (S5)			Iron-Ma	anganese Masses (F12)
Black H	listic (A3)		Stripped Ma	atrix (S6)			Dark Su	urface (S7)
Hydrog	en Sulfide (A4)		Loamy Mud	ky Mineral (F	1)		Very Sh	nallow Dark Surface (TF12)
Stratifie	ed Layers (A5)		Loamy Gley	yed Matrix (F2)		Other (Explain in Remarks)
2 cm M	luck (A10)		X Depleted M	atrix (F3)				
Deplete	ed Below Dark Surface	(A11)	Redox Dark	Surface (F6)				
Thick D	ark Surface (A12)		Depleted D	ark Surface (F	7)		³ Indicators of	hydrophytic vegetation and
Sandy I	Mucky Mineral (S1)		Redox Dep	ressions (F8)			wetland h	ydrology must be present,
5 cm M	lucky Peat or Peat (S3)						unless o	listurbed or problematic.
Restrictive L	ayer (if observed):							
Type:	• • •							
Depth (i	nches):					Hydric	Soil Present?	Yes X No
HYDROL								
Wetland Hyd	drology Indicators:							
Wetland Hyd Primary Indic	drology Indicators: cators (minimum of one	is required: ch					_	ary Indicators (minimum of two required)
Primary Indic	drology Indicators: cators (minimum of one e Water (A1)	is required: ch	Water-Stair	ned Leaves (B	9)		S	urface Soil Cracks (B6)
Primary Indic	drology Indicators: cators (minimum of one e Water (A1) dater Table (A2)	e is required: ch	Water-Stair Aquatic Fau	una (B13)	,		S X D	urface Soil Cracks (B6) rainage Patterns (B10)
Primary Indic Surface High W Saturati	drology Indicators: cators (minimum of one e Water (A1) dater Table (A2) dion (A3)	is required: ch	Water-Stair Aquatic Fau True Aquat	una (B13) ic Plants (B14))		X D	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2)
Primary Indic Surface High W Saturati Water M	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) ion (A3) Marks (B1)	is required: ch	Water-Stair Aquatic Fau True Aquat Hydrogen S	una (B13) ic Plants (B14) Sulfide Odor (C) C1)	(00)	X D X C	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8)
Primary Indic Surface High W Saturati Water M Sedime	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	is required: ch	Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres o) C1) n Living Roof	es (C3)	X D X C S	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
Primary Indic Surface High W Saturati Water N Sedime Drift De	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	is required: ch	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o	una (B13) ic Plants (B14) Sulfide Odor (Chizospheres of f Reduced Iron) C1) n Living Root n (C4)	, ,	X D X C X C S S	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1)
Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M	drology Indicators: cators (minimum of one e Water (A1) rater Table (A2) rion (A3) Marks (B1) ent Deposits (B2) reposits (B3) lat or Crust (B4)	is required: ch	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres of f Reduced Iron Reduction in) C1) n Living Root n (C4)	, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De	drology Indicators: cators (minimum of one e Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5)		Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres of f Reduced Iron I Reduction in Surface (C7)) C1) n Living Root n (C4)	, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat	drology Indicators: cators (minimum of one e Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im	nagery (B7)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9)) n Living Roof n (C4) Tilled Soils (, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat	drology Indicators: cators (minimum of one e Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5)	nagery (B7)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres of f Reduced Iron I Reduction in Surface (C7)) n Living Roof n (C4) Tilled Soils (, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave S	nagery (B7)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9)) n Living Roof n (C4) Tilled Soils (, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) fent Deposits (B2) feposits (B3) flat or Crust (B4) flat or Visible on Aerial Im fly Vegetated Concave S functions:	nagery (B7) Surface (B8)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark) n Living Roof n (C4) Tilled Soils (, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) fent Deposits (B2) feposits (B3) flat or Crust (B4) flat or Visible on Aerial Im fly Vegetated Concave solutions: er Present?	nagery (B7) Surface (B8) Yes No	Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Sulfide Odor (Chizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A) n Living Roof n (C4) Tilled Soils (, ,	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water	drology Indicators: cators (minimum of one e Water (A1) later Table (A2) lion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave s ly Vegetated? Present?	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18) (21) In Living Roof In (C4) Tilled Soils (C6)	X D X C S S X G	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) reomorphic Position (D2)
Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table	drology Indicators: cators (minimum of one a Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave s vations: er Present? Present?	nagery (B7) Surface (B8) Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18) (21) In Living Roof In (C4) Tilled Soils (C6)	X D X C S S X G X F	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) recomorphic Position (D2) AC-Neutral Test (D5)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators: cators (minimum of one a Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave s vations: er Present? Present?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18) (21) (21) (21) (21) (24) (24) (25) (26) (26) (27) (27) (27) (27) (27) (27) (27) (27	C6)	X D X C S S X G X F	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) recomorphic Position (D2) AC-Neutral Test (D5)
Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave s vations: er Present? Present? resent?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18) (21) (21) (21) (21) (24) (24) (25) (26) (26) (27) (27) (27) (27) (27) (27) (27) (27	C6)	X D X C S S X G X F	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) recomorphic Position (D2) AC-Neutral Test (D5)
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Wetland Hyde Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Wate Water Table Saturation Pr (includes cap	drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Im ly Vegetated Concave s vations: er Present? Present? resent?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (C hizospheres or f Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18) (21) (21) (21) (21) (24) (24) (25) (26) (26) (27) (27) (27) (27) (27) (27) (27) (27	C6)	X D X C S S X G X F	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) recomorphic Position (D2) AC-Neutral Test (D5)

Project/Site:	Willowbrook Solar Farm	1		City/County:	Brown		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewable	s				State: OH	Sampling Point: WL-019-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	, terrace, etc.): Toeslop	e			Local	relief (concave, convex, none):	Concave
Slope (%):	0% Lat:	39.0186193	37	Long:	-8	83.69524753	Datum: NAD83 UTM16N
Soil Map Unit Name				J		NWI class	
	logic conditions on the sit	e typical for this tim	e of year?	Vec	X No	(If no, explain in Remark	
-	-		-	_		 ` ` `	
Are Vegetation	No , Soil No					ormal Circumstances" present?	
Are Vegetation	No , Soil No					ded, explain any answers in Re	
SUMMARY OF	FINDINGS Attach	n site map sho	wing sampling	point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No		Sampled Ar	ea	
Hydric Soil Present		Yes X	No	within	a Wetland?	Yes Yes	X No
Wetland Hydrology	Present?	Yes X	No				
Remarks:							
VEGETATION	Use scientific nar	nes of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
2						Number of Dominant Specie	
3.				-		That Are OBL, FACW, or FA	AC: 1 (A)
4						T	
5				- Tatal Causa		Total Number of Dominant	4 (D)
				= Total Cover		Species Across All Strata:	1 (B)
Sanling/Shruh Strat	tum_(Plot size: 15' radio	us)				Percent of Dominant Species	e
	(1 lot 3/26. 10 radio					That Are OBL, FACW, or FA	
2.							(15)
						Prevalence Index workshee	et:
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)				OBL species 30%	x1 = 0.3
1. Carex vulpinoio			90%	Yes	FACW	FACW species 110%	
2. Scirpus atrovire			30%	No	OBL	FAC species 5%	x3 = 0.15
3. Agrostis gigante			20% 10%	No	FACW	FACU species 10%	x4 = 0.4
Schedonorus a. Asclepias longii			5%	No No	FACU UPL	UPL species 5% Column Totals: 1.60	x5 = 0.25 (A) 3.3 (B)
Asciepias longil Vernonia gigani			5%	No	FAC	Column Totals. 1.00	(A)(B)
7.	ica			110	TAO	Prevalence Index =	B/A = 2.06
8.				·			
9.							
10.				<u> </u>		Hydrophytic Vegetation Inc	dicators:
11.							
12.						X 1-Rapid Test for Hy	
13.						X 2-Dominance Test i	
14				-		X 3-Prevalence Index	
15							aptations ¹ (Provide supporting
16.							on a separate sheet)
17				-		Problematic Hydrop	phytic Vegetation ¹ (Explain)
18. 19.						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	
20			160%	= Total Cover		be present, unless disturbed	or problematic.
			10070	- Total Govel			
Woody Vine Stratur	m (Plot size: 30' radii	us)				Hydrophytic	
	_ (Vegetation	
2.				·			X No
				= Total Cover			
Remarks: (Include	photo numbers here or o	n a separate sheet.)				

SOIL Sampling Point: WL-019-WET

epth ches)	Matrix Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 5/2	80	10YR 4/6	20	С	M	Sily loam	
7-20	10YR 7/1	85	10YR 4/6	15		M	Si Cl Lo	
7-20	10110 1/1	- 00	10111 4/0			IVI	31 CI LU	
					· ——			
				_				
				_				
(DO: C=Co)	neentration D=Deplet	tion DM=Dod	used Matrix CS=Cover		Cond Crains	21 appti	ion: DI =Doro	Lining M-Motrix
ric Soil Inc		IIOII, KIVI–Keu	uced Matrix, CS=Cover	eu or Coaleu	Saliu Glailis.			Lining, M=Matrix. blematic Hydric Soils ³ :
Histosol (Sandy Glev	ed Matrix (S4	1)	maic		t Prairie Redox (A16)
_	ipedon (A2)		Sandy Red	,	• /			Manganese Masses (F12)
Black His	. , ,		Stripped Ma					Surface (S7)
	n Sulfide (A4)			ky Mineral (F	1)			Shallow Dark Surface (TF12)
Stratified	Layers (A5)		Loamy Gle	yed Matrix (F2	2)			r (Explain in Remarks)
2 cm Mu	ck (A10)		X Depleted M	atrix (F3)				•
Depleted	Below Dark Surface	(A11)	Redox Dark	Surface (F6))			
Thick Da	rk Surface (A12)		Depleted D	ark Surface (F	F7)		³ Indicators	of hydrophytic vegetation and
	ucky Mineral (S1)		X Redox Dep	ressions (F8)			wetland	hydrology must be present,
5 cm Mud	cky Peat or Peat (S3)						unless	disturbed or problematic.
strictive La	yer (if observed):							
_								
Type:								
Depth (inc	ches):		-			Hydric	Soil Present	? Yes <u>X</u> No
Depth (inconarks:	GY		-			Hydric	Soil Present	? Yes <u>X</u> No
Depth (incomparison of the comparison of the com	GY ology Indicators:	io ropuirod.	hook all that apply)			Hydric		
Depth (inconnarks: DROLO Stland Hydromary Indica	GY ology Indicators: tors (minimum of one	is required: c		and Longo (F	20)	Hydric		ndary Indicators (minimum of two required)
Depth (inconarks: DROLO Stland Hydromary Indicates Surface N	GY ology Indicators: tors (minimum of one Water (A1)	is required: c	Water-Stair	ned Leaves (E	39)	Hydric	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
Depth (inconarks: DROLO Itland Hydromary Indica Surface V High Wat	GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2)	is required: c	Water-Stair Aquatic Fat	una (B13)	,	Hydric	Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
Depth (inconarks: TDROLO Itland Hydro mary Indica Surface V High Wat Saturatio	GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2) n (A3)	is required: c	Water-Stair Aquatic Fat True Aquat	una (B13) ic Plants (B14	· •)	Hydric	Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inconarks: Depth (incona	GY ology Indicators: tors (minimum of one Nater (A1) ter Table (A2) n (A3) arks (B1)	is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor () C1)		Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inconarks: DROLO Stland Hydro Mary Indica Surface V High Wat Saturatio Water Ma Sedimen	GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2)	is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (G hizospheres c	l) C1) on Living Roo		Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Depth (incomarks: TDROLO Etland Hydro imary Indica Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)	is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o	una (B13) ic Plants (B14 Sulfide Odor (G hizospheres of f Reduced Iro	l) C1) on Living Roo on (C4)	ts (C3)	Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Depth (incomparison of the comparison of the com	GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2)	is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o	una (B13) ic Plants (B14 Sulfide Odor (G hizospheres c	l) C1) on Living Roo on (C4)	ts (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Depth (incomparison of the comparison of the com	GY ology Indicators: tors (minimum of one Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck	una (B13) ic Plants (B14 Sulfide Odor (G hizospheres c f Reduced Iro I Reduction in	l) C1) on Living Roo on (C4) r Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (inconnarks: TDROLO Itland Hydro Mary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dept Algal Mat Iron Dept Inundation	ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	nagery (B7)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (General Procession of Reduced Iron Reduction in Surface (C7)	L) C1) on Living Room on (C4) Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (incomarks: TDROLO etland Hydro imary Indica Surface V High Water Ma Sediment Drift Depto Algal Mat Iron Depto Inundatio Sparsely	GY ology Indicators: tors (minimum of one Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Im Vegetated Concave S	nagery (B7)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14) Gulfide Odor (Gile) in Reduced Iro I Reduction in Surface (C7) Vell Data (D9)	L) C1) on Living Room on (C4) Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (incomarks: TDROLO etland Hydro imary Indica Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely	ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Im Vegetated Concave s titions:	nagery (B7) Surface (B8)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Ginizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark	L) C1) on Living Room on (C4) Tilled Soils (ts (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Project/Site:	Willowbrook Solar Farm	1		City/Cou	ınty: Highland		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewable	S				State: OH	Sampling Point: WL-020/1-UPL
Investigator(s):	BH & JJC				Section, Townsh	ip, Range:	
Landform (hillslope,	, terrace, etc.): Summit				Local	relief (concave, convex, none):	None
Slope (%):	0% Lat:	39.01604	646	Long:		83.69241703	Datum: NAD83 UTM16N
Soil Map Unit Name						NWI class	ification: N/A
Are climatic / hydrol	logic conditions on the sit	e typical for this ti	me of year?	Y	es X No	(If no, explain in Remark	(S.)
Are Vegetation	No , Soil No	, or Hydrology	No significa			ormal Circumstances" present?	
Are Vegetation	No , Soil No			-		ded, explain any answers in Re	
_				-	,	nsects, important featur	*
Hydrophytic Vegeta		Yes X			the Sampled Ar		00, 0101
Hydric Soil Present		Yes X	No No	is	thin a Wetland?		No X
Wetland Hydrology		Yes	No X				<u> </u>
Remarks:							
itemarks.							
VEGETATION -	Use scientific na	nes of plants	•				
		•	Abso	olute Domina	nt Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Co	over Species	? Status	Dominance Test workshee	t:
1. Carya ovata			60	% Yes	FACU		
2. Quercus alba			40	% Yes	FACU	Number of Dominant Specie	
3						That Are OBL, FACW, or FA	AC:6 (A)
5.						Total Number of Dominant	
J			100)% = Total Co	ver	Species Across All Strata:	9 (B)
							(-/
Sapling/Shrub Strat	tum (Plot size: 15' radi	us)				Percent of Dominant Species	s
1. Rosa multiflora			10	% Yes	FACU	That Are OBL, FACW, or FA	AC: 67% (A/B)
2							
						Prevalence Index workshee	et:
5				% = Total Co	ver	Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)			VOI	OBL species 10%	x1 = 0.1
1. Poa Pratensis	<u> </u>	_'	20	% Yes	FAC	FACW species 40%	x2 = 0.8
2. Leersia virginica	а		15	% Yes	FACW	FAC species 40%	x3 = 1.2
3. Viola sororia			10		FAC	FACU species 120%	x4 = 4.8
4. Pilea pumila			10		FACW	UPL species	x5 =
5. Symphyotrichui					FACW	Column Totals: 2.10	(A) <u>6.9</u> (B)
Persicaria hydra Impatiens cape			<u>10</u>		OBL FACW	Prevalence Index =	B/A = 3.29
8. Sanicula odoras			59		FAC	i revalence index =	D/A = 3.29
Circaea canade			59		FACU		
10. Ranunculus his	spidus		59	% No	FAC	Hydrophytic Vegetation In	dicators:
11. Schedonorus a	rundinaceus		59	% No	FACU		
12							drophytic Vegetation
13.						X 2-Dominance Test i	
14.						3-Prevalence Index	aptations ¹ (Provide supporting
16.							on a separate sheet)
17.							phytic Vegetation ¹ (Explain)
18.						— ′ ′	, , , , , , , , , , , , , , , , , , , ,
19.						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	or problematic.
			100)% = Total Co	ver		
Woody Vine Stratur	- · — —	us)				Hydrophytic	
1				· ·		Vegetation Present? Yes	V No
2				= Total Co	ver	riesent: 168	X No
				. 5141 00			
Remarks: (Include	photo numbers here or o	n a separate shee	et.)				

SOIL Sampling Point: WL-020/1-UPL

epth	ription: (Describe to Matrix			edox Features	;		•	
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/2	100					Loam	
4-20	10YR 7/2	90	10YR 4/6	10		M	Silt loam	
. 20								
				_				
				_				
				_				
				_				
						2	 ;	
	oncentration, D=Deple	etion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.			ining, M=Matrix. Ilematic Hydric Soils³:
Histoso			Sandy Gley	yed Matrix (S4	1)	muic		Prairie Redox (A16)
_	Epipedon (A2)		Sandy Red	,	7)			langanese Masses (F12)
	listic (A3)		Stripped M					urface (S7)
	en Sulfide (A4)			cky Mineral (F	1)			hallow Dark Surface (TF12)
	ed Layers (A5)			yed Matrix (F2				(Explain in Remarks)
	luck (A10)		X Depleted M	•	,			
_	ed Below Dark Surface	(A11)		k Surface (F6))			
	Park Surface (A12)	· · · · /		ark Surface (F			³ Indicators o	f hydrophytic vegetation and
	Mucky Mineral (S1)			ressions (F8)				nydrology must be present,
	lucky Peat or Peat (S3)						disturbed or problematic.
	ayer (if observed):	,						·
	ayer (ii observed):							
Type: _ Depth (in marks:	nches):					Hydric	Soil Present?	Yes X No
Depth (in			-			Hydric	Soil Present?	Yes X No
Depth (in narks:	OGY drology Indicators:					Hydric		
Depth (in narks: DROL(etland Hyde) mary Indice	OGY drology Indicators: cators (minimum of one	e is required: c				Hydric	Second	dary Indicators (minimum of two required)
Depth (in narks: DROLC tland Hyde mary Indication Surface	OGY drology Indicators: cators (minimum of one water (A1)	e is required: c	Water-Stai	ned Leaves (E	39)	Hydric	Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6)
Depth (in narks: DROLO Itland Hydelimary Indice Surface High Wa	OGY drology Indicators: cators (minimum of one Water (A1) drater Table (A2)	e is required: c	Water-Stai	una (B13)	,	Hydric	Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Orainage Patterns (B10)
Depth (in narks: DROLO Itland Hyde mary Indice High Was Saturati	OGY drology Indicators: cators (minimum of one water (A1) dater Table (A2) ion (A3)	e is required: c	Water-Stai Aquatic Fa True Aquat	una (B13) tic Plants (B14	· -	Hydric	Second	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (in narks: DROL(etland Hyde imary Indice Surface High Water IN Water IN	OGY drology Indicators: cators (minimum of one water (A1) dater Table (A2) dion (A3) Marks (B1)	e is required: c	Water-Stai Aquatic Fa True Aquat Hydrogen S	una (B13) tic Plants (B14 Sulfide Odor (0	() (C1)		Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8)
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Depth (in marks: TOROLO Stland Hyde imary Indice High Water Marks: Sedime Drift De Algal M. Iron De	OGY drology Indicators: cators (minimum of one e Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5)		Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	una (B13) tic Plants (B14) Sulfide Odor (Ghizospheres of Reduced Iron Reduction in Surface (C7)	(c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	ts (C3)	Second S S S S S S S S S S S S S S S S S S S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
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Project/Site:	Willowbrook Solar Farm	1		_ City/County:	Brown		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewables	s				State: OH	Sampling Point: WL-020-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Toeslop	e				relief (concave, convex, none):	Concave
, ,	· · · · · · · · · · · · · · · · · · ·		504	I ong:		83.69125779	Datum: NAD83 UTM16N
Soil Map Unit Name		00.0.0				NWI class	· -
•	logic conditions on the site	o typical for this ti	imo of voor?	Voc	X No	(If no, explain in Remark	-
-	-		-	_			
Are Vegetation	No , Soil No					ormal Circumstances" present?	
Are Vegetation	No , Soil No				,	ded, explain any answers in Re	•
SUMMARY OF	FINDINGS Attach	n site map sh	owing samplin	g point loca	tions, tra	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No	Is the	Sampled Ar	rea	
Hydric Soil Present	?	Yes X	No		a Wetland?	Yes	X No
Wetland Hydrology	Present?	Yes X	No	_			
Remarks:							
VEGETATION -	Use scientific nan	nes of plants					
		·	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Cover	Species?	Status	Dominance Test workshee	t:
1		-					
_						Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	.C: <u>3</u> (A)
4							
5						Total Number of Dominant	
				_= Total Cover		Species Across All Strata:	(B)
0 1: (0 0	(Distribute 45)					Developed of Developed On a six	
	tum (Plot size: 15' radiu					Percent of Dominant Species	
1						That Are OBL, FACW, or FA	.C: <u>100%</u> (A/B)
							
. —						Prevalence Index workshee	ef:
5.							
				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)		_		OBL species 10%	x1 = 0.1
Carex vulpinoid	dea		30%	Yes	FACW	FACW species 50%	x2 = 1
2. Vernonia gigan	tea		25%	Yes	FAC	FAC species 55%	x3 = 1.65
3. Juncus tenuis			20%	Yes	FAC	FACU species 35%	x4 = 1.4
4. Schedonorus a			15%	No	FACU	UPL species	x5 =
5. Juncus effusus			10%	No	OBL	Column Totals: 1.50	(A) 4.15 (B)
6. Persicaria maci			10%	No No	FACW		
7. Trifolium repen	S		10%	No No	FACU	Prevalence Index =	B/A = 2.77
8. Poa pratensis			10%	No No	FAC		
Agrostis gigante Ambrosia arten			5%	No No	FACU FACU	Hydrophytic Vegetation Inc	dicators:
11. Acalypha rhom			5%	No	FACU	Trydrophytic vegetation in	ilicators.
12. Acarypha monii	bolaca				1700	1-Rapid Test for Hy	drophytic Vegetation
13.						X 2-Dominance Test i	
14.						X 3-Prevalence Index	
15.				- <u> </u>		4-Morphological Ad	aptations ¹ (Provide supporting
16.						data in Remarks or	on a separate sheet)
17.						Problematic Hydron	ohytic Vegetation ¹ (Explain)
18							
19.						¹ Indicators of hydric soil and	
20						be present, unless disturbed	or problematic.
			150%	_= Total Cover			
Woody Vine Stratur	- '	ıs)				Hydrophytic	
1						Vegetation	V N-
2				= Total Cover		Present? Yes	XNo
				_ Total Cover			
Remarks: (Include	photo numbers here or or	n a senarate she	et)			_1	
(monde	F		,				
1							!

SOIL Sampling Point: WL-020-WET

iches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 5/2	95	10YR 3/4	5	C	PL	Sily loam	
7-20	10YR 6/2	90	10YR 4/6	10		M	Sily loam	-
7-20	10110/2	90	10111 4/0			IVI	Olly Idaili	
				_				
				_				
				_				
				-				
/pe: C=0	Concentration, D=Deplet	ion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.
dric Soil	Indicators:					Indic	ators for Pro	blematic Hydric Soils ³ :
_ Histos	` '			ed Matrix (S4	·)			t Prairie Redox (A16)
	Epipedon (A2)		Sandy Red					Manganese Masses (F12)
	Histic (A3)		Stripped Ma					Surface (S7)
	gen Sulfide (A4)			ky Mineral (F	•			Shallow Dark Surface (TF12)
	ed Layers (A5)			ed Matrix (F2	<u>(</u>)		Othe	r (Explain in Remarks)
	fluck (A10)	(A11)	X Depleted M	` ,				
	ed Below Dark Surface (Dark Surface (A12)	(A11)		(Surface (F6) ark Surface (F			3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)			ark Suriace (r ressions (F8)	1)			hydrology must be present,
	flucky Peat or Peat (S3)		X_ Redox Dep	163310113 (1 0)				disturbed or problematic.
								•
Type:	Layer (if observed):							
	inches):		-			Hydria	Soil Present	? Yes X No
narks:								
/DROL	OGY							
YDROL etland Hy	OGY drology Indicators:	is required; o	hock all that apply)					
/DROL etland Hy imary Indi	OGY drology Indicators: cators (minimum of one	is required: c		ned Leaves (F	89)		Secor	ndary Indicators (minimum of two required)
YDROL etland Hy imary Indi Surfac	OGY drology Indicators: cators (minimum of one e Water (A1)	is required: c	Water-Stair	ned Leaves (E	39)		Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
/DROL etland Hy imary Indi Surfac High W	OGY drology Indicators: cators (minimum of one e Water (A1) //ater Table (A2)	is required: c	Water-Stair Aquatic Fau	ına (B13) `	,		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROL etland Hy imary Indi C Surfac High W Satura	OGY drology Indicators: cators (minimum of one e Water (A1) //ater Table (A2) tion (A3)	is required: c	Water-Stair Aquatic Fau True Aquat	una (B13) ic Plants (B14	· -})		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
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YDROL etland Hy rimary Indi Surfac High W Satura Water Sedim	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	is required: c	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (0	() C1) on Living Roof		Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROL etland Hy rimary Indi Surfac High W Satura Water Sedim Drift D 	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	is required: c	Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o	() C1) on Living Root on (C4)	es (C3)	Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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/DROL etland Hy imary Indi (Surface High W Satura Water Sedim Drift D Algal N	oGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4)		Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14 Sulfide Odor (0 nizospheres o f Reduced Iro Reduction in	(c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	es (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Project/Site:	Willowbrook Solar Farm	l .		City/County:	Brown		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewables	S				State: OH	Sampling Point: WL-021-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Toeslop	e				relief (concave, convex, none):	Concave
, ,	0% Lat:		048	I ong:		, , , , , , , , , , , , , , , , , , , ,	Datum: NAD83 UTM16N
Soil Map Unit Name		00.01722	0-10		<u> </u>	NWI class	
	logic conditions on the site	a tunical for this ti	ma of voor?	Voc	X No		
-	_		-	_		 ` ` `	
Are Vegetation	No , Soil No					ormal Circumstances" present?	
Are Vegetation			No naturally pro			ded, explain any answers in Re	
SUMMARY OF	FINDINGS Attach	site map sh	owing samplin	g point loca	tions, tra	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No	Is the	Sampled A	ea	
Hydric Soil Present	?	Yes X	No	within	a Wetland?	Yes	X No
Wetland Hydrology	Present?	Yes X	No	_			
Remarks:							
VEGETATION	Use scientific nar	nes of plants					
		, p	Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)	% Cover		Status	Dominance Test workshee	t:
1		-′					
0				·		Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	C: 5 (A)
4.							
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	(B)
Sapling/Shrub Strat	tum (Plot size: 15' radiu))				Percent of Dominant Species	
						That Are OBL, FACW, or FA	AC: 100% (A/B)
2							
						Barrelous de decressado los	-4-
						Prevalence Index workshee)T:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)	-	_ Total Cover		OBL species 25%	x1 = 0.25
Echinochloa cru)	30%	Yes	FACW	FACW species 45%	x2 = 0.9
Bidens cernua	uo gum		10%	Yes	OBL	FAC species 15%	x3 = 0.45
Persicaria hydra	opiper		10%	Yes	OBL	FACU species 10%	x4 = 0.4
Poa pratensis	7.7		10%	Yes	FAC	UPL species	x5 =
5. Carex vulpinoid	lea		10%	Yes	FACW	Column Totals: 0.95	(A) 2 (B)
6. Agrostis gigant	ea		5%	No	FACW		
7. Xanthium strum	narium		5%	No	FAC	Prevalence Index =	B/A = 2.11
8. Acalypha rhom	boidea		5%	No	FACU		
9. Trifolium repen-			5%	No	FACU		
10. Scirpus atrovire	ens		5%	No	OBL	Hydrophytic Vegetation Inc	dicators:
11.							
12.							drophytic Vegetation
13.						X 2-Dominance Test i X 3-Prevalence Index	
14.							aptations¹ (Provide supporting
16.							on a separate sheet)
17.							phytic Vegetation ¹ (Explain)
18.							my no vegetane (Explain)
19.						¹ Indicators of hydric soil and	wetland hydrology must
20.				<u> </u>		be present, unless disturbed	
			95%	= Total Cover			
				_			
Woody Vine Stratur	m (Plot size: 30' radiu	ıs)				Hydrophytic	
1.						Vegetation	
2.						_	X No
]		· · · · · · · · · · · · · · · · · · ·		= Total Cover	-		-
Remarks: (Include	photo numbers here or or	n a separate shee	et.)				

SOIL Sampling Point: WL-021-WET

ppth Matrix ches) Color (moist) 0-20 10YR 6/2		1 1 1	edox Features				
	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
	90	10YR 5/4	10	С	М	Si Cl Lo	
/pe: C=Concentration, D=Depletion	on, RM=Reduc	ced Matrix, CS=Cover	ed or Coated S	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.
dric Soil Indicators:					Indic	ators for Prol	blematic Hydric Soils³:
Histosol (A1)		Sandy Gley	yed Matrix (S4))			t Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Red	ox (S5)			Iron-N	Manganese Masses (F12)
Black Histic (A3)		Stripped M	atrix (S6)			Dark S	Surface (S7)
_ Hydrogen Sulfide (A4)		Loamy Mud	cky Mineral (F1	1)		Very S	Shallow Dark Surface (TF12)
Stratified Layers (A5)		Loamy Gle	yed Matrix (F2)		Other	(Explain in Remarks)
2 cm Muck (A10)		X Depleted M	latrix (F3)			_	
Depleted Below Dark Surface (A	A11)	Redox Darl	k Surface (F6)				
Thick Dark Surface (A12)		Depleted D	ark Surface (F	7)		³ Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		X Redox Dep	ressions (F8)			wetland	hydrology must be present,
5 cm Mucky Peat or Peat (S3)						unless	disturbed or problematic.
strictive Layer (if observed):							
Type:							
Depth (inches):					Hydric	Soil Present	? Yes <u>X</u> No
TRROL OCY							
'DROLOGY							
etland Hydrology Indicators:	s required: che	eck all that apply)				Secon	dary Indicators (minimum of two required)
TDROLOGY otland Hydrology Indicators: imary Indicators (minimum of one i	s required: che		ned Leaves (B	9)			
etland Hydrology Indicators: imary Indicators (minimum of one i Surface Water (A1)	s required: che	Water-Stair	`	9)			Surface Soil Cracks (B6)
etland Hydrology Indicators: imary Indicators (minimum of one i	s required: che	Water-Stair Aquatic Far	`	,			
etland Hydrology Indicators: imary Indicators (minimum of one i Surface Water (A1) High Water Table (A2) Saturation (A3)	s required: che	Water-Stain Aquatic Fan True Aquat	una (B13) ic Plants (B14))			Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
etland Hydrology Indicators: imary Indicators (minimum of one i Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	s required: che	Water-Stain Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14) Sulfide Odor (C) C1)	s (C3)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
etland Hydrology Indicators: imary Indicators (minimum of one i Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	s required: che	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14)) C1) n Living Root	s (C3)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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triand Hydrology Indicators: imary Indicators (minimum of one i Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	s required: che	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence c Recent Iror	una (B13) ic Plants (B14) Sulfide Odor (C hizospheres of Reduced Iron Reduction in) C1) n Living Roots n (C4)		<u> </u>	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Willowbrook Solar Farm	1		City/County:	Highland		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewable	s				State: OH	Sampling Point: WL-022-UPL
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	•
Landform (hillslope	, terrace, etc.): Backslo	ppe			Local	relief (concave, convex, none):	None
Slope (%):	1% Lat:	39.01936	359	Long:	-8	83.69740072	Datum: NAD83 UTM16N
Soil Map Unit Name				J		NWI class	•
•	logic conditions on the sit	e typical for this tir	me of year?	Ves	X No	(If no, explain in Remark	
•	·		•	_		ormal Circumstances" present?	
Are Vegetation	No , Soil No					·	
Are Vegetation	No , Soil No				•	ded, explain any answers in Re	•
SUMMARY OF	FINDINGS Attach	1 site map sho	owing sampling	point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No		Sampled Ar		
Hydric Soil Present		Yes X		within	a Wetland?	Yes	NoX
Wetland Hydrology	Present?	Yes	NoX				
Remarks:							
VEGETATION	Use scientific nar	mes of plants.					
			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius	_)	% Cover	Species?	Status	Dominance Test workshee	t:
1							
2						Number of Dominant Specie	s
3.						That Are OBL, FACW, or FA	.C: <u>5</u> (A)
4							
5						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	8 (B)
Conling/Chruh Ctro	tum (Diet size: 15' radi					Dercent of Deminent Charles	-
1. Rosa multiflora	tum (Plot size: 15' radi	<u>12</u>)	10%	Yes	FACU	Percent of Dominant Species That Are OBL, FACW, or FA	
2.	<u> </u>		1070	163	1700	THAT AIR ODE, I ACVV, OF I A	(A/B)
							
-						Prevalence Index workshee	et:
5.							
			10%	= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	t size: 5' radius	_)				OBL species	x1 =
1. Agrostis gigant	ea		30%	Yes	FACW	FACW species 60%	x2 = 1.2
2. Solidago altissi	ima		15%	Yes	FACU	FAC species 21%	x3 = 0.63
3. Juncus margina	atus		10%	Yes	FACW	FACU species 50%	x4 =2
4. Juncus tenuis			10%	Yes	FAC	UPL species	x5 =
5. Rubus allegher			10%	Yes	FACU	Column Totals: 1.31	(A) <u>3.83</u> (B)
6. Carex vulpinoid			<u>10%</u> 10%	Yes Yes	FACW FACW	Prevalence Index =	B/A = 2.92
Carex granular Andropogon vir			5%	No	FACU	Prevalence index =	D/A - 2.92
9. Eupatorium ser	-		5%	No	FAC		
10. Vernonia gigan			5%	No	FAC	Hydrophytic Vegetation Inc	dicators:
11. Phleum pratens			5%	No	FACU	yaopya.o rogotation	
12. Solanum caroli			4%	No	FACU	1-Rapid Test for Hy	drophytic Vegetation
13. Ambrosia arten	nisiifolia		1%	No	FACU	X 2-Dominance Test i	
14. Apocynum can	nabinum		1%	No	FAC	X 3-Prevalence Index	is $\leq 3.0^{1}$
15.						4-Morphological Ad	aptations ¹ (Provide supporting
16						data in Remarks or	on a separate sheet)
17.						Problematic Hydro	ohytic Vegetation¹ (Explain)
18							
19						¹ Indicators of hydric soil and	
20						be present, unless disturbed	or problematic.
			121%	= Total Cover			
M/	(Dist size 00)					Headan about a	
Woody Vine Stratu	_ ·	<u>us</u>)				Hydrophytic	
1						Vegetation	V No
2				= Total Cover		Present? Yes	X No
				- Total Covel			
Remarks: (Include	photo numbers here or o	n a separate shee	et.)			1	
, inolado	,	parato onto	,				
1							

SOIL Sampling Point: WL-022-UPL

epth ches)	Matrix Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 4/2	95	10YR 4/4	5	C	M	Silt loam	. tomanio
6-20	10YR 5/2	98	10YR 4/4			M		
0-20	10113/2	90	10111 4/4			IVI	Silt loam	
				_				
				_				
				_				
				_				
0-0-1	unturation D-Daniel	ion DM-Dod	used Matrix CC-Cause		Canal Casina	21	- DI - Dana I	inima BA-BA-Aniv
ric Soil Indica		ion, Kivi-Keu	uced Matrix, CS=Cover	ed of Coaled	Sand Grains.			ining, M=Matrix. lematic Hydric Soils³:
Histosol (A1)			Sandy Gley	ed Matrix (S4	1)	maic		Prairie Redox (A16)
Histic Epiped	,		Sandy Red	,	• /			anganese Masses (F12)
Black Histic	, ,		Stripped Ma					urface (S7)
Hydrogen Su	. ,			ky Mineral (F	1)			hallow Dark Surface (TF12)
Stratified Lay	yers (A5)		Loamy Gley	ed Matrix (F2	2)			(Explain in Remarks)
2 cm Muck ((A10)		X Depleted M	•				•
Depleted Be	elow Dark Surface	(A11)	Redox Dark	Surface (F6))			
Thick Dark S	Surface (A12)		Depleted D	ark Surface (F	F7)		³ Indicators o	f hydrophytic vegetation and
_ Sandy Muck	ky Mineral (S1)		Redox Dep	ressions (F8)			wetland h	nydrology must be present,
5 cm Mucky	Peat or Peat (S3)						unless	disturbed or problematic.
trictive Layer	r (if observed):							
_								
Type:								
Depth (inche	rs):		-			Hydric	Soil Present?	Yes X No
Depth (inchest	Y		-			Hydric	Soil Present?	Yes X No
Depth (inchest narks:	Y gy Indicators:					Hydric		
Depth (inchestarks: DROLOGY tland Hydrology mary Indicators	Y igy Indicators: s (minimum of one	is required: c	heck all that apply)			Hydric	Second	dary Indicators (minimum of two required)
Depth (inchest narks: DROLOGY tland Hydrology Indicators Surface Wat	Y Igy Indicators: s (minimum of one ter (A1)	is required: c	Water-Stair	led Leaves (E	39)	Hydric	Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6)
DROLOGY tland Hydrology mary Indicators Surface Wat High Water	y agy Indicators: s (minimum of one ter (A1) Table (A2)	is required: c	Water-Stair Aquatic Fau	ına (B13)	,	Hydric	Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
DROLOGY tland Hydrolo mary Indicators Surface Wat High Water Saturation (A	y Indicators: s (minimum of one ter (A1) Table (A2) A3)	is required: c	Water-Stair Aquatic Fau True Aquat	ına (B13) c Plants (B14	, 	Hydric	Second	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLOGY Eland Hydrology mary Indicators Surface Wat High Water Saturation (A	rgy Indicators: s (minimum of one ter (A1) Table (A2) A3) s (B1)	is required: c	Water-Stair Aquatic Fau True Aquat Hydrogen S	ina (B13) c Plants (B14 sulfide Odor () C1)		Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8)
DROLOGY tland Hydrology mary Indicators Surface Wate High Water Saturation (A Water Marks Sediment De	rgy Indicators: s (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2)	is required: c	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R	ina (B13) c Plants (B14 sulfide Odor (G nizospheres c	l) C1) on Living Root		Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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Depth (inchest parks: DROLOG) tland Hydrolog mary Indicators Surface Wat High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg to Observation frace Water Presenturation Presenturation Present	y gy Indicators: s (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) c Crust (B4) ts (B5) //isible on Aerial Im getated Concave S ns: esent? eent? y fringe)	agery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or V Other (Expl	una (B13) c Plants (B14) culfide Odor (Control of Reduced Iron Reduction in Surface (C7) /ell Data (D9) ain in Remark s): N/A s): >18 s): >18	C1) C1) C1) C1) C1) C1) C1 C2) C3 C3 C4 C4 C5 C5 C6 C6 C7	s (C3) C6)	Second S	dary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Willowbrook Solar Farm		City/County:	Brown		Sampling Date: 6/21/2018
Applicant/Owner:	Open Road Renewables				State: OH	Sampling Point: WL-022-WET
Investigator(s):	BH & JJC		Sect	on, Townsh	ip, Range:	
Landform (hillslope	, terrace, etc.): Backslope			Local r	relief (concave, convex, none):	Concave
Slope (%):	1% Lat: 39.01975414		Long:	-	83.6969713	Datum: NAD83 UTM16N
Soil Map Unit Name	e: JoR1B1				NWI class	ification: None
Are climatic / hydro	logic conditions on the site typical for this time of	year?	Yes	X No	(If no, explain in Remark	(S.)
Are Vegetation	No , Soil No , or Hydrology No	significantly d	isturbed?	Are "No	ormal Circumstances" present?	Yes X No
Are Vegetation	No , Soil No , or Hydrology No	naturally prob	lematic?	(If need	ded, explain any answers in Re	marks.)
SUMMARY OF	FINDINGS Attach site map showin	g sampling	point loca	ions, trar	nsects, important featur	es, etc.
Hydrophytic Vegeta		lo		Sampled Ar		
Hydric Soil Present	? Yes X N	lo		a Wetland?		X No
Wetland Hydrology	Present? Yes X	lo				
Remarks:						
VEGETATION	Use scientific names of plants.	Alexalesta	D t	In dia atau		
Tree Stratum (Plot	size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test workshee	6.
1.	Size. So radius)	70 COVE	Species:	Status	Dominance rest workshee	ι.
		-			Number of Dominant Specie	S
3.					That Are OBL, FACW, or FA	.C:(A)
4.						
5					Total Number of Dominant	(5)
			= Total Cover		Species Across All Strata:	8 (B)
Sapling/Shrub Strat	tum (Plot size: 15' radius)				Percent of Dominant Species	s
	,, ,, ,, ,, ,, ,, ,				That Are OBL, FACW, or FA	
2.						
3.						
					Prevalence Index workshee	et:
5			= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	t size: 5' radius)		- Total Cover		OBL species 5%	x1 = 0.05
Onoclea sensib	•	25%	Yes	FACW	FACW species 80%	x2 = 1.6
2. Juncus margina	atus	20%	Yes	FACW	FAC species 25%	x3 = 0.75
3. Juncus tenuis		10%	Yes	FAC	FACU species 10%	x4 =
4. Vernonia gigan		10%	Yes	FAC	UPL species	x5 =(P)
Carex vulpinoid Andropogon vii		10%	Yes Yes	FACU FACU	Column Totals: 1.20	(A)(B)
7. Solidago gigan	•	10%	Yes	FACW	Prevalence Index =	B/A = 2.33
8. Agrostis gigant	ea	10%	Yes	FACW		
9. Carex granular	is	5%	No	FACW		
10. Eupatorium ser		5%	No	FAC	Hydrophytic Vegetation Inc	dicators:
11. Epilobium color	ratum	5%	No	OBL	1 Banid Test for Hy	draphytic Vagatation
13.					X 2-Dominance Test i	drophytic Vegetation s >50%
14.		-			X 3-Prevalence Index	
15.					4-Morphological Ad	aptations ¹ (Provide supporting
16						on a separate sheet)
17.					Problematic Hydrop	phytic Vegetation ¹ (Explain)
18.					¹ Indicators of hydric soil and	wetland hydrology must
19. 20.					be present, unless disturbed	
		120%	= Total Cover		bo procent, amose dictarboa	or problemade.
Woody Vine Stratur	m (Plot size: 30' radius)				Hydrophytic	
l -					Vegetation	
2			= Total Cover		Present? Yes	X No
			- TOTAL COVEL			
Remarks: (Include	photo numbers here or on a separate sheet.)				1	
,	,					

SOIL Sampling Point: WL-022-WET

pth ches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 5/2	90	10YR 5/6	10	C	M	Sily loam	
	10111 0/2		10111 0,0				City Iodini	
pe: C=C		tion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.	² Locati	on: PL=Pore	 Lining, M=Matrix.
ric Soil I	Indicators:					Indic	ators for Pro	blematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy Gley	ed Matrix (S4	.)			t Prairie Redox (A16)
Histic E	Epipedon (A2)		Sandy Red					Manganese Masses (F12)
•	Histic (A3)		Stripped Ma					Surface (S7)
	gen Sulfide (A4)			ky Mineral (F	•			Shallow Dark Surface (TF12)
-	ed Layers (A5)			ed Matrix (F2	2)		Other	(Explain in Remarks)
_	luck (A10)	(844)	X Depleted M	. ,				
- '	ed Below Dark Surface	(A11)		Surface (F6)			31m -1:	of hydrophytic verstation and
_	Dark Surface (A12)			ark Surface (F ressions (F8)	-1)			of hydrophytic vegetation and hydrology must be present,
-	Mucky Mineral (S1) lucky Peat or Peat (S3)		X Redox Dep	ressions (F8)				disturbed or problematic.
							uiliess	distance of problematic.
	Layer (if observed):							
Type:			•					
Depth (i	inches):					Hydric	Soil Present	? Yes X No
Depth (i	inches):		-			Hydric	Soil Present	? Yes <u>X</u> No
narks:			-			Hydric	Soil Present	? Yes <u>X</u> No
narks:			-			Hydric	Soil Present	? Yes X No
DROL	OGY	e is required: c	heck all that apply)			Hydric		Yes X No
DROL	OGY drology Indicators:	e is required: c		ned Leaves (B	39)	Hydric	Secon	
DROL	OGY drology Indicators: cators (minimum of one	s is required: c	Water-Stair Aquatic Fat	ına (B13)	,	Hydric	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
DROL tland Hyd mary India Surface High W	OGY drology Indicators: cators (minimum of one e Water (A1)	e is required: c	Water-Stair Aquatic Fat True Aquat	ina (B13) ic Plants (B14)	Hydric	Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROL tland Hyd mary India Surface High W Satural Water I	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	e is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor (0) C1)		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
DROL tland Hyd mary India Surface High W Satural Water I Sedime	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	e is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o	.) C1) In Living Roof		Secor	Idary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
DROL tland Hyo mary Indio Surface High W Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	s is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o f Reduced Iro	c) C1) In Living Root In (C4)	s (C3)	Secor	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
DROL tland Hye mary Indi Surface High W Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4)	e is required: c	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o f Reduced Iro Reduction in	c) C1) In Living Root In (C4)	s (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
DROL tland Hye mary Indio Surface High W Saturat Water I Sedime Drift De Algal M	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5)		Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck	una (B13) ic Plants (B14 Sulfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7)	.) C1) In Living Roof In (C4) Tilled Soils (s (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
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DROL tland Hyo mary Indio Surface High W Satural Water I Sedime Drift De Algal M Iron De Inunda Sparse	ogy drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial In	nagery (B7)	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	una (B13) ic Plants (B14 Sulfide Odor (Conizospheres of Reduced Iro Reduction in Surface (C7)	c) C1) on Living Root n (C4) Tilled Soils (s (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
TOROL tland Hye mary Indie Surface High W Saturat Sedime Drift De Algal M Iron De Inunda Sparse	ogy drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations:	nagery (B7) Surface (B8)	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) Vell Data (D9) ain in Remark	c) C1) on Living Root n (C4) Tilled Soils (s (C3)	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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/DROL Itland Hyo mary India Surface High W Saturat Water I Sedime Drift De Algal N Iron De Inunda Sparse Id Observ rface Wat ater Table turation P cludes cal	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations: ter Present? Present? Present?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18	C1) C1) In Living Root In (C4) Tilled Soils (C4) (S5) Wetland	s (C3) C6)	Secon X X X	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Marks: Mary India Surface High W Saturat Water I Sedime Drift De Algal W Iron De Inunda Sparse	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations: ter Present? Present? Present?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fai True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18	C1) C1) In Living Root In (C4) Tilled Soils (C4) (S5) Wetland	s (C3) C6)	Secon X X X	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
TDROL tland Hyo mary Indio Surface High W Satural Water I Sedime Drift De Algal M Iron De Inunda Sparse Id Observ rface Wat ater Table turation P	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations: ter Present? Present? Present?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18	C1) C1) In Living Root In (C4) Tilled Soils (C4) (S5) Wetland	s (C3) C6)	Secon X X X	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
DROL tland Hy mary India Surface High W Saturat Water I Sedime Drift De Iron De Inunda Sparse Id Observ rface Wat ster Table turation P cludes cal scribe Re	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations: ter Present? Present? Present?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18	C1) C1) In Living Root In (C4) Tilled Soils (C4) (S5) Wetland	s (C3) C6)	Secon X X X	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
TDROL tland Hyo mary Indio Surface High W Satural Water I Sedime Drift De Algal M Iron De Inunda Sparse Id Observ rface Wat ater Table turation P	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations: ter Present? Present? Present?	nagery (B7) Surface (B8) Yes No Yes No Yes No	Water-Stair Aquatic Fat True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A s): >18 s): >18	C1) C1) In Living Root In (C4) Tilled Soils (C4) (S5) Wetland	s (C3) C6)	Secon X X X	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Willowbrook Solar Farm			City/County:	Brown		Sampling Date: <u>6/21/2018</u>
Applicant/Owner:	Open Road Renewables	i				State: OH	Sampling Point: WL-023-WET
Investigator(s):	BH & JJC			Sect	ion, Townsh	ip, Range:	
Landform (hillslope,	, terrace, etc.): Toeslope	9				relief (concave, convex, none):	Concave
Slope (%):	1% Lat:	39.02768	32	Long:			Datum: NAD83 UTM16N
Soil Map Unit Name				<u> </u>		NWI class	•
	logic conditions on the site	typical for this tin	ne of year?	Ves	X No	(If no, explain in Remark	
-	-		-	_		ormal Circumstances" present?	
Are Vegetation	No , Soil No					·	
Are Vegetation	No , Soil No	· -				ded, explain any answers in Re	
SUMMARY OF	FINDINGS Attach	site map sho	wing sampling	g point loca	tions, trai	nsects, important featur	es, etc.
Hydrophytic Vegeta	ation Present?	Yes X	No		Sampled Ar		
Hydric Soil Present		Yes X	No		a Wetland?	Yes	X No
Wetland Hydrology	Present?	Yes X	No	-			
Remarks:							
VEGETATION -	Use scientific nan	nes of plants.				1	
			Absolute	Dominant	Indicator		
Tree Stratum (Plot)	% Cover	Species?	Status	Dominance Test workshee	t:
1						Number of Deminent Consis	
2. 3.				·		Number of Dominant Specie That Are OBL, FACW, or FA	
4				·		THAT AIR ODE, I ACVV, OF I A	C(A)
5.						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	3 (B)
			<u>-</u>	-			
Sapling/Shrub Strat	tum (Plot size: 15' radiu	s)				Percent of Dominant Species	s
1						That Are OBL, FACW, or FA	C: 100% (A/B)
2							
						Prevalence Index workshee	et:
5				= Total Cover		Total % Cover of:	Multiply by:
Herb Stratum (Plot	size: 5' radius)	-	- Total Cover		OBL species 40%	x1 = 0.4
Leersia oryzoid)	20%	Yes	OBL	FACW species 20%	$x^{2} = 0.4$
Poa pratensis			20%	Yes	FAC	FAC species 20%	x3 = 0.6
3. Echinochloa cru	us-galli		20%	Yes	FACW	FACU species 10%	x4 = 0.4
4. Juncus effusus			10%	No	OBL	UPL species	x5 =
5. Schedonorus a	rundinaceus		10%	No	FACU	Column Totals: 0.90	(A) 1.8 (B)
6. Persicaria hydro	opiper		5%	No	OBL		
7. Carex frankii			5%	No	OBL	Prevalence Index =	B/A = 2.00
8							
9. 10.						Hydrophytic Vegetation Inc	diantoro
11.						nydrophytic vegetation inc	dicators.
12.						1-Rapid Test for Hv	drophytic Vegetation
13.						X 2-Dominance Test i	
14.						X 3-Prevalence Index	
15.						4-Morphological Ad	aptations ¹ (Provide supporting
16							on a separate sheet)
17						Problematic Hydro	phytic Vegetation ¹ (Explain)
18						1	
						¹ Indicators of hydric soil and	
20			000/	- Tatal Causa		be present, unless disturbed	or problematic.
			90%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radiu	e)				Hydrophytic	
1	- ·	<u> </u>				Vegetation	
2.							X No
				= Total Cover			
Remarks: (Include	photo numbers here or on	a separate sheet	.)				

SOIL Sampling Point: WL-023-WET

epth	ription: (Describe to Matrix		Re	edox Features	;			
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 5/2	90	10YR 5/6	10	С	M	Sily loam	
ype: C=Co	oncentration, D=Depl	etion, RM=Red	uced Matrix, CS=Cover	ed or Coated	Sand Grains.	² Locati	on: PL=Pore	Lining, M=Matrix.
dric Soil Ir	ndicators:					Indic	ators for Pro	blematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gley	yed Matrix (S4	-)			t Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Red	lox (S5)			Iron-l	Manganese Masses (F12)
Black Hi	istic (A3)		Stripped M	atrix (S6)			Dark S	Surface (S7)
Hydroge	en Sulfide (A4)		Loamy Mud	cky Mineral (F	1)		Very S	Shallow Dark Surface (TF12)
Stratified	d Layers (A5)		Loamy Gle	yed Matrix (F2	2)		Other	r (Explain in Remarks)
2 cm Mu	uck (A10)		X Depleted M	Matrix (F3)				
Deplete	d Below Dark Surface	e (A11)	Redox Dar	k Surface (F6))			
Thick Da	ark Surface (A12)		Depleted D	ark Surface (F	- 7)		³ Indicators	of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox Dep	ressions (F8)			wetland	hydrology must be present,
5 cm Mu	ucky Peat or Peat (S	3)	<u> </u>				unless	disturbed or problematic.
strictive L	ayer (if observed):							
Type:			<u>-</u>					
	achae).					Lludria		? Yes X No
Depth (ir	iciles).		<u> </u>			Hyunc	Soil Present	<u> </u>
marks:			-			Hyunc	Soil Present	
marks: /DROLC etland Hyd	DGY rology Indicators:					Hyunc	Soil Present	
marks: /DROLC etland Hyd	DGY	e is required: c	heck all that apply)			Hyunc		ndary Indicators (minimum of two required)
marks: /DROLC etland Hyd imary Indic	DGY rology Indicators: ators (minimum of or	ne is required: c		ned Leaves (B	39)	Hyunc	Secor	
TDROLC Itland Hyd Imary Indic Surface	DGY rology Indicators: ators (minimum of or	e is required: c		,	39)	Hydric	Secon	ndary Indicators (minimum of two required)
/DROLC etland Hyd imary Indic Surface High Wa	OGY rology Indicators: ators (minimum of or Water (A1) ater Table (A2)	e is required: c	Water-Stair Aquatic Fa	,	,	Hyunc	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6)
TDROLC etland Hyd imary Indic Surface High Wa	OGY rology Indicators: ators (minimum of or Water (A1) ater Table (A2)	e is required: c	Water-Stain Aquatic Fa True Aquat	una (B13)	· 	Hydric	Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10)
POROLO Surface High Wa Saturatio Water M	DGY rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3)	e is required: c	Water-Stain Aquatic Fa True Aquat Hydrogen S	una (B13) tic Plants (B14	(1) C1)		Secon	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
TDROLC Etland Hyd imary Indic Surface High Wa Saturati Water M Sedimel	Pology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1)	e is required: c	Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R	una (B13) tic Plants (B14 Sulfide Odor (0	c) C1) on Living Root		Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
POROLO Portland Hydimary Indica Surface High Water M Sedimen Drift De	rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2)	e is required: c	Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres o	(-) C1) on Living Root on (C4)	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
TDROLC etland Hyd imary Indic Surface High Wa Saturati Water N Sedimel Drift Del Algal Ma	rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3)	e is required: c	Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence c Recent Iror	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres o of Reduced Iro	(-) C1) on Living Root on (C4)	s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
TDROLC etland Hyd imary Indic Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep	rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck	una (B13) tic Plants (B14 Sulfide Odor (0 hizospheres o f Reduced Iro n Reduction in	c) C1) on Living Root on (C4) Tilled Soils (s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
TDROLC etland Hyd imary Indic Surface High Wa Saturati Water M Sedimer Drift Del Algal Ma Iron Deg Inundati	rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	magery (B7)	Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V	una (B13) tic Plants (B14 Sulfide Odor (C hizospheres o of Reduced Iro n Reduction in Surface (C7)	E) C1) on Living Root on (C4) Tilled Soils (s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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YDROLC etland Hyd imary Indic Surface High Wa Sedimen Drift Del Algal Ma Iron Dep Inundati Sparsely	pogy rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave ations: ar Present?	magery (B7) Surface (B8)	Water-Stair Aquatic Fa True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V Other (Exp Depth (inche	una (B13) tic Plants (B14) Sulfide Odor (Control Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark es): 3 es): >18	(S) C1) C1) on Living Roof on (C4) Tilled Soils (s (C3)	Secor X	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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YDROLO etland Hyd rimary Indic X	pogy rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave ations: ar Present? Present? esent? esent?	magery (B7) e Surface (B8) Yes X No Yes No Yes X No	Water-Stain Aquatic Fai True Aquat Hydrogen Sin Oxidized Ring Presence of Recent Iron Thin Muck Gauge or Wind Other (Exp Depth (inchesis) Depth (inchesis)	una (B13) tic Plants (B14) Sulfide Odor (Control Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark as): 3 as): >18 ss): 0	(S) C1) C1) on Living Root on (C4) Tilled Soils (C4) (S) Wetland	s (C3) C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLO etland Hyd rimary Indic X Surface High Wa X Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Inundati Sparsely eld Observ. urface Water dater Table I aturation Princludes cap escribe Rec	pogy rology Indicators: ators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave ations: ar Present? Present? esent? esent?	magery (B7) e Surface (B8) Yes X No Yes No Yes X No	Water-Stain Aquatic Fai True Aquat Hydrogen Sin Oxidized Ring Presence of Recent Iron Thin Muck Gauge or Wind Other (Exp Depth (inchesis) Depth (inchesis)	una (B13) tic Plants (B14) Sulfide Odor (Control Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark as): 3 as): >18 ss): 0	(S) C1) C1) on Living Root on (C4) Tilled Soils (C4) (S) Wetland	s (C3) C6)	Secor X ———————————————————————————————————	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Site: WL-	001		Rater(s): BS		Date: 11/4/17
1	1	Metric 1. Wetland Ar	ea (size).		
max 6 pts. s	subtotal	Select one size class and assign score	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
9	10	Metric 2. Upland but	fers and surround	ing land use.	
max 14 pts. s		MEDIUM. Buffers average 2 NARROW. Buffers average 2 VERY NARROW. Buffers average 2 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Resi	n (164ft) or more around wetland p 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) arour verage <10m (<32ft) around wetlar	erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
15	25	Metric 3. Hydrology.			
max 30 pts. s		3a. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (laked) 3c. Maximum water depth. Select onlessed on the select onlessed of the select onlessed of the select onlessed of the select on the select on the select on the select onlessed of the select on the select onlessed of the select onlessed on	e water (3) e or stream) (5) 3d. y one and assign score. (2) regime. Score one or double che	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat Seasonally saturack and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) pland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) led/saturated (3) ated (2) ated in upper 30cm (12in) (1) stormwater)
10	35	Metric 4. Habitat Alt	eration and Develo	pment.	
max 20 pts. s		4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
		4c. Habitat alteration. Score one or do None or none apparent (9)	ouble check and average. Check all disturbances observed		
subto	35	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
last revised 1 l	Februar	y 2001 jjm		·	

Site: WI	001	Rater(s): BS	Date: 11/4/17
su	35 btotal first pa	<u> </u>		
0	35	Metric 5. Special Wetlan	as.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or 1 Qualitative R	logy (5) angered species (10) usage (10) lating (-10)
5	40	Metric 6. Plant communi	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		0 Aquatic bed 1 Emergent 0 Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		├	2	Present and either comprises significant part of wetland's
		1 Forest 0 Mudflats 0 Open water	2	vegetation and is of moderate quality or comprises a small part and is of high quality
		0 Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one. High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)	IOW	disturbance tolerant native species
		• • • • • • • • • • • • • • • • • • • •		·
		✓ Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)	riigii	and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		✓ Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
		Absent (1)	Mudflat and	l Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		├	3	High 4ha (9.88 acres) or more
		1 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh		Thigh tha (3.00 acres) of files
		Standing dead >25cm (10m) dbn Amphibian breeding pools	Microtopoa	raphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
				and of highest quality

Site: W	L-002	Rater(s): BS	Date: 11/4/17
0	0	Metric 1. Wetland Area (size).	
max 6 pts.	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) < 0.1 acres (0.04ha) (0 pts)	
3	3	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fall-	
10.5	13.5	Metric 3. Hydrology.	
max 30 pts.	subtotal	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Part of wetland/u	ain (1) //lake and other human use (1) //lake and other human
3	16.5	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) ✓ Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) ✓ Poor (1)	
		4c. Habitat alteration. Score one or double check and average.	
	16.5	·	atic bed removal
last revised		·	

Site: W	L-002	Rater	(s): BS	Date: 11/4/17	
	40.5]			
	16.5				
su	ibtotal first pa	i .			
-10	6.5	Metric 5. Special Wetlan	ds.		
max 10 pts.	subtotal	Check all that apply and score as indicated.			
		Bog (10) Fen (10)			
		Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland-u Lake Erie coastal/tributary wetland-re	-		
		Lake Plain Sand Prairies (Oak Open	•	negy (5)	
		Relict Wet Prairies (10)			
		Known occurrence state/federal three		• , , ,	
		Significant migratory songbird/water ✓ Category 1 Wetland. See Question			
				erspersion, microtopography.	
-4	2.5	Weth Co. Flant Communi	ities, iiit	erspersion, inicrotopography.	
max 20 pts.	subtotal	】 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous at	rea
		0 Aquatic bed	1	Present and either comprises small part of wetland's	
		1 Emergent 0 Shrub		vegetation and is of moderate quality, or comprises a significant part but is of low quality	
		0 Forest	2	Present and either comprises significant part of wetland's	;
		0 Mudflats		vegetation and is of moderate quality or comprises a sn	
		0 Open water		part and is of high quality	
		0 Other	3	Present and comprises significant part, or more, of wetlar vegetation and is of high quality	nd's
		Select only one.		vegetation and is of high quality	
		High (5)	Narrative D	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or	
		Moderate (3) Moderately low (2)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation,	
		Low (1)	mod	although nonnative and/or disturbance tolerant native s	рр
		✓ None (0)		can also be present, and species diversity moderate to	
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare	
		to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endangered spp A predominance of native species, with nonnative spp	
		✓ Extensive >75% cover (-5)	111911	and/or disturbance tolerant native spp absent or virtually	у
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always	3,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp	
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	d Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		Vegetated hummucks/tussucks Coarse woodly debrie > 4.5 are (Cip)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
		0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	
		Amphibian breeding pools	Microtopog	graphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if more common of marginal quality	
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	
			3	Present in moderate or greater amounts	
				and of highest quality	

	Site: W	L-003		Rater(s): BS		Date: 11/4/17
	1	1	Metric 1. Wetland Ar	ea (size).		
,	max 6 pts.	subtotal	Select one size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1h 3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1.2 ✓ 0.1 to <0.3 acres (0.04 to <0 <0.1 acres (0.04ha) (0 pts)	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
	3	4	Metric 2. Upland buf	fers and surround	ing land use.	
	max 14 pts.	subtotal	MEDIUM. Buffers average 2 NARROW. Buffers average ✓ VERY NARROW. Buffers average 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or of LOW. Old field (>10 years), MODERATELY HIGH. Resident	(164ft) or more around wetland person to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around verage <10m (<32ft) around wetlar	erimeter (7) wetland perimeter (4) of wetland perimeter (1) of perimeter (0) verage. Hife area, etc. (7) forest. (5) ervation tillage, new fallo	ow field. (3)
	16.5	20.5	Metric 3. Hydrology.			
1	max 30 pts.	subtotal	3a. Sources of Water. Score all that a High pH groundwater (5) Vother groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake of the seasonal of the	e water (3) e or stream) (5) 3d. y one and assign score. 2) regime. Score one or double checomologies all disturbances observed ditch tile dike	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally satura ck and average. point source (non filling/grading road bed/RR trace	in (1) lake and other human use (1) pland (e.g. forest), complex (1) pland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) led/saturated (3) ated (2) ated in upper 30cm (12in) (1) stormwater)
ı]]	weir stormwater input	dredging other	
	14	34.5	Metric 4. Habitat Alt		pment.	
	max 20 pts.	subtotal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) ✓ Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) ✓ Fair (3) Poor to fair (2) Poor (1)	_		
			4c. Habitat alteration. Score one or do None or none apparent (9)	buble check and average. Check all disturbances observed		
		34.5	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
	last revised	i i ening	ry 200 i jjili			

Site: WI	L-003	Rater	(s): BS	Date: 11/4/17
su	34.5	nge		
0	34.5	Metric 5. Special Wetlan	ds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or end fowl habitat or 1 Qualitative F	angered species (10) r usage (10) Rating (-10)
-2	32.5	Metric 6. Plant communi	ties, int	erspersion, microtopography.
max 20 pts.	subtotal	」 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		1 Emergent		vegetation and is of moderate quality, or comprises a
		0 Shrub		significant part but is of low quality
		0 Forest	2	Present and either comprises significant part of wetland's
		0 Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		0 Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.		<u> </u>
		High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		✓ Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		✓ Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)	Mudflat and	d Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		0 Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		O Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		O Standing dead >25cm (10in) dbh		
		Amphibian breeding pools	Microtopog	graphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
				and of highest quality
32.5				

Site: W	L-004	Rater(s): BS	Date: 11/4/17
0	0	Metric 1. Wetland Area (size).	
max 6 pts.	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
3	3	Metric 2. Upland buffers and surrounding land use	<u>, </u>
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (7) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fall HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
17	20	Metric 3. Hydrology.	
max 30 pts.	subtotal	✓ Precipitation (1) Part of wetland Seasonal/Intermittent surface water (3) Part of riparian Perennial surface water (lake or stream) (5) 3d. Duration inundation/s 3c. Maximum water depth. Select only one and assign score. Semi- to perma >0.7 (27.6in) (3) ✓ Regularly inundation 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundation ✓ 0.4m (<15.7in) (1)	olain (1) m/lake and other human use (1) /upland (e.g. forest), complex (1) or upland corridor (1) aturation. Score one or dbl check anently inundated/saturated (4) dated/saturated (3) ndated (2) urated in upper 30cm (12in) (1) onstormwater)
3	23	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	
		4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Check all disturbances observed	
	23 btotal this pa	Recovered (6) Recovering (3) Recent or no recovery (1) Recent or no re	uatic bed removal
last revised	1 Lening	ry 200 r jjin	

Site: WL-004		Rater(Rater(s): BS		Date: 11/4/17
su	23 btotal first pa	nge			
-10	13	Metric 5. Special Wetlan	ds.		
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-u Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or	angered species (10) usage (10)	
-3	10	Metric 6. Plant communi	ities, int	erspersion, microto	pography.
max 20 pts.	subtotal	J 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	71 acres) contiguous area
		Aquatic bed	1	Present and either comprises sma	
		0 Emergent		vegetation and is of moderate q	uality, or comprises a
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sign	nificant part of wetland's
		0 Mudflats		vegetation and is of moderate q	uality or comprises a small
		Open water		part and is of high quality	
		0 Other	3	Present and comprises significant	part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	
		Select only one.		•	
		High (5)	Narrative D	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predoming	nance of nonnative or
		Moderate (3)		disturbance tolerant native spec	ies
		Moderately low (2)	mod	Native spp are dominant compone	ent of the vegetation,
		Low (1)		although nonnative and/or distu	rbance tolerant native spp
		✓ None (0)		can also be present, and specie	s diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally v	v/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant nativ	e spp absent or virtually
		✓ Moderate 25-75% cover (-3)		absent, and high spp diversity a	nd often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
		Nearly absent <5% cover (0)			
		Absent (1)	Mudflat and	d Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	res)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	acres)
		0 Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		0 Standing dead >25cm (10in) dbh		•	
		Amphibian breeding pools	Microtopog	raphy Cover Scale	
		<u> </u>	0	Absent	
			1	Present very small amounts or if r of marginal quality	more common
			2	Present in moderate amounts, but quality or in small amounts of his	
			3	Present in moderate or greater an	
			-	and of highest quality	
10					

Site: W	L-005	Ra	ter(s): BS	Date: 11/4/17	
2	2	Metric 1. Wetland Area	a (size).		
max 6 pts.	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) ✓ 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)			
1	3	Metric 2. Upland buffe	rs and surroundi	ng land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)			
20	23	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (lake or	ater (3) stream) (5) 3d. I e and assign score.	Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) Duration inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) c and average. point source (nonstormwater) filling/grading road bed/RR track dredging other	
14	37	Metric 4. Habitat Alter			
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or of the None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)			
			e check and average. neck all disturbances observed mowing grazing clearcutting	shrub/sapling removal herbaceous/aquatic bed removal sedimentation	
	37	ge	selective cutting woody debris removal toxic pollutants	dredging farming nutrient enrichment	
last revised	1 Februa	ry 2001 jjm			

Site: WL-005 Rater		s): BS	Date: 11/4/17
		-	
37			
subtotal first p	_ age		
0 37	Metric 5. Special Wetland	ds.	
max 10 pts. subtotal	Check all that apply and score as indicated.		
	Bog (10) Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5) Lake Erie coastal/tributary wetland-ui	nrestricted by	trology (10)
	Lake Erie coastal/tributary wetland-re		
	Lake Plain Sand Prairies (Oak Openi	ings) (10)	
	Relict Wet Prairies (10) Known occurrence state/federal threa	atened or enda	angered species (10)
	Significant migratory songbird/water	fowl habitat or	usage (10)
	Category 1 Wetland. See Question 1		
6 43	Metric 6. Plant communi	ties, int	erspersion, microtopography.
max 20 pts. subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
·	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	0 Aquatic bed	1	Present and either comprises small part of wetland's
	1 Emergent 1 Shrub		vegetation and is of moderate quality, or comprises a significant part but is of low quality
	0 Forest	2	Present and either comprises significant part of wetland's
	0 Mudflats		vegetation and is of moderate quality or comprises a small
	0 Open water 0 Other	3	part and is of high quality Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.	3	vegetation and is of high quality
	Select only one.		
	High (5) Moderately high(4)	Narrative D	escription of Vegetation Quality Low spp diversity and/or predominance of nonnative or
	✓ Moderate (3)	IOW	disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
	None (0) 6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
	✓ Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat and	d Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	0 Vegetated hummucks/tussucks 2 Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more
	1 Standing dead >25cm (10in) dbh		riigii 4iia (9.00 acres) oi iiiore
	1 Amphibian breeding pools		raphy Cover Scale
		0	Absent Present very small amounts or if more common
		ı	of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
43			and of highest quality

Site: WL-006	Rater(s): BS	Date: 11/4/17		
2 2	Metric 1. Wetland Area (size).			
max 6 pts. subtotal				
5 7	Metric 2. Upland buffers and surrounding land use) <u>.</u>		
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)			
15 22	Metric 3. Hydrology.			
max 30 pts. subtotal	Precipitation (1) Part of wetland. Part of riparian Perennial surface water (lake or stream) (5) 3d. Duration inundation/s 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inund seasonally inunded seasonally inunded seasonally inunded seasonally sate seasonally sate seasonally sate seasonally sate seasonally sate seasonally sate seasonally inunded seasonally sate seasonally inunded seasonally inunded seasonally sate seasonally inunded seasonally sate seasonal	plain (1) n/lake and other human use (1) /upland (e.g. forest), complex (1) or upland corridor (1) aturation. Score one or dbl check inently inundated/saturated (4) lated/saturated (3) ndated (2) urated in upper 30cm (12in) (1) onstormwater)		
12 34	Metric 4. Habitat Alteration and Development.			
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
	4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Check all disturbances observed			
34 subtotal this pa	Recovered (6) Recovering (3) Recent or no recovery (1) Recovered (6) Recovering (3) Recent or no recovery (1) Recent	uatic bed removal		

Site: WL-006		Rater(Date: 11/4/17	
	34]		
su	btotal first pa] age		
0	34	Metric 5. Special Wetlan	ds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water	estricted hydro ings) (10) atened or enda	ology (5) angered species (10)
		Category 1 Wetland. See Question		- , ,
4	38	Metric 6. Plant communi	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale. O Aquatic bed 1 Emergent	0 1	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		0 Forest 0 Mudflats	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small
		0 Open water		part and is of high quality
		0 Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.		
		High (5)		escription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderate (3) Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		✓ Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) ✓ Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)		d Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		0 Vegetated hummucks/tussucks 1 Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh		riigii 4na (3.00 acres) oi more
		1 Amphibian breeding pools	Microtopoo	graphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
	Ī		3	Present in moderate or greater amounts
38				and of highest quality

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in

Case No(s). 18-1024-EL-BGN

Summary: Application Exhibit G, Part 3 of 4 electronically filed by Mr. MacDonald W Taylor on behalf of Willowbrook Solar I, LLC