Exhibit P Wetland and Waterbody Delineation Report

Stantec

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Birch Solar Project

Wetland and Waterbody Delineation Report

January 23, 2021

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Sign-off Sheet

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1.0 INTRODUCTION

1.1 PURPOSE

Lightsource bp is proposing to construct the Birch Solar Project, a 300-megawatt alternating current solar energy facility, composed of photovoltaic solar modules mounted on a racking system, inverters, an electrical collection system transferring power from the inverters to a new project substation, and internal access roads with perimeter fence, securing the area (the Project). The Project area includes 2,345 acres of existing agriculture and forested areas, located approximately 3 miles southwest of the City of Lima, Ohio. The Project is located in Shawnee Township, Allen County, and Logan Township, Auglaize County, Ohio (Figure 1, Appendix A).

Stantec Consulting Services Inc. (Stantec) was retained by Lightsource bp to conduct a delineation of potential waters of the United States (WOUS), including wetlands, waterbodies, and potentially isolated wetlands within the Project area. The purpose of this delineation was to identify potentially jurisdictional features present within the Project area.

Stantec completed the delineation of wetlands and waterbodies on August 3 - 6, September 3 - 4, and December 16 - 17, 2020. The information contained in this report reflects the current site conditions that were observed during the field delineation.

1.2 LOCATION OF PROJECT

The Project is located in Shawnee Township, Allen County, and Logan Township, Auglaize County, Ohio (Appendix A, Figure 1). The Project area is depicted on the Cridersville, Ohio U.S. Geological Survey (USGS) 7.5-minute series topographic map and the approximate center point of the Project area in latitude and longitude coordinates is 40.672303°N, -84.203592°W, respectively. The Project area is located in the Sims Run – Auglaize River watershed (HUC 12: 041000070203) that drains into the Auglaize River, the Little Ottawa River watershed (HUC 12: 041000070401) that drains into the Little Ottawa River, and the Twomile Creek watershed (HUC 12: 041000070201) that drains into Twomile Creek.

2.0 METHODS

2.1 WETLAND DELINEATION

Prior to completing the survey, a desktop review of the Project area was conducted using the Cridersville, Ohio USGS 7.5 Minute Series topographic maps (Appendix A, Figure 1), U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Surveys of Allen and Auglaize counties, Ohio (USDA 2005, 1981; Appendix A, Figure 2), the National Wetlands Inventory map (USFWS 2019) (Appendix A, Figure 3), and aerial imagery mapping were reviewed to assess the likelihood of occurrence and probable location of wetlands and waterbodies within the Project area.



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Following this desktop review, Stantec conducted field surveys within the Project area on August 3 - 6, September 3 – 4, and December 16 – 17, 2020. Wetland boundaries were assessed using the "Routine On-site Determination Method" as described in the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (USACE 2010). As of August 17, 1991, the USACE was directed to utilize the USACE Wetland Delineation Manual (USACE Environmental Laboratory 1987) to identify and delineate wetlands potentially subject to regulation under Section 404 of the Clean Water Act (CWA). Wetlands were classified according to "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin et al. 1979). In this classification system, wetland habitats are divided into five major systems including: (1) Marine, (2) Estuarine, (3) Lacustrine, (4) Palustrine, and (5) Riverine. Each of these systems is further divided into subsystems, classes, and subclasses. Vegetative communities were inventoried to assess the dominant plant species in each of four vegetative layers: trees, saplings/shrubs, herbs, and woody vines. The wetland indicator status for each of the dominant species was obtained using the 2016 National Wetland Plant List (Lichvar et al. 2016). The wetland soil indicators were obtained using the Munsell soil-color chart (Munsell Color 2009) and the hydric soil field indicators (USDA, NRCS 2010). The uppermost wetland boundary and sampling points were identified and surveyed using a handheld Global Positioning System (GPS) unit and mapped with Geographical Information System (GIS) software. Stantec collected data and completed relevant assessment forms, which included: USACE Wetland Determination Forms (WDF), and Ohio Rapid Assessment Method v 5.0 forms (ORAM; Mack 2001). Datasheets are provided in Appendix B.

2.2 STREAM DELINEATION

Streams that demonstrated a continuously defined channel (bed and bank), ordinary high water mark (OHWM), and the disturbance of terrestrial vegetation were delineated within the Project area, per the protocols outlined in the USACE's Guidance on Ordinary High Water Mark Identification (Regulatory Guidance Letter, No. 05-05; USACE 2005). Delineated streams were classified as ephemeral, intermittent, or perennial per definition in the 85 Federal Register 22250 (effective June 22, 2020). Functional assessment of streams within the Project area was based on completion of the Ohio Environmental Protection Agency's (OEPA) Headwater Habitat Evaluation Index (HHEI; OEPA 2018) and/or Qualitative Habitat Evaluation Index (QHEI; OEPA 2006). Datasheets are provided in Appendix B. The centerline of each waterway, or both banks for streams 15 feet or wider, were identified and surveyed using a sub-meter accurate handheld GPS unit and mapped with GIS software.

2.3 OPEN WATER DELINEATION

Open water boundaries were assessed using the definition described in the "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin et al. 1979) which includes wetland and deepwater habitats with most of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30 percent areal coverage; and (3) total area exceeds 20 acres (8 hectares [ha]). Similar wetland and deepwater habitats totaling less than 20 acres (8 ha) are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up most or part of the boundary, or if the water depth in the deepest part of the basin exceeds 6.6 feet (2 meters) at low water (estimated).



3.0 OVERVIEW OF PROJECT AREA

3.1 GEOLOGY AND TOPOGRAPHY

The Project lies within the Till Plains section of the Central Lowland physiographic province. The Project lies within the Central Ohio Clayey Till Plain region, which is characterized by: (1) a surface of clayey till; (2) well-defined moraines with intervening flat-lying ground moraine and intermorainal lake basins; (3) no boulder belts; (4) silt-, clay-, and till-filled lake basins; and (5) few large streams and limited sand and gravel outwashes. The geology of the region consists of clayey, high-lime Wisconsinan-age till from a northeastern source and lacustrine materials over Lower Paleozoic-age carbonate rocks. The eastern side of the region is more shales. Elevation ranges from 700 – 1,150 feet with moderate relief (ODGS 1998).

3.2 CLIMATE

The average winter temperature in Allen County is 28 degrees Fahrenheit (°F), and the average daily minimum temperature is 20°F. The average summer temperature is 72°F, and the average daily maximum temperature is 83°F. Precipitation in Allen County averages 35.98 inches per year. Usually 55% of the annual rainfall occurs between May and October (USDA 2005). The average winter temperature in Auglaize County is 28°F, and the average winter daily minimum temperature is 20°F. The average summer temperature is 72°F and the average daily maximum temperature is 83°F. Precipitation in Auglaize County averages 20 inches per year. Usually 55% of the annual rainfall occurs between April and September (USDA 1981).

3.3 SOILS

The Soil Survey of Allen and Auglaize Counties, Ohio (USDA 2005, USDA 1981) and the Natural Resources Conservation Service (NRCS) Web Soil Survey were consulted to assess soil types within the Project area (USDA, NRCS 2010). A copy of the soil map is included in Appendix A, Figure 2. Soils within the Project area with respective acreages and percentages are included in Table 1. Nine soils listed within the Project area were considered to be hydric as shown in Table 1.

Table 1. Soil Types Known to Occur within the Birch Solar Project Area, Allen and Auglaize Counties, Ohio

Map Unit Symbol	Map Unit Name	Hydric?	Acres in the Project Area	Percent within Project Area
AkA	Alvada loam, 0 to 1 percent slopes	Yes	3.86	0.16%
Ble1A1	Blount silt loam, end moraine, 0 to 2 percent slopes	No*	36.00	1.54%
Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	No*	453.40	19.34%
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	No*	38.96	1.66%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	No*	256.69	10.95%
BrA	Blount-Jenera complex, 0 to 3 percent slopes	No*	3.92	0.17%



Map Unit Symbol	Map Unit Name	Hydric?	Acres in the Project Area	Percent within Project Area
СуА	Cygnet loam, 0 to 3 percent slopes	No*	18.49	0.79%
DmA	Digby loam, 0 to 2 percent slopes	No*	2.52	0.11%
DmB	Digby loam, 2 to 6 percent slopes	No	13.20	0.56%
GaB	Gallman loam, 2 to 6 percent slopes	No	89.69	3.83%
GaC	Gallman loam, 6 to 12 percent slopes	No	4.97	0.21%
Gwd5C2	Glynwood clay loam, 6 to 12 percent slopes, eroded	No	7.61	0.32%
Gwe5B2	Glynwood clay loam, end moraine, 2 to 6 percent slopes, eroded	No*	22.65	0.97%
Gwg5B2	Glynwood clay loam, ground moraine, 2 to 6 percent slopes, eroded	No*	10.16	0.43%
Gwg5C2	Glynwood clay loam, ground moraine, 6 to 12 percent slopes, eroded	No*	0.15	0.01%
GkB	Glynwood loam, 2 to 6 percent slopes	No*	13.76	0.59%
Gwe1B1	Glynwood silt loam, end moraine, 2 to 6 percent slopes	No*	101.71	4.34%
Gwg1B1	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	No*	14.96	0.64%
HkA	Haskins loam, 0 to 2 percent slopes	No*	4.99	0.21%
HkB	Haskins loam, 2 to 6 percent slopes	No*	8.80	0.38%
HrA	Houcktown loam, 0 to 2 percent slopes	No*	8.86	0.38%
HrB	Houcktown loam, 2 to 6 percent slopes	No*	46.72	1.99%
НрВ	Houcktown sandy loam, 2 to 4 percent slopes	No*	5.01	0.21%
HsA	Houcktown silt loam, 0 to 2 percent slopes	No*	1.74	0.07%
HsB	Houcktown silt loam, 2 to 4 percent slopes	No	1.91	0.08%
HuC2	Houcktown-Glynwood complex, 6 to 12 percent slopes, eroded	No*	3.53	0.15%
MbA	Medway silt loam, 0 to 2 percent slopes, occasionally No*		3.49	0.15%
Mk	Millgrove clay loam	Yes	31.83	1.36%
PmA / Pt	Pewamo silty clay loam, 0 to 1 percent slopes	Yes	527.66	22.50%
ReA	Rensselaer loam, till substratum, 0 to 1 percent slopes	Yes	33.94	1.45%
Sb / SbA	Saranac silty clay loam, 0 to 1 percent slopes, rarely flooded	Yes	104.21	4.44%
Sc / ScA	Saranac silty clay loam, till substratum, 0 to 1 percent slopes, frequently flooded	Yes	15.76	0.67%
SfB	Shawtown loam, 2 to 6 percent slopes	No	23.41	1.00%
So	Sloan silty clay loam, frequently flooded	Yes	18.10	0.77%
TkA	Thackery loam, sandy substratum, 0 to 2 percent slopes	No	103.60	4.42%



Map Unit Symbol	Map Unit Name		Acres in the Project Area	Percent within Project Area
ThB	Thackery sandy loam, sandy substratum, 1 to 3 percent slopes	No*	61.16	2.61%
WdA	Westland clay loam, 0 to 1 percent slopes	Yes	195.54	8.34%
WeA	WeA Westland-Rensselaer complex, 0 to 1 percent slopes Yes		51.72	2.21%
	Total Acreage in Pro	2,344.67	100.00%	

^{*}Contains Hydric inclusions

4.0 RESULTS

4.1 EXISTING CONDITIONS

Upland habitat within the Project area consists of agriculture, new field, old field, fence row, and second growth deciduous forests. The agriculture habitat was dominated by corn (Zea mays), soybean (Glycine max), and winter wheat (Triticum aestivum). The new field habitat consisted of red clover (Trifolium pratense), crab grass (Digitaria sanguinalis), barnyard grass (Echinochola crus-galli), yellow foxtail (Setaria pumila), English plantain (Plantago lanceolata), common dandelion (Taraxacum officinale), and Queen Ann's lace (Daucus carota). The old field habitat was dominated by common teasel (Dipsacus fullonum), chicory (Cichorium intybus), common dandelion, Canada thistle (Cirsium arvense), common ragweed (Ambrosia artemisiifolia), Canada goldenrod (Solidago canadensis), tall fescue (Festuca arundinacea), and nodding foxtail (Setaria faberi). The fence row consisted of common hackberry (Celtis occidentalis), white oak (Quercus alba), sugar maple (Acer saccharum), Ohio buckeye (Aesculus glabra), and white mulberry (Morus alba) in the overstory. Virginia creeper (Parthenocissus quinquefolia) and common grapevine (Vitis vinifera) were dominant fence row vine layer. Canada goldenrod, black raspberry (Rubus idaeus), and curly dock (Rumex crispus) dominated the herbaceous layer of the fence row habitat. The overstory of the second growth deciduous forest habitat was dominated by common hackberry, sugar maple, silver maple (Acer saccharinum), American elm (Ulmus americana), northern red oak (Quercus rubra), and pin oak (Quercus palustris). The shrub layer of the second growth deciduous forest consisted of honeysuckle (Loniceria maackii), black raspberry, poison ivy (Toxicodendron radicans), and American elm.

4.2 WETLAND HABITAT

Three wetlands were identified within the Project area, totaling approximately 0.50 acres (Appendix A, Figure 4). Appendix B contains the WDF and ORAM forms for the wetlands identified within the Project area. Representative photographs of the wetlands are provided in Appendix C. The wetlands are described below and summarized in Table 2.



Wetland 1

Wetland 1 is a palustrine forested (PFO) wetland approximately 0.24 acre in size within the Project area. The functional assessment (ORAM) of Wetland 1 yielded a score of 34 and identifies this wetland as a Category 2 wetland, indicating it is a wetland of "poor-fair" quality. Wetland 1 is potentially hydrologically isolated. A WDF (SP01) was completed, and the first soil horizon was 6 inches of loam with a chroma matrix of 10YR 2/1. The following 10 inches were silt loam with a chroma matrix of 10YR 4/2 and redox concentrations in the matrix (10R 4/6), meeting the Depleted Matrix (F3) hydric soil indicator. Primary hydrological indicators included oxidized rhizospheres on living roots. Vegetation identified within the sample plot was dominated by hydrophytic vegetation including American elm (FACW), silver maple (FACW) in the tree stratum, green ash (*Fraxinus pennsylvanica*; FACW) in the sapling/shrub stratum, and silver maple (FACW) in the herbaceous stratum.

Wetland 2

Wetland 2 is a palustrine scrub/shrub (PSS) wetland approximately 0.03 acre in size within the Project area. The functional assessment (ORAM) of Wetland 2 yielded a score of 16 and identifies this wetland as a Category 1 wetland, indicating it is a wetland of "poor" quality. Wetland 2 is potentially jurisdictional due to its physical hydrological connection to Stream 4. A WDF (SP04) was completed, and the first soil horizon was 2 inches of mucky loam with a low chroma matrix 10YR 2/1. The following 14 inches were clay loam with a low chroma matrix of 10YR 5/1 and redox concentrations in the matrix (10R 4/6), meeting the Depleted Matrix (F3) hydric soil indicator. Primary hydrological indicators included saturation. Vegetation identified within the sample plot was dominated by hydrophytic vegetation including black willow (*Salix nigra*; OBL) in the sapling/shrub stratum and reed canary grass (*Phalaris arundinacea*; FACW) in the herbaceous stratum.

Wetland 3

Wetland 3 is a PFO wetland approximately 0.23 acre in size within the Project area. The functional assessment (ORAM) of Wetland 3 yielded a score of 41 and identifies this wetland as a Category 2 wetland, indicating it is a wetland of "fair-moderate" quality. Wetland 3 is potentially hydrologically isolated. A WDF (SP08) was completed, the first soil horizon was 8 inches of silty clay with a low chroma matrix of 10YR 4/2. The following 8 inches was silty clay with a chroma matrix of 10YR 4/1 and redox concentrations in the matrix (10YR 4/6), meeting the Depleted Matrix (F3) hydric soil indicator. Secondary hydrological indicators included geomorphic position and FAC-neutral test. Vegetation identified within the sample plot was dominated by hydrophytic vegetation including swamp white oak (*Quercus bicolor*, FACW) in the tree stratum, green ash (FACW) in the tree and sapling/shrub stratum, and Gray's sedge (*Carex grayi*; OBL) and sweet woodreed (*Cinna arundinacea*; FACW) in the herbaceous stratum.



Table 2. Potential Wetlands Identified in the Birch Solar Project Area, Allen and Auglaize Counties, Ohio

Wetland Name	Latitude	Longitude	Cowardin Classification	ORAM Score	ORAM Regulatory Category	Total Acres in Project Area
Wetland 1	40.676896	-84.192615	PFO	34	2	0.24
Wetland 2	40.680703	-84.195156	PSS	16	1	0.03
Wetland 3	40.673821	-84.217605	PFO	41	2	0.23
	0.50					

4.3 STREAM HABITAT

Fourteen streams were identified within the Project area, totaling approximately 27,007 linear feet (Appendix A, Figure 4). Appendix B contains the QHEI and HHEI datasheets. Representative photographs of the streams are provided in Appendix C. The streams are described below and summarized in Table 3.

Stream 1

Stream 1 is an intermittent stream with approximately 823 linear feet within the Project area. The functional assessment (HHEI) of Stream 1 yielded a score of 51, indicating it is a Class II PHWH stream. The stream had a bankfull width of 10 feet and a bankfull depth of 4 feet and had a moist channel with isolated pools at the time of site visit. Substrates observed were primarily silt and clay. Stream 1 drains into Twomile Creek outside the Project area.

Stream 2

Stream 2 is an intermittent stream with approximately 1,103 linear feet within the Project area. The functional assessment (HHEI) of Stream 2 yielded a score of 56, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 12 feet and a bankfull depth of 4 feet and was flowing at the time of site visit. Substrates observed were primarily silt and clay. Stream 2 drains into Twomile Creek outside the Project area.

Stream 3

Stream 3, Little Ottawa River, is a perennial stream with approximately 153 linear feet within the Project area. The functional assessment (QHEI) of Stream 3 yielded a score of 44.25, indicating it is a "fair" quality stream. The stream had a bankfull width of 40 feet and a bankfull depth of 5 feet and was flowing at the time of site visit. The substrates observed were primarily sand and gravel. Stream 3 drains into the Ottawa River outside Project area.



Stream 4

Stream 4 is an ephemeral stream with approximately 1,355 linear feet within the Project area. The functional assessment (HHEI) of Stream 4 yielded a score of 47, indicating it as Modified Class II PHWH stream. The stream had a bankfull width of 12 feet and a bankfull depth of 5 feet and had moist channels with isolated pools at the time of site visit. The substrates observed were primarily silt and clay. Stream 4 drains into Stream 5 within the Project area.

Stream 5

Stream 5 is a perennial stream with approximately 5,672 linear feet within the Project area. The functional assessment (HHEI) of Stream 5 yielded a score of 53, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 14 feet and a bankfull depth of 3 feet and was flowing at the time of site visit. The substrates observed were primarily silt and clay. Stream 5 drains into Twomile Creek within the Project area.

Stream 6

Stream 6 is an ephemeral stream with approximately 1,675 linear feet within the Project area. The functional assessment (HHEI) of Stream 6 yielded a score of 40, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 16 feet and a bankfull depth of 6 feet and had a dry channel at the time of site visit. The substrates observed were primarily silt and clay. Stream 6 drains into Stream 5 within the Project area.

Stream 7

Stream 7 is an ephemeral stream with approximately 1,733 linear feet within the Project area. The functional assessment (HHEI) of Stream 7 yielded a score of 45, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 10 feet and a bankfull depth of 3 feet and was flowing at the time of site visit. The substrates observed were primarily silt and clay. Stream 7 drains into the Stream 5 within the Project area.

Stream 8

Stream 8 is an intermittent stream with approximately 239 linear feet within the Project area. The functional assessment (HHEI) of Stream 8 yielded a score of 56, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 12 feet and a bankfull depth of 6 feet and was D- flowing at the time of site visit. The substrates observed were primarily silt and clay. Stream 8 drains into Twomile Creek outside Project area.

Stream 9

Stream 9, Twomile Creek, is a perennial stream with approximately 5,000 linear feet within the Project area. The stream crosses the Project area in two separate locations and a data sheet was taken for each stretch. The functional assessment (QHEI) of Stream 9 yielded a score of 34.75, indicating it is a "poor" quality stream. The stream had a bankfull width of 30 feet and a bankfull



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depth of 8 feet and was flowing at the time of site visit. The substrate observed was primarily silt and sand.

The second segment of Stream 9, Twomile Creek functional assessment (QHEI) of Stream 9 yielded a score of 50.5, indicating it is a fair" quality stream. The stream had a bankfull width of 35 feet and a bankfull depth of 6 feet and was flowing at the time of site visit. The substrate observed was primarily sand and silt. Stream 9 drains into the Auglaize River outside the Project area.

Stream 10

Stream 10 is a perennial stream with approximately 3,433 linear feet within the Project area. The functional assessment (HHEI) of Stream 10 yielded a score of 55, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 10 feet and a bankfull depth of 3 feet and was flowing at the time of site visit. The substrates observed were primarily silt and clay. Stream 10 flows into Twomile Creek outside Project area.

Stream 11

Stream 11 is an intermittent stream with approximately 1,861 linear feet within the Project area. The functional assessment (HHEI) of Stream 11 yielded a score of 50, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 6 feet and a bankfull depth of 3 feet and was flowing at the time of site visit. The substrates observed were primarily silt and clay. Stream 11 flows into Stream 10 within the Project area.

Stream 12

Stream 12 is a perennial stream with approximately 931 linear feet within the Project area. The functional assessment (HHEI) of Stream 12 yielded a score of 56, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 12 feet and a bankfull depth of 3 foot and was flowing at the time of site visit. The substrates observed were silt and clay. Stream 12 flows into Twomile Creek outside the Project area.

Stream 13

Stream 13 is a perennial stream with approximately 2,120 linear feet within the Project area. The functional assessment (HHEI) of Stream 13 yielded a score of 49, indicating it is a Modified Class II PHWH stream. The stream had a bankfull width of 5 feet and a bankfull depth of 2 feet and was flowing at the time of site visit. The substrate observed was primarily sand and muck. Stream 13 drains into the Twomile Creek outside the Project area.

Stream 14

Stream 14 is an intermittent stream with approximately 909 linear feet within the Project area. The functional assessment (QHEI) of Stream 14 yielded a score of 59, indicating it is a "good" quality stream. The Stream had a bankfull width of 5 feet and a bankfull depth of 2.5 feet and was flowing



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at the time of the site visit. The substrate observed was primarily gravel and sand. Stream 14 drains into Twomile Creek outside the Project area.

Table 3. Potential Streams Identified in the Birch Solar Project Area, Allen and Auglaize Counties, Ohio

Stream Name	Latitude	Longitude	OHWM Width (feet)	OHWM Depth (feet)	Classification	Evaluation Method	Score	Total Linear feet in Project Area
Stream 1	40.68684	-84.18950	2.5	0.75	Intermittent	HHEI	51	823
Stream 2	40.68312	-84.18845	4	1	Intermittent	HHEI	56	1103
Stream 3 (Little Ottawa River)	40.68200	-84.17508	25	2.5	Perennial	QHEI	44.25	153
Stream 4	40.68145	-84.19661	3	1	Ephemeral	HHEI	47	1,355
Stream 5	40.67474	-84.20314	8	1	Perennial	HHEI	53	5,672
Stream 6	40.67331	-84.20141	6	1.5	Ephemeral	HHEI	40	1,675
Stream 7	40.67742	-84.20611	3	1	Ephemeral	HHEI	45	1,733
Stream 8	40.68336	-84.21275	2	0.5	Intermittent	HHEI	56	239
Stream 9	40.67054	-84.2164	18	3	Davannial	OUEI	34.75	F 000
(Twomile Creek)	40.66257	-84.2295	25	1	Perennial	QHEI	50.5	5,000
Stream 10	40.67288	-84.23205	2.5	0.5	Perennial	HHEI	55	3,433
Stream 11	40.67616	-84.23332	2	0.5	Intermittent	HHEI	50	1,861
Stream 12	40.65864	-84.23117	4	1.25	Perennial	HHEI	56	931
Stream 13	40.66667	-84.18646	3	0.5	Perennial	HHEI	49	2,120
Stream 14	40.65728	-84.18543	4	0.5	Intermittent	QHEI	59	909
			·		Total Linear	Feet in Proje	ct Area	27,007

4.4 OPEN WATERS

One open water feature, a pond, was identified within the Project area, totaling approximately 0.69 acre (Appendix A, Figure 4). Representative photographs of the open water feature are provided in Appendix C. The open water is summarized in Table 4.

Table 4. Potential Open Water Features Identified in the Birch Solar Project Area, Allen and Auglaize Counties, Ohio

Open Water Name	Classification	Latitude	Longitude	Total Acreage in Project Area
Open Water 1	PUB	40.676905	-84.212956	0.69
	0.69			



5.0 CONCLUSION

Stantec conducted a delineation of potential WOUS within the Project area located in Shawnee Township, Allen County and Logan Township, Auglaize County, Ohio. The purpose and objective of the wetland and waterbody delineation was to identify the extent and spatial arrangement of potential jurisdictional wetlands and waterbodies within the Project area.

One potentially USACE-jurisdictional wetland and eleven potentially USACE-jurisdictional streams were identified within the Project area. A total of approximately 0.03 acre of Category 1 PSS wetland was identified in the Project area that is potentially USACE-jurisdictional. The remaining wetlands delineated within the Project area, including approximately 0.47 acre of Category 2 PFO wetlands, are potentially isolated wetlands and would be under the jurisdiction of the OEPA. These wetlands have no direct connection to other potentially USACE-jurisdictional features.

Fourteen streams, with a total of 17,310 linear feet of perennial stream, 4,935 linear feet of intermittent stream, and 4,762 linear feet of ephemeral stream were delineated within the Project area. The perennial and intermittent streams, totaling 22,245 linear feet within the Project area, are potentially WOUS and therefore likely USACE-jurisdictional streams. Stream 4, Stream 6, and Stream 7, totaling 4,762 linear feet within the Project area, were determined to have a potentially ephemeral flow regime. The ephemeral flow regime of these three streams means they may not be USACE-jurisdictional and, therefore, would be regulate by OEPA.

Stantec's opinion regarding the presence/absence of jurisdictional WOUS and isolated wetlands is preliminary. Only the USACE can provide an official determination of the presence and extent of jurisdictional WOUS. Wetlands that are considered WOUS are subject to regulation under Section 404 of the CWA and the jurisdictional regulatory authority lies with the USACE. Additionally, the OEPA has regulatory authority over isolated wetlands under Ohio Revised Code 6111.021. Stantec recommends that Lightsource bp contact the USACE Buffalo District for final jurisdictional review and concurrence with Stantec's opinion regarding the presence/absence of WOUS within the Project area prior to construction activities associated with this Project.



6.0 REFERENCES

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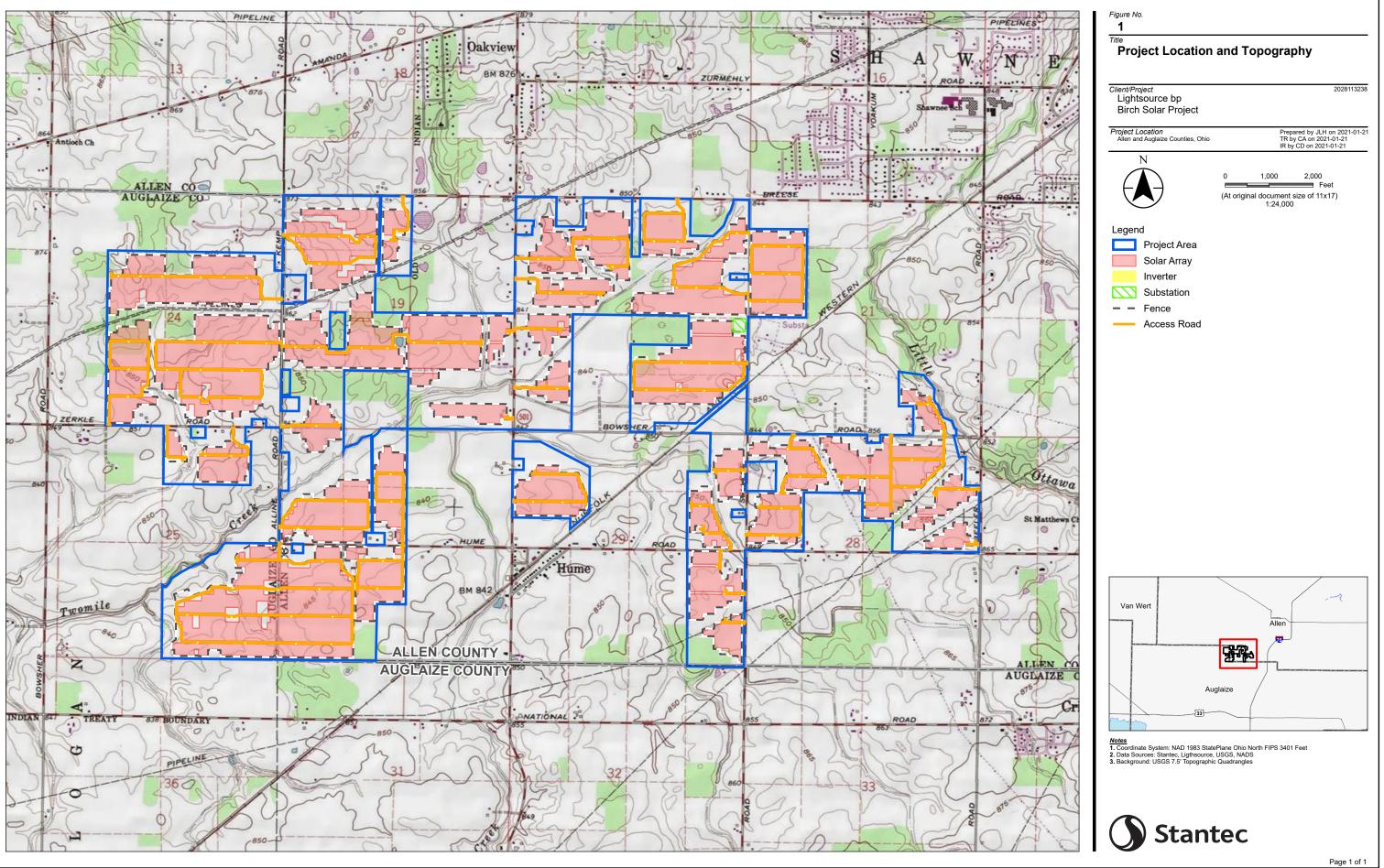




Appendix A FIGURES

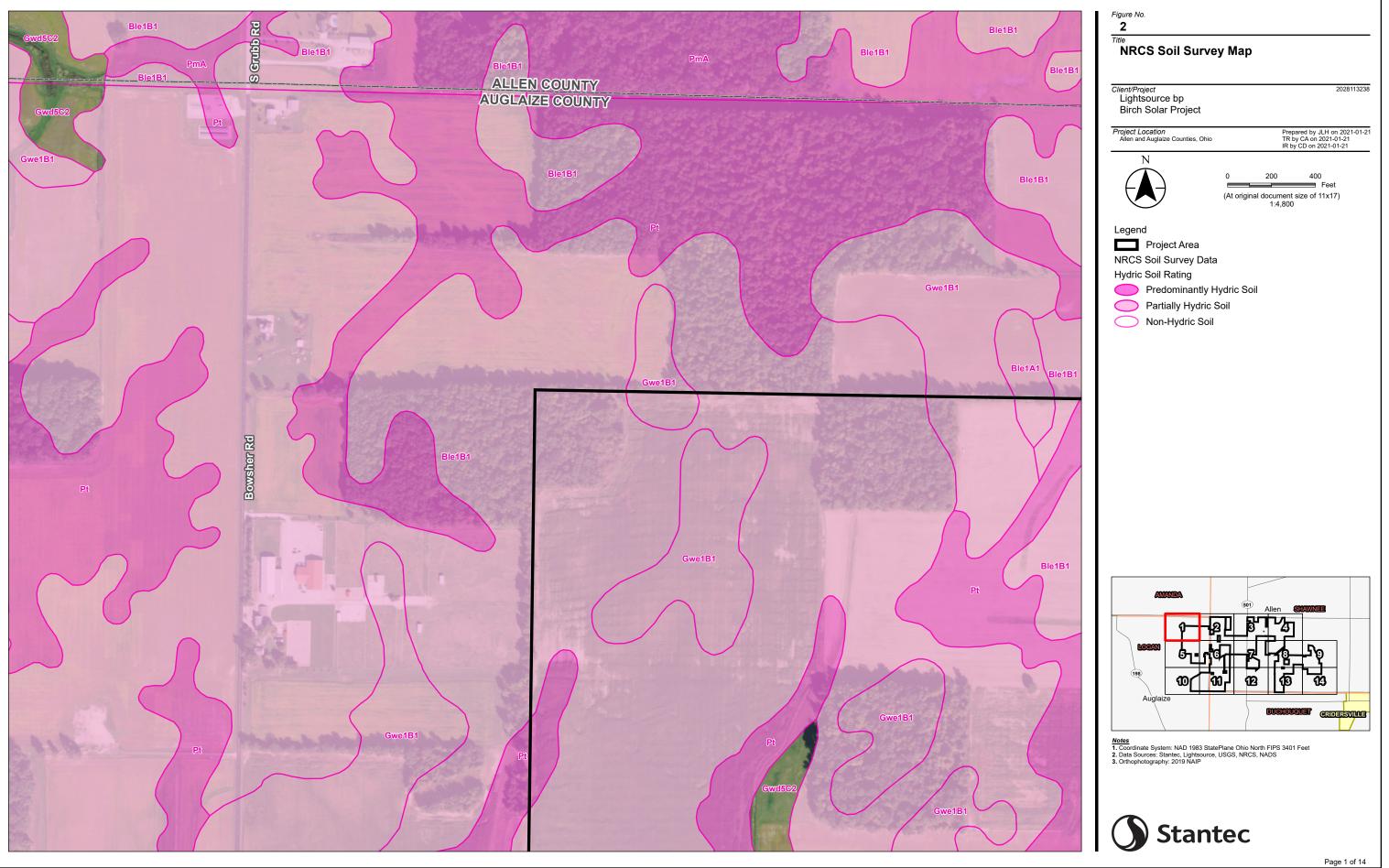
A.1 FIGURE 1 – PROJECT LOCATION AND TOPOGRAPHY MAP

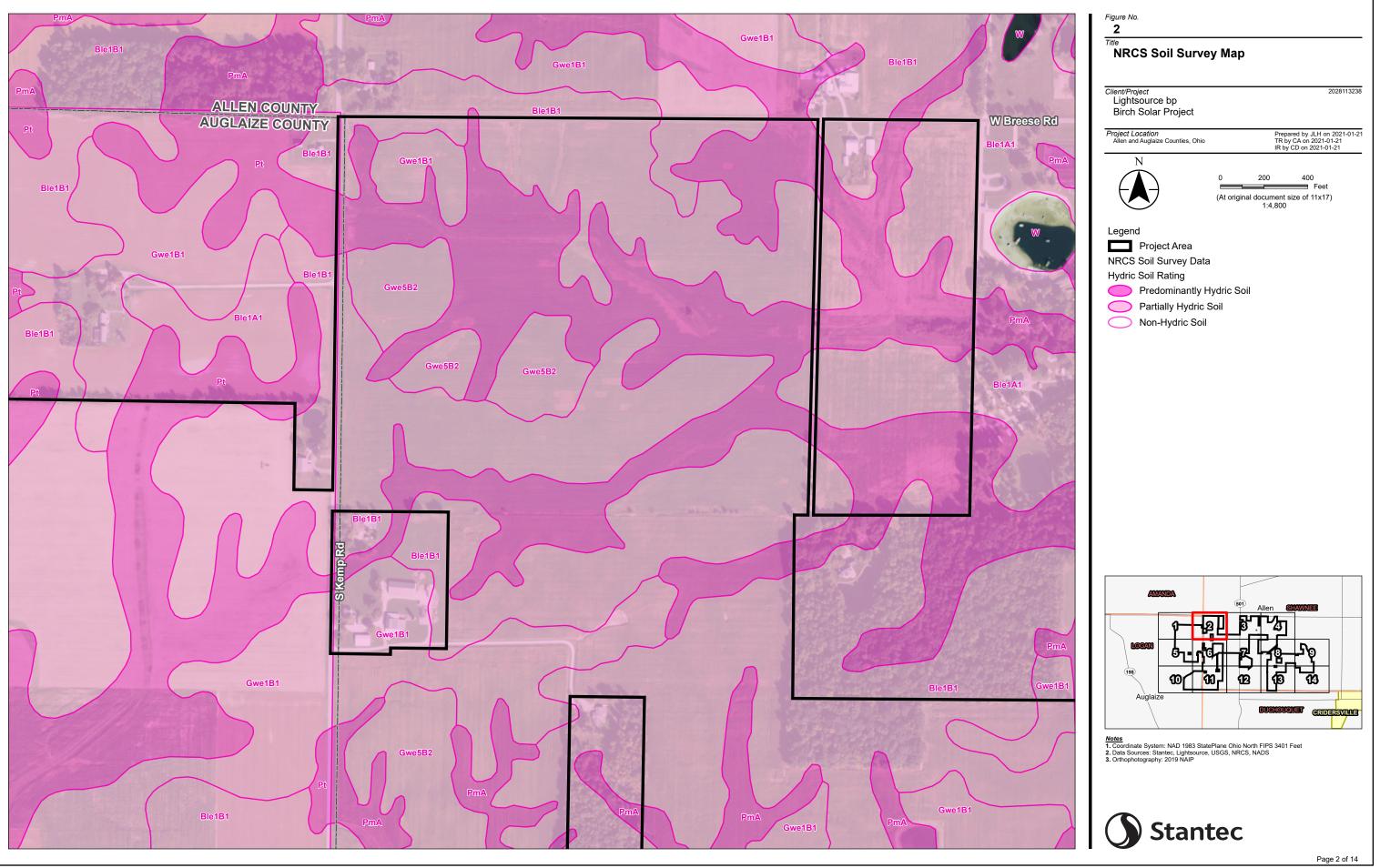


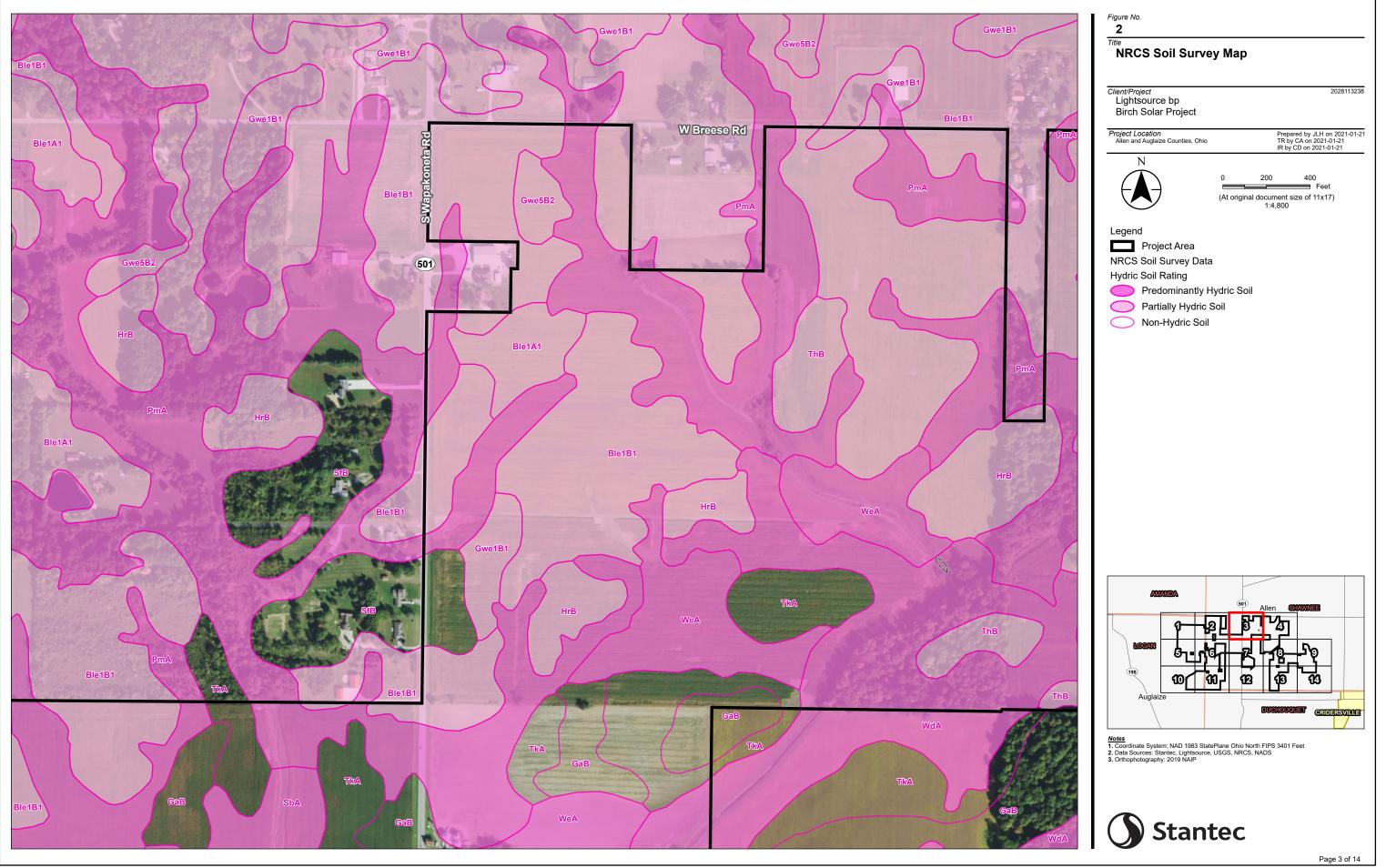


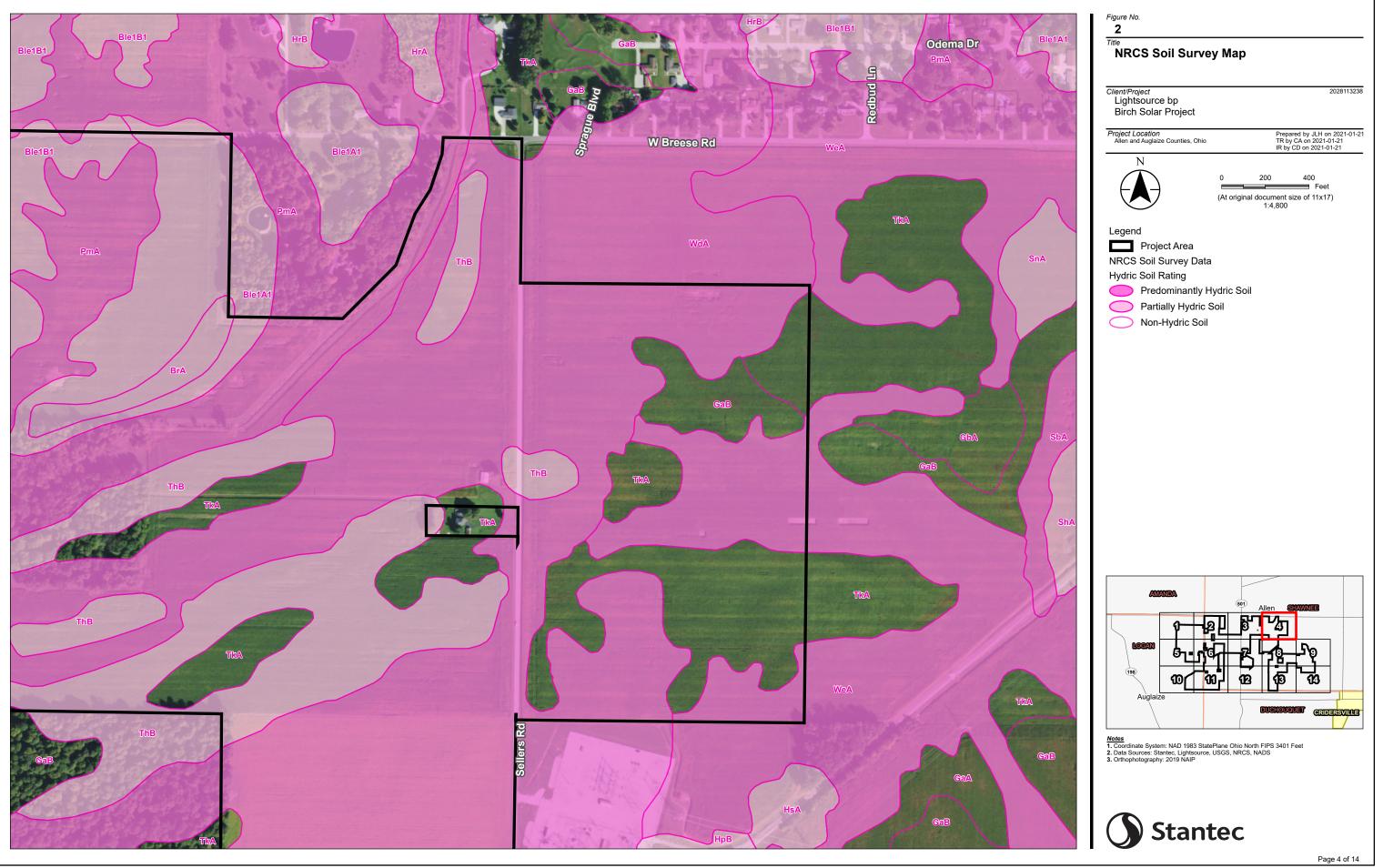
A.2 FIGURE 2 – NRCS SOIL SURVEY DATA AND HYDRIC RATINGS MAP

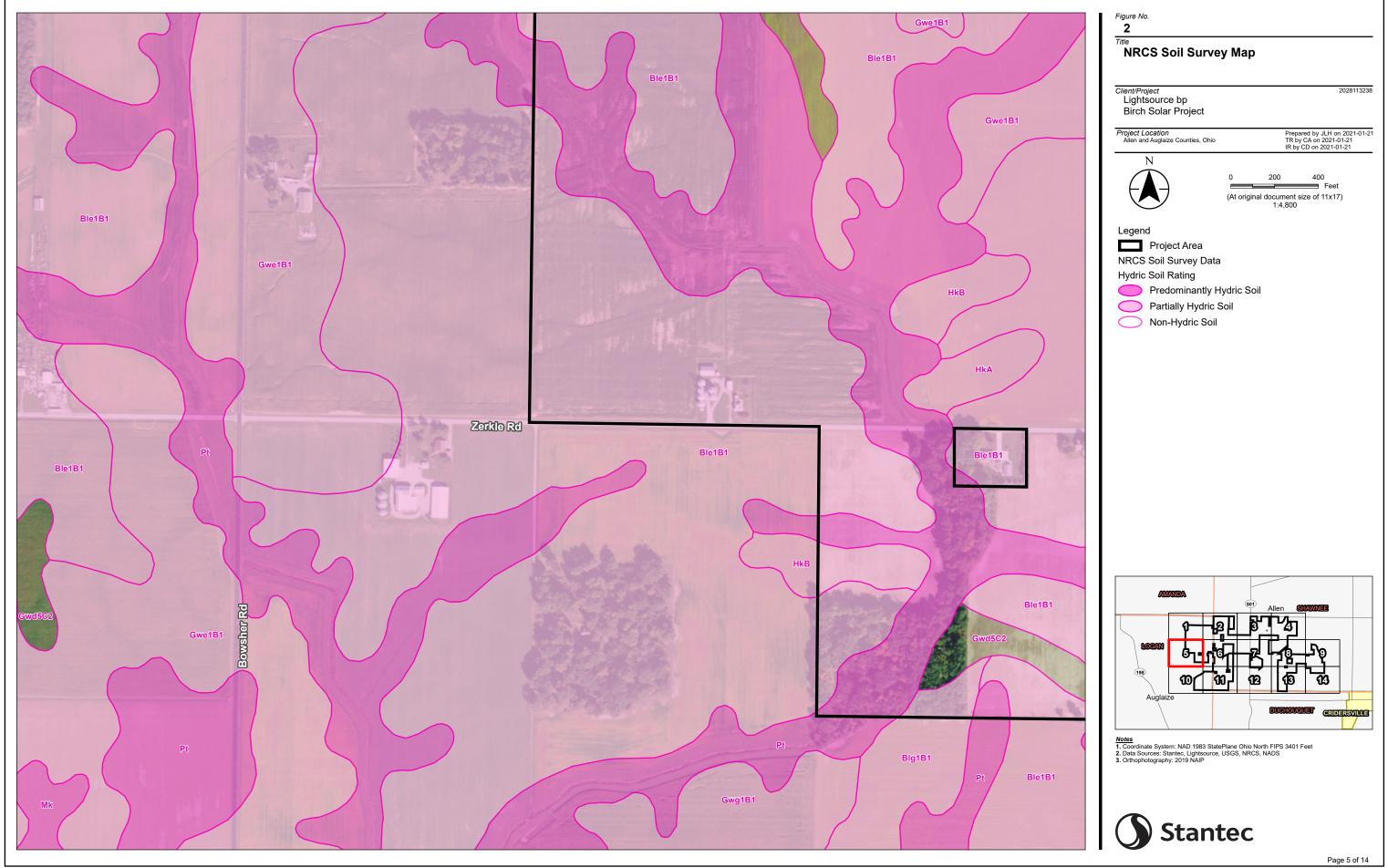


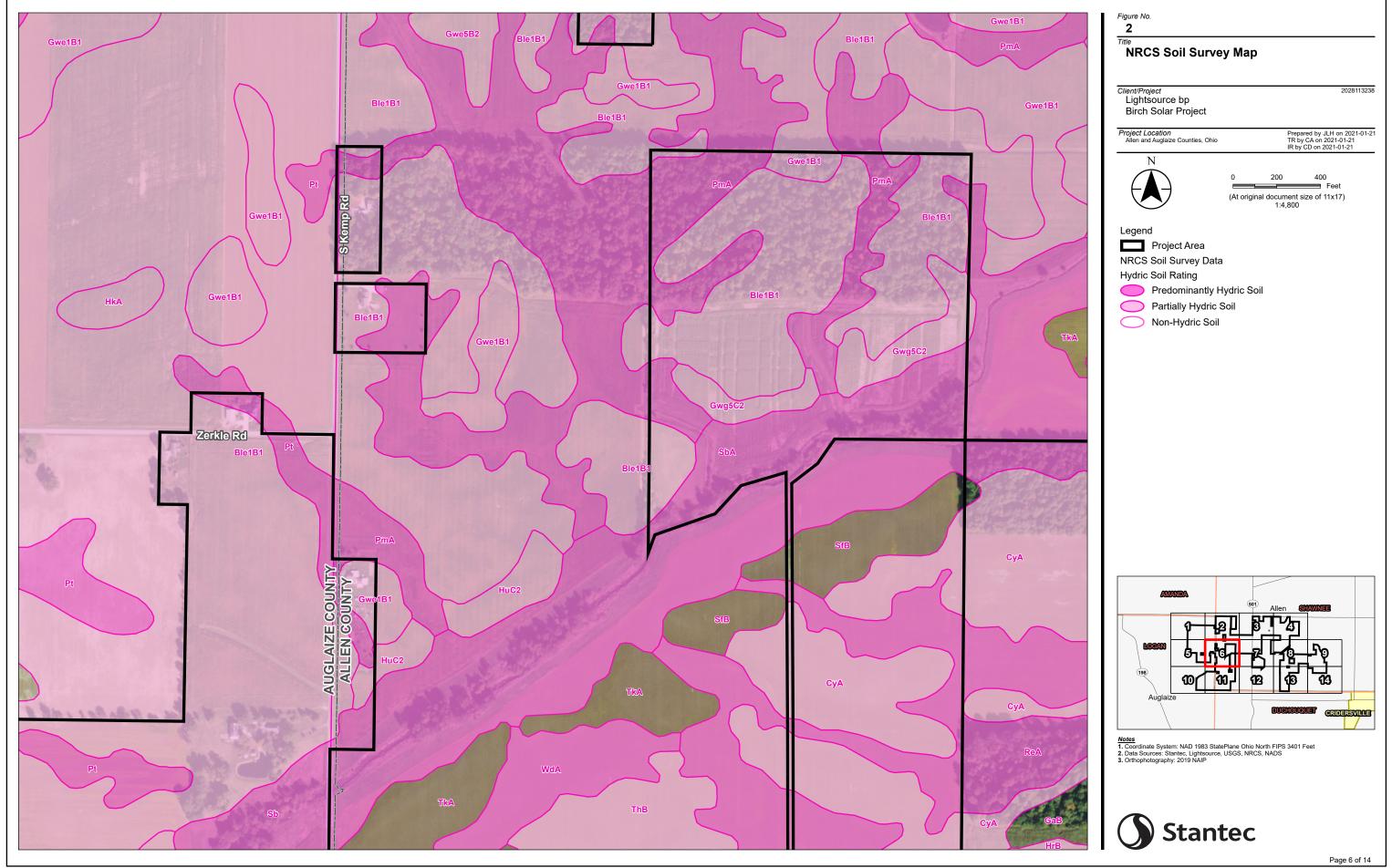


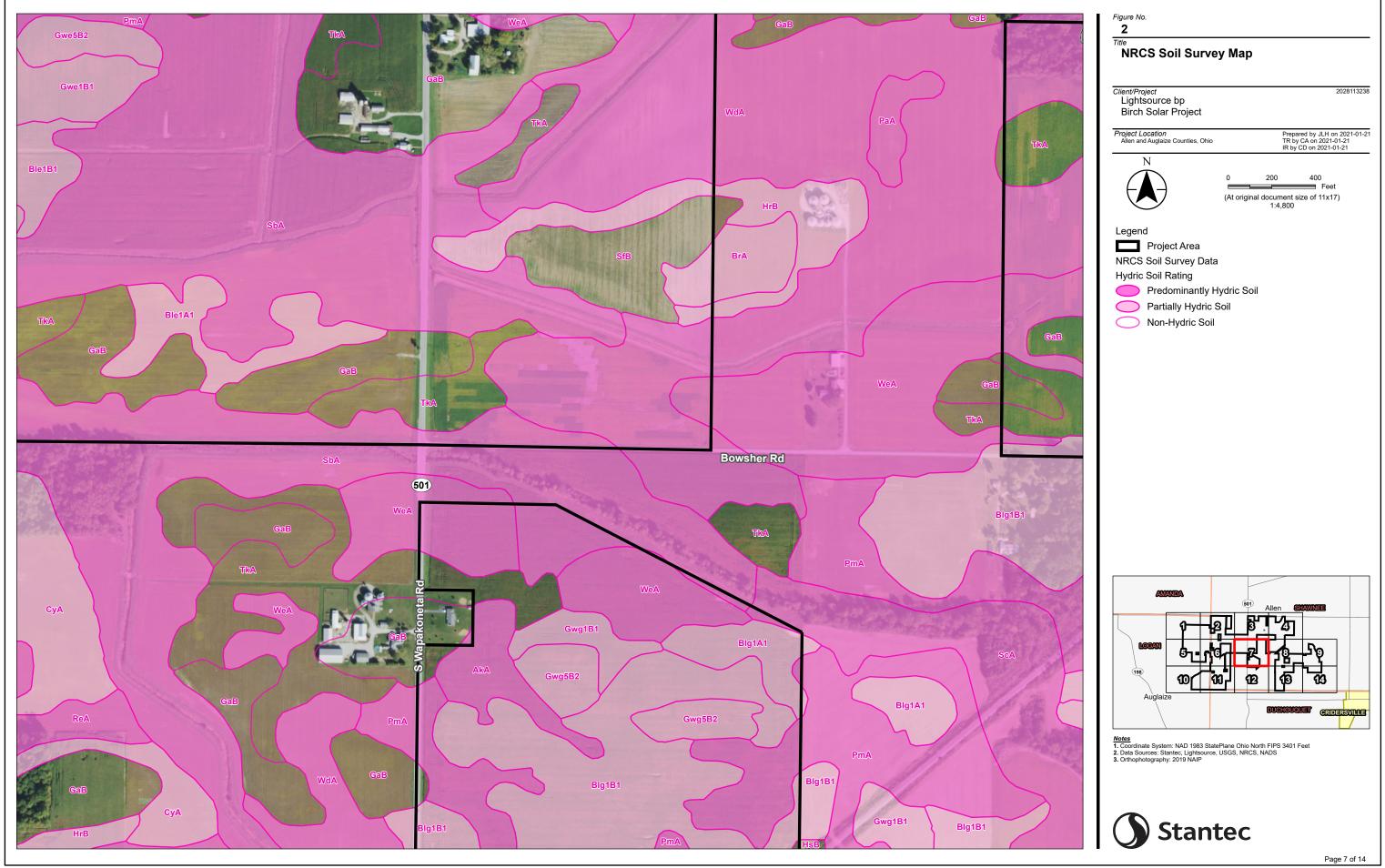


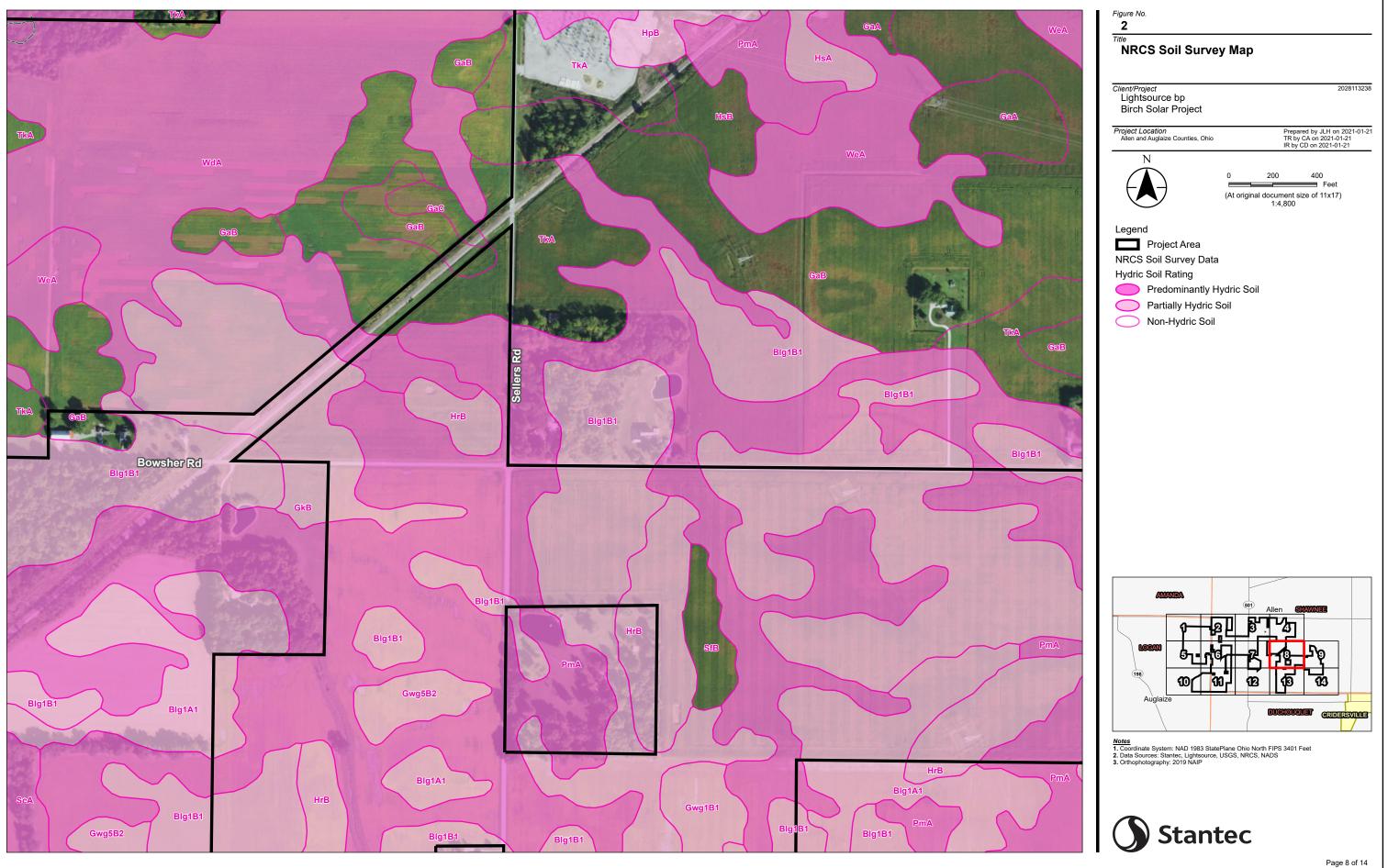


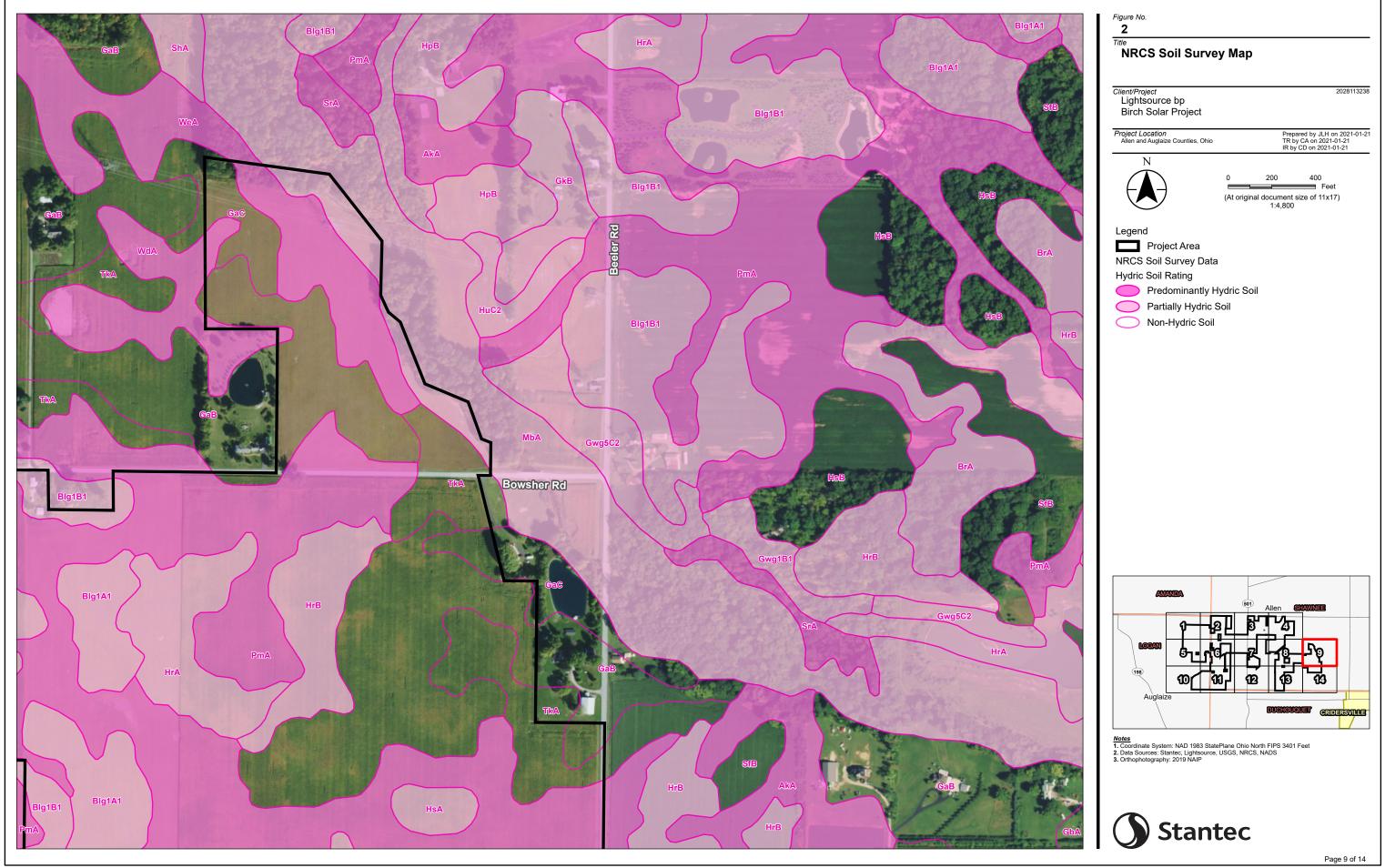


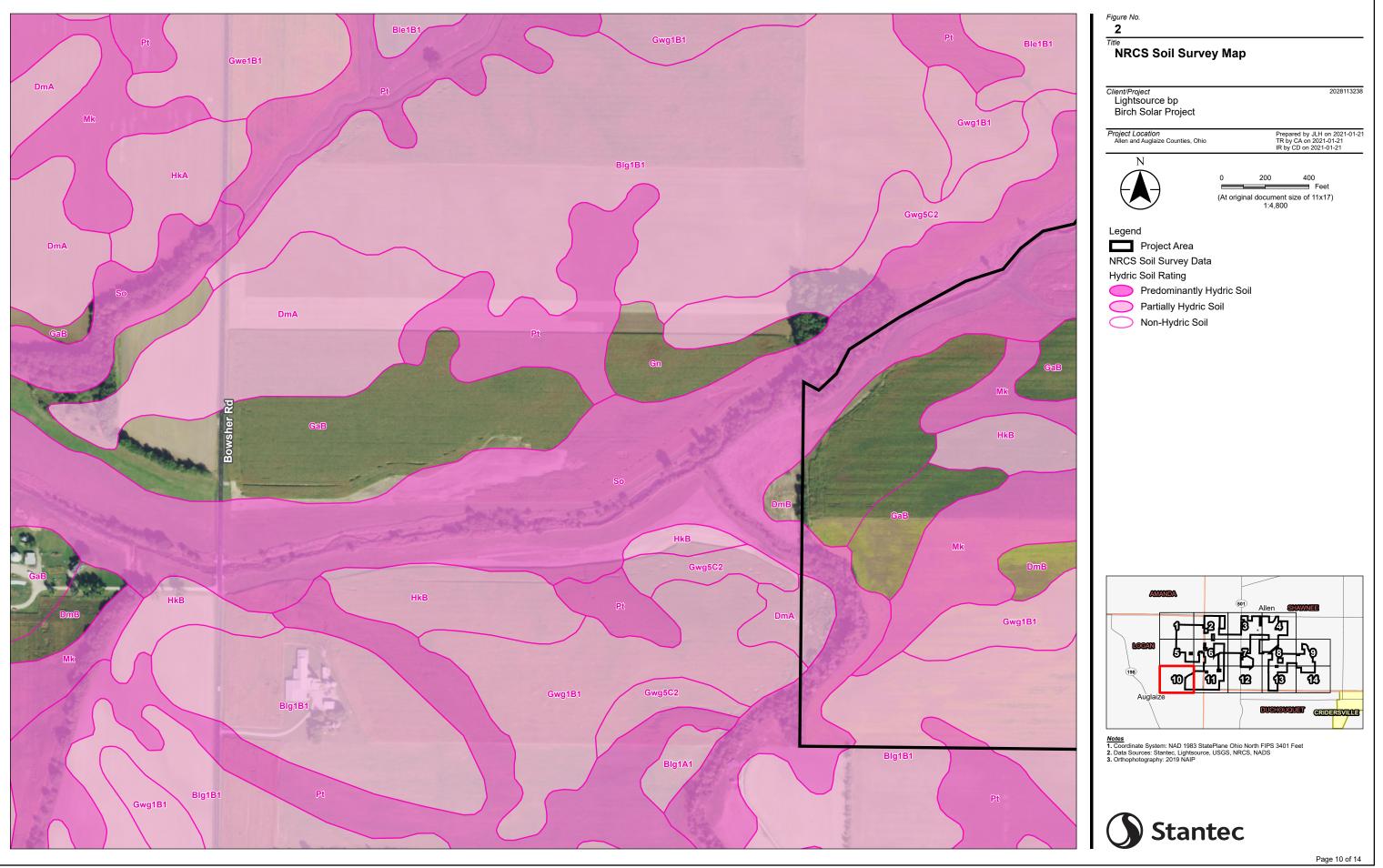


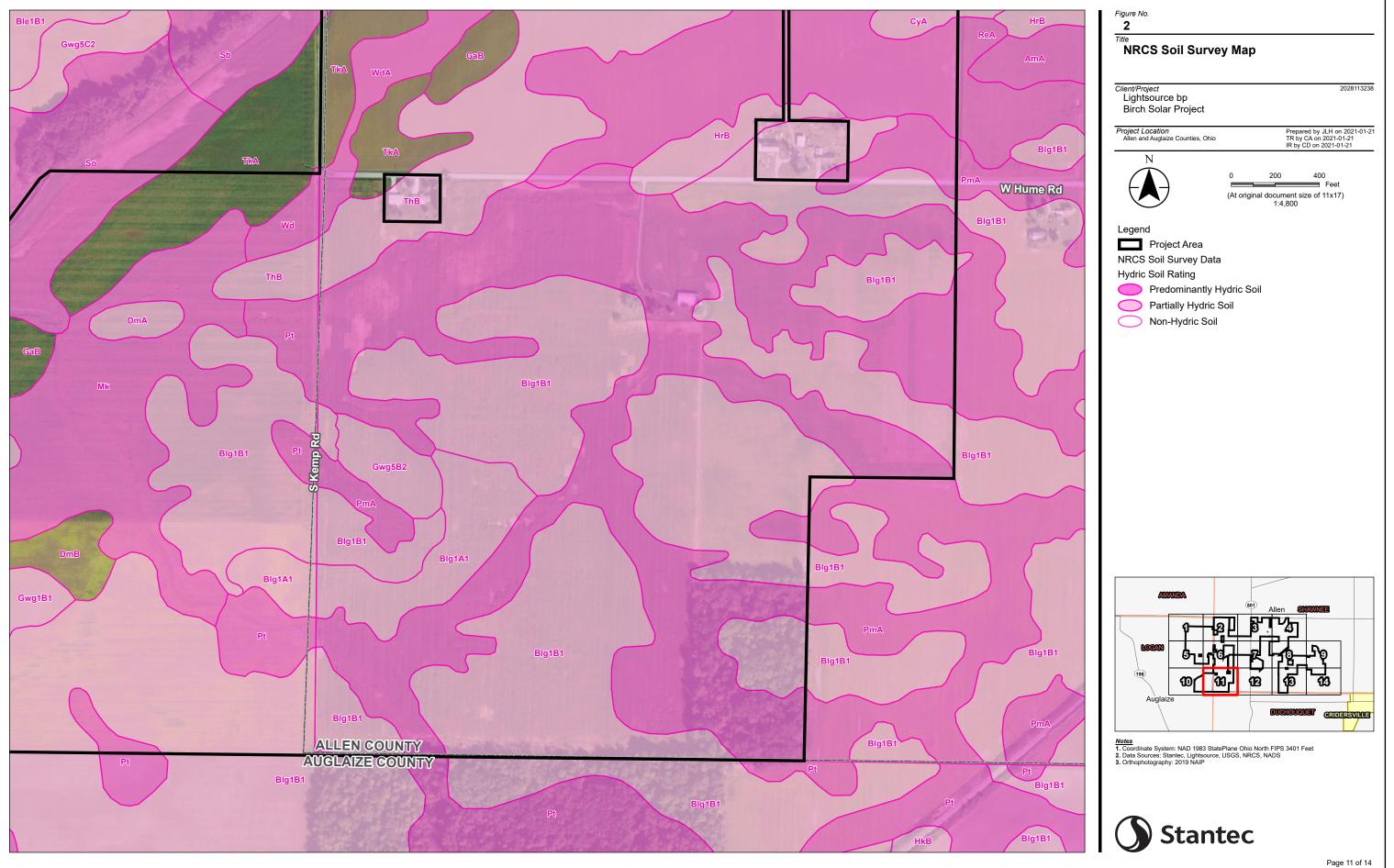


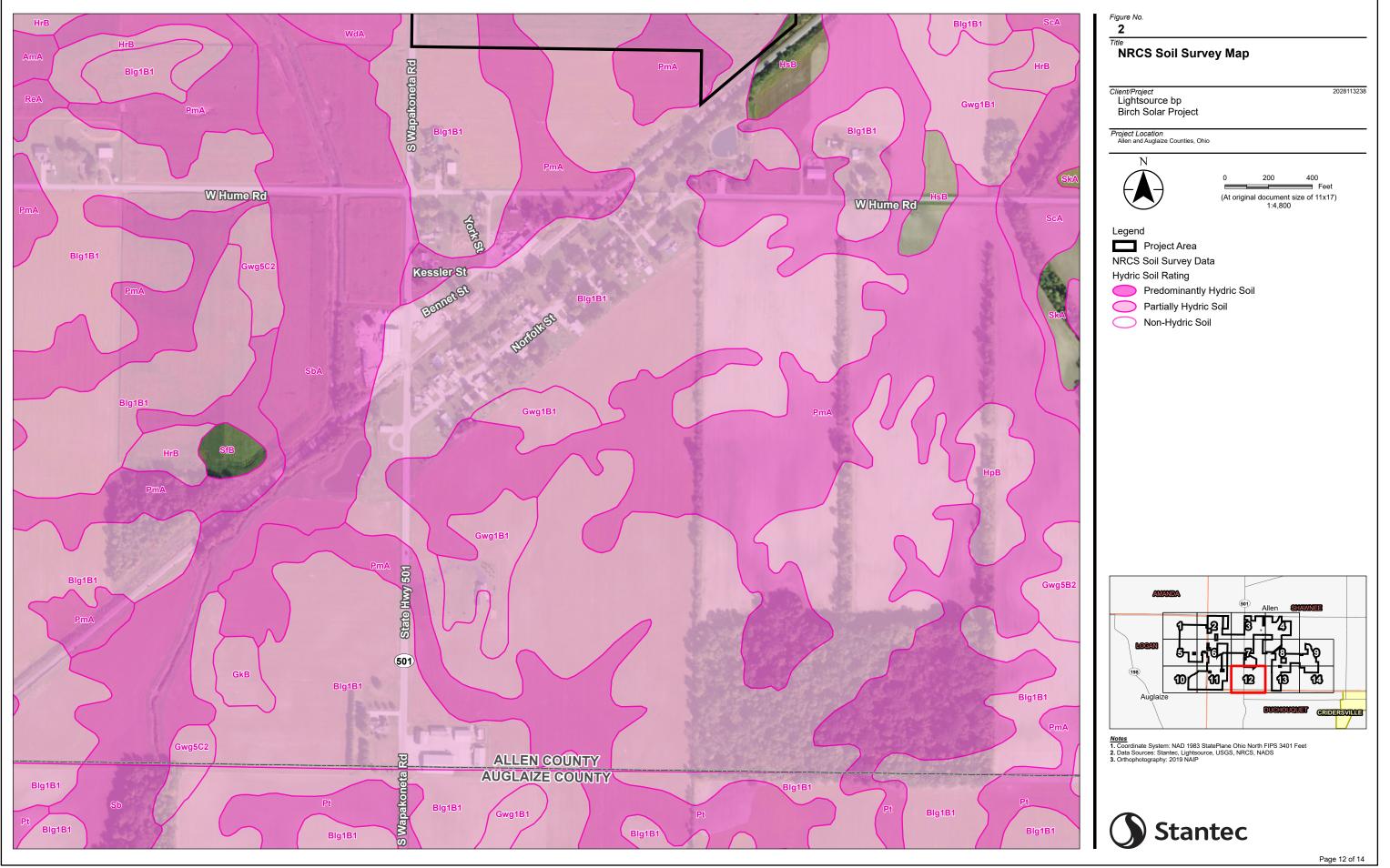


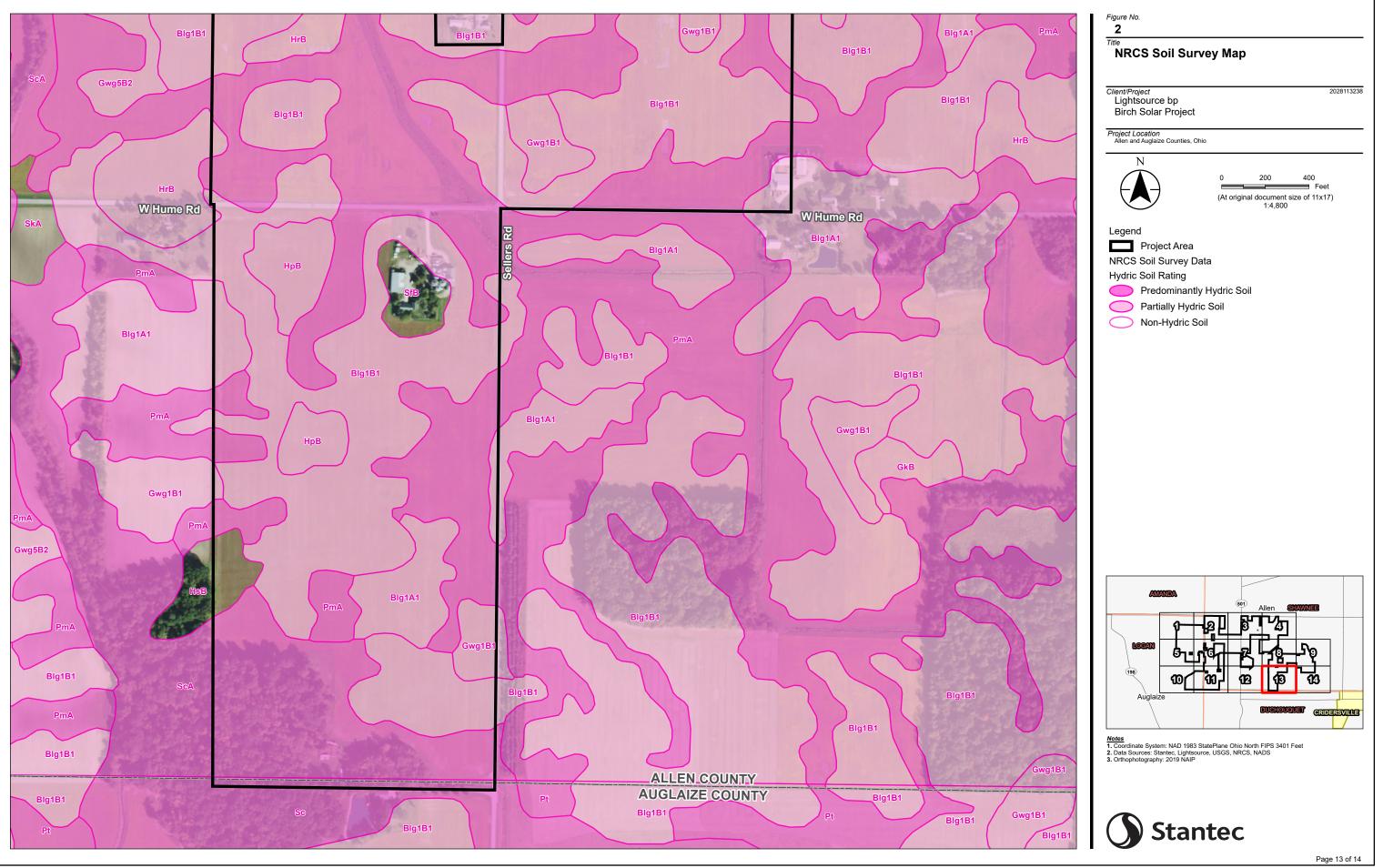


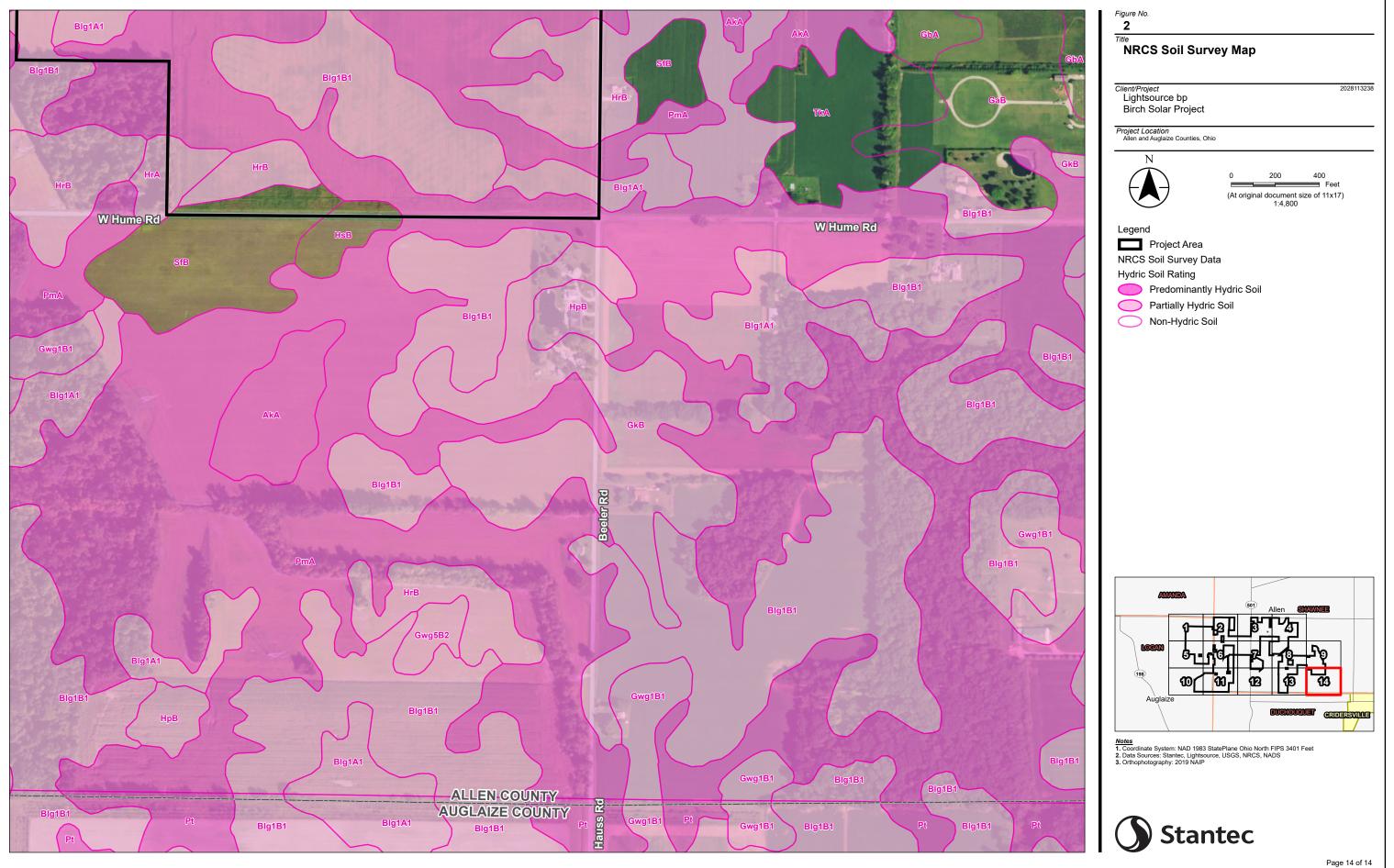












A.3 FIGURE 3 – NATIONAL WETLANDS INVENTORY MAP





National Wetlands Inventory Map

Client/Project
Lightsource bp
Birch Solar Project

2028113238

Project Location
Allen and Auglaize Counties, Ohio

Prepared by JLH on 2021-01-21 TR by CA on 2021-01-21 IR by CD on 2021-01-21



(At original document size of 11x17) 1:4,800

Project Area

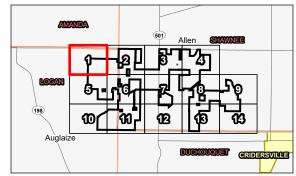
National Wetlands Inventory Feature

National Hydrography Dataset

Perennial Stream

/ \ , Intermittent Stream

Waterbody



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Lightsource, USGS, USFWS, NADS
3. Orthophotography: 2019 NAIP

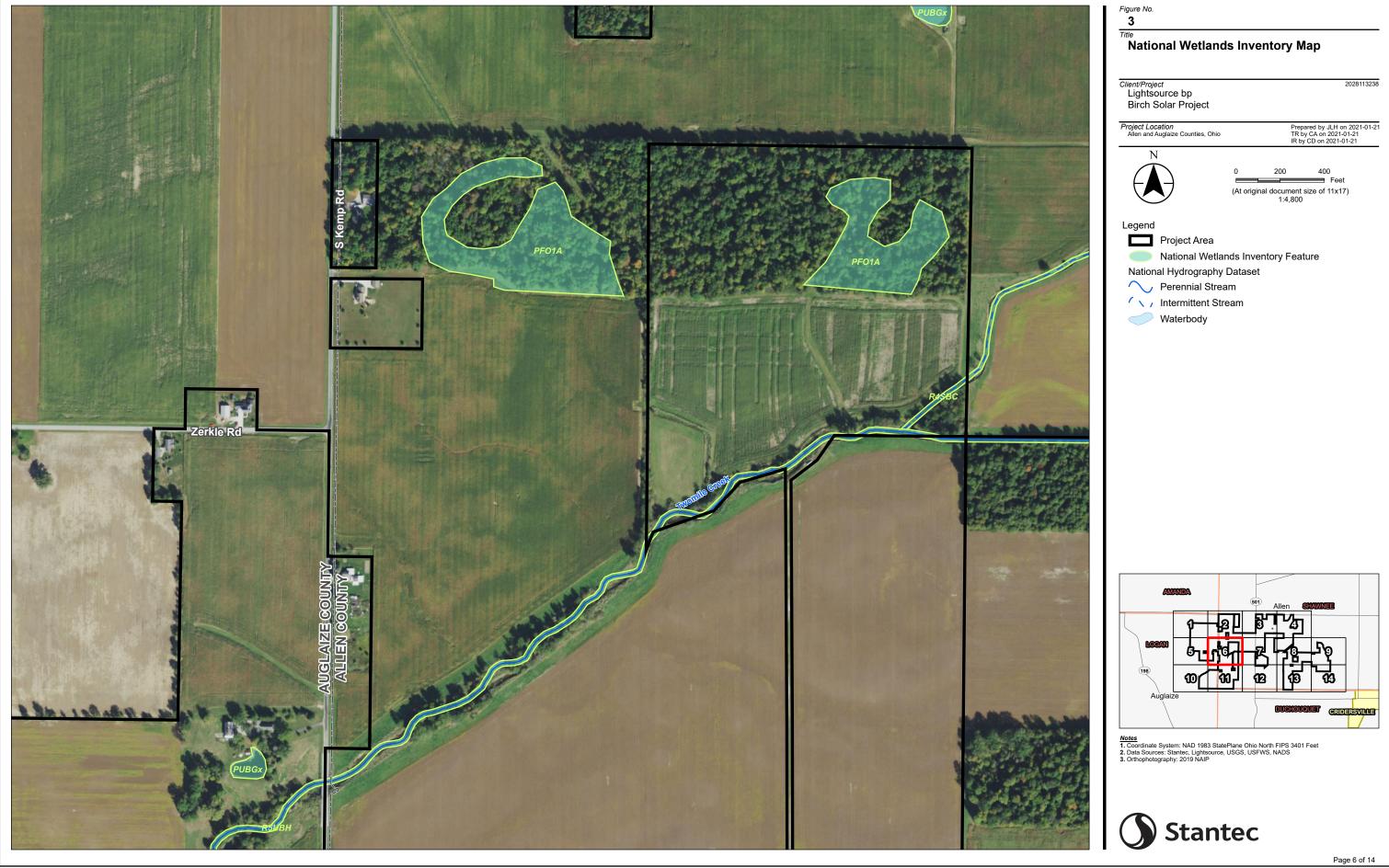
















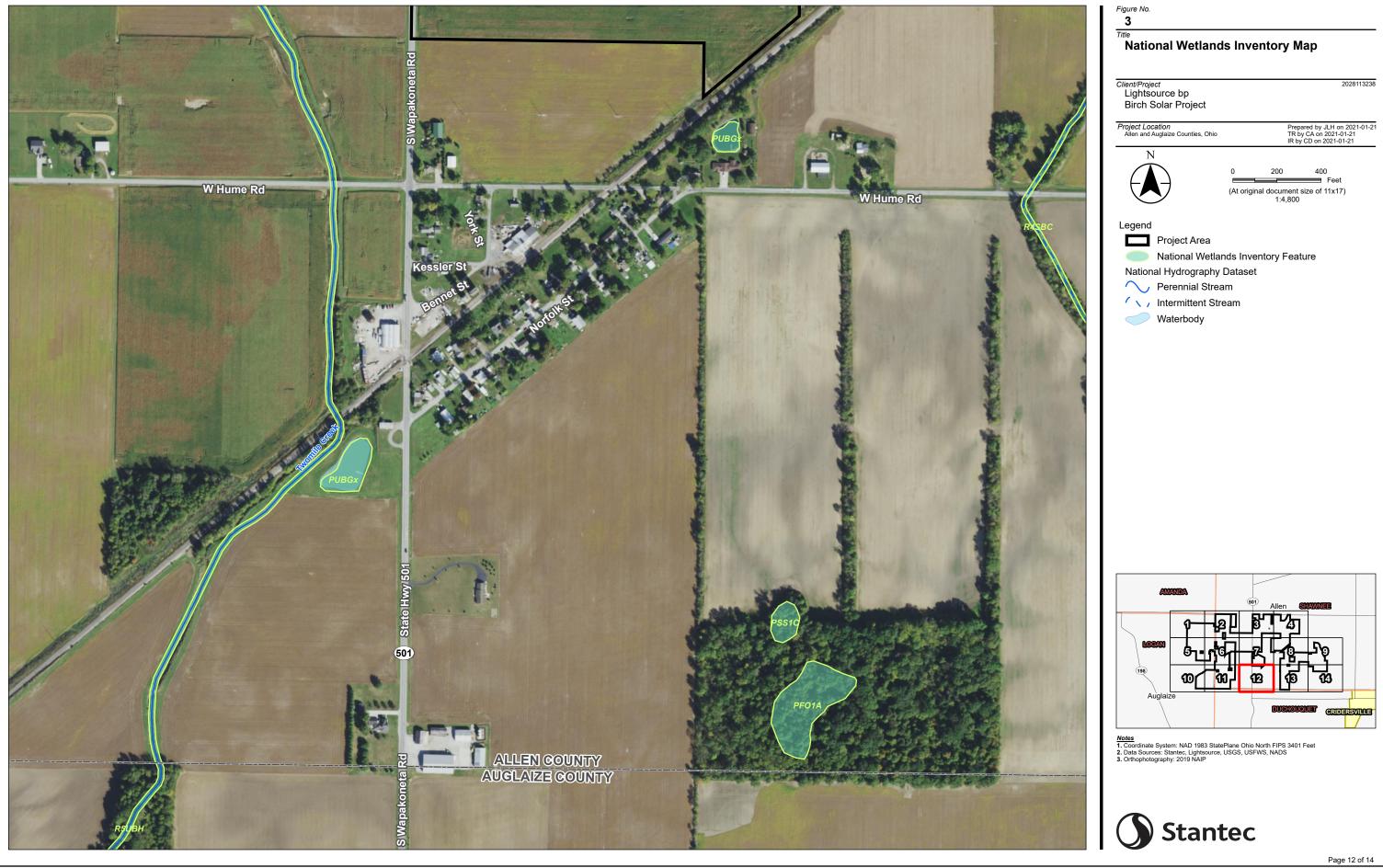




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2028113238





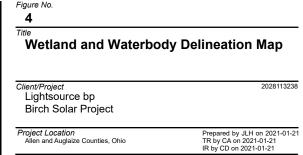




A.4 FIGURE 4 – WETLAND AND WATERBODY DELINEATION MAP









(At original document size of 11x17) 1:4.800

Project Area

Photo Location

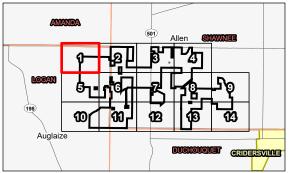
Wetland Determination Sample Point

Field Delineated Waterway

Field Delineated Open Water

Field Delineated Forested Wetland

Field Delineated Scrub Shrub Wetland



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Lightsource, USGS, NADS
3. Orthophotography: 2019 NAIP





























Appendix B DATA FORMS

B.1 WETLAND DETERMINATION FORMS





WETLAND DETERMINATION DATA FORM Midwest Region

Restrictive Layer (If Observed)	Type:												
Restrictive Laver				Depth:				Hydric Soil	Present?		Yes \square	No	
	A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu	stic en Sulfide d Layers luck ed Below Dark Surface Dark Surface		\frac{1}{2}	e not pre S4 - Sand S5 - Sand S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	y Gleyed ly Redox ped Matrix ny Muck M ny Gleyed eted Matrix x Dark Su eted Dark	Matrix k lineral Matrix x rface Surface	1 Indicators of hydrophy	A16 - Coast S7 - Dark SI F12 - Iron-N TF12 - Very Other (Expla	fanganese Mass Shallow Dark S ain in Remarks)	urface		or problematic
													
													
													
6	16	2	10YR	4/2	90	10R	4/6	10	С	M	S	ilt loar	
Depth 0	Depth 6	Horizon 1	Color 10YR	(Moist)	% 100		Color (Moist)	%	Type 	Location 	(e.g. cla	y, san Ioam	
Тор	Bottom			Matrix		. 5-concentra	Redo	x Features	ı	1	4	exture	
Map Unit Name		Westland clay loan				e: C=Concentro	tion, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Coated Sand Gro	ins: Location: PL = D	ore Lining M=Matrix)			
Remarks:													
Describe Record	led Data (stre	am gauge, monitorin	g well, ae	rial photo	s, previous	s inspecti	ons), if available:		N/A				
Field Observar Surface Water Water Table Pr Saturation Pres	Present? resent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No	Depth: Depth: Depth:		(in.) (in.) (in.)			Wetland Hy	drology Pr	resent?	Yes 🗆	No	
Wetland Hydro Remarks: HYDROLOGY Wetland Hydro Primary	ology Present Wetland 1 ology Indica A1 - Surface A2 - High Wa A3 - Saturatio B1 - Water M B2 - Sedimer B3 - Drift Dep B3 - Iron Dep B7 - Inundati	eators (Check here if Water ater Table on larks tt Deposits oosits at or Crust	agery	ors are no	B9 - Water B13 - Aqui B14 - True C1 - Hydri C3 - Oxidi C4 - Prese	er-Stained latic Fauna e Aquatic logen Sulfi ized Rhizo ence of Re ent Iron Re Muck Suri ge or Well	a Plants de Odor sspheres on Living Roots educed Iron sduction in Tilled Soils face Data		Secondary:	B6 - Surface Sc B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	oil Cracks Patterns nuterns urrows Visible on Stressed F ic Position	ıble Aerial I	■ No
Hydrophytic Ve		sent?		✓ Yes	□ No			Hydric Soils	Present?		V	Yes	□ No
	\square , Soil \square ,	or Hydrology □ na						ΝŪ		Range:	6E	Dir:	N/A
		ditions on the site ty or Hydrology \Box sign				(If no, expla	ain in remarks) Are normal circumstai	☑ Yes □ nces present?	No	Section: Township:	20 4S		
Slope (%):	0	Latitude:							NAD 83	Community ID:			
Soil Unit: Landform:	Westland cla Depression		Loc	al Relief:		NWI/WWI Classification:	PFO1C		Wetland ID: Sample Point:	Wetland SP01	1		
Investigator #1	: Aaron Kwolek Investigator #2: Westland clay loam, 0 to 1 percent slopes						DATION OF SEC. 13	State: Ohio					
Applicant:	Birch Solar	e Renewable Energ	v				Stantec Project #:	2028113328		County:	Allen		
Project/Site:	Rirch Solar	Project								Date:	08/03/20		

Sample Point: SP01



Birch Solar Project

Project/Site:

WETLAND DETERMINATION DATA FORM Midwest Region

Wetland ID: Wetland 1

VEGETATION (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status Ulmus americana 25 **FACW** 2. 50 **FACW** Acer saccharinum Number of Dominant Species that are OBL, FACW, or FAC: 4 (A) 3. Acer rubrum 15 Ν FAC 4. Total Number of Dominant Species Across All Strata: 4 (B) 5. --6. Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) 7. **Prevalence Index Worksheet** 8. --9. --__ --Total % Cover of: Multiply by: 10 OBL spp. x 1 = Total Cover = 90 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Fraxinus pennsylvanica 25 **FACW** UPL spp. x 5 = 2 0 (B) 3. Total 0 (A) --4. 5. Prevalence Index = B/A = N/A 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ✓ No Rapid Test for Hydrophytic Vegetation 10 ✓ Yes ☐ No --Dominance Test is > 50% Total Cover = ☐ Yes ☐ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * ☐ Yes Herb Stratum (Plot size: 5 ft radius) □ No Problem Hydrophytic Vegetation (Explain) * Acer saccharinum 15 **FACW** * Indicators of hydric soil and wetland hydrology must be 2. present, unless disturbed or problematic. 3. 4. **Definitions of Vegetation Strata:** --5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = 15 Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☑ Yes ☐ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



WETLAND DETERMINATION DATA FORM Midwest Region

Remarks:													
(If Observed)	Type:			Depth:				Hydric Soil	resent?		Yes ☑	INO	
	A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu	stic en Sulfide d Layers luck ed Below Dark Surface Dark Surface			re not pre S4 - Sand S5 - Sand S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	y Gleyed y Redox oed Matrix ny Muck M ny Gleyed eted Matrix ox Dark Su eted Dark	Matrix ineral Matrix r rface Surface	1 Indicators of hydrophyt	S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Prairie Redox urface langanese Mass Shallow Dark S ain in Remarks)	urface		or problematic
									<u></u>				
												-	
													
							<u></u>						
0	16	1	10YR	2/1	100							loam	,/
Top Depth	Bottom Depth	Horizon		Matrix (Moist)				x Features %	Type	Location	T (e.g. clay	exture	
Map Unit Name Profile Descrip		Westland clay loam the depth needed to document the ind				e: C=Concentral	ion, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Coated Sand Gra	ns; Location: PL=Po	ore Lining, M=Matrix)			-
SOILS		Westland slavis	0 += 4	norozat	alones								
Remarks:													_
		ram gauge, monitorinç	Depth: g well, ae	rial photo	(in.) s, previou	s inspecti	ons), if available:		N/A				
Field Observat Surface Water Water Table Pro Saturation Pres	Present? esent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No	Depth:		(in.) (in.)			Wetland Hy	drology Pr	esent?	Yes 🗵	No	
Primary:	ology Indicate A1 - Surface A2 - High Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundativ	ators (Check here if Water ater Table on larks tt Deposits oosits at or Crust	agery		Dot present B9 - Wate B13 - Aqu B14 - True C1 - Hydri C3 - Oxidi C4 - Prese	t ☑): er-Stained attic Fauna e Aquatic I ogen Sulfi ized Rhizc ence of Re ent Iron Re Muck Surf ge or Well	Leaves a Plants de Odor spheres on Living Roots sducet Iron duction in Tilled Soils ace Data	Hydric Soils Is This Samp	Secondary:	B6 - Surface Sc B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	ill Cracks Patterns n Water Tal urrows Visible on A Stressed P ic Position	Yes ble Aerial Ir	✓ No ✓ No ✓ No
SUMMARY OF		10										V	
		or Hydrology \square sig or Hydrology \square na					✓ Yes	NC		Township: Range:	4S 6E	Dir:	N/A
		ditions on the site ty				(If no, expla	ain in remarks) Are normal circumstar	✓ Yes □	No	Section:	20		
Slope (%):	0	Latitude:)51°N Lo	ongitude:	-84.192	596°W	Datum:	NAD 83	Community ID:			
Soil Unit: Landform:	Westland cla	y loam, 0 to 1 percent s	slopes	Loo	al Relief:		WI/WWI Classification:	Wetland ID: Sample Point:	Wetland	1			
Investigator #1:	Lightsource Renewable Energy : Aaron Kwolek Investigator #2:									County: State:	Allen Ohio		
Project/Site: Applicant:	Birch Solar						Stantec Project #:	2028113328		Date:	08/03/20		

Sample Point: SP02



Birch Solar Project

Project/Site:

WETLAND DETERMINATION DATA FORM Midwest Region

Wetland ID: Wetland 1

VEGETATION (Species identified in all uppercase are non-native species.) % Cover Dominant **Dominance Test Worksheet** Species Name Ind.Status Acer saccharum 70 **FACU** 2. 10 Ν FACU Quercus alba Number of Dominant Species that are OBL, FACW, or FAC: 4 (A) 3. Carya ovata 10 Ν FACU 4. Aesculus glabra 10 Ν FAC Total Number of Dominant Species Across All Strata: 5 (B) 5. --6. Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B) 7. **Prevalence Index Worksheet** 8. --9. --__ --Total % Cover of: Multiply by: 10 OBL spp. _ x 1 = --Total Cover = 100 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Aesculus glabra 5 **FAC** UPL spp. x 5 = 2. **FACW** Fraxinus pennsylvanica 5 3. Asimina triloba 5 FAC Total 0 (A) 0 (B) 4. 5. Prevalence Index = B/A = N/A 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ☑ No Rapid Test for Hydrophytic Vegetation 10 ☐ No --√ Yes Dominance Test is > 50% Total Cover = ☐ Yes ☐ No Prevalence Index is ≤ 3.0 * ☐ Yes Morphological Adaptations (Explain) * □ No ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Fraxinus pennsylvanica 15 **FACW** * Indicators of hydric soil and wetland hydrology must be 2. 2 Ν **FACW** Carex grayi present, unless disturbed or problematic. 3. 4. **Definitions of Vegetation Strata:** --5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ✓ Yes ☐ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



WETLAND DETERMINATION DATA FORM Midwest Region

	A12 - Thick D S1 - Sandy M	Dark Surface		Depth:	F8 - Redo	x Depress	sions	1 Indicators of hydrophy Hydric Soil		vetland hydrology must be	Yes 🗸 N	·
	A12 - Thick I S1 - Sandy M S3 - 5 cm Mu	Dark Surface Nuck Mineral			F8 - Redo	x Depress	sions					·
	A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified	istic en Sulfide d Layers		cators ar	re not pre S4 - Sand S5 - Sand S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	y Gleyed ly Redox ped Matrix ny Muck M ny Gleyed eted Matrix ox Dark Su eted Dark	Matrix kilineral Matrix x rface Surface		S7 - Dark Si F12 - Iron-M TF12 - Very	Prairie Redox		
												<u></u>
												
												-
10	16	2	10YR	4/4	100							
Depth 0	Depth 10	Horizon 1	Color 10YR	(Moist) 3/3	% 100		Color (Moist)	%	Type 	Location 		sand, loam) oam
Тор	Bottom			Matrix		5 Concentral	Redo	ox Features	ı	1	1	xture
Map Unit Name Profile Descrip		Pewamo silty clay I					tion, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Coated Sand Gra	ins: Location: PI =Pr	ore Lining, M=Matrix)		
SOILS												
Remarks:	ica Data (Sile	am gauge, monitolin	y well, ae	ιιαι μποιυ	o, previou	o mopecu	onoj, ii avaliable.		13/73			
Field Observat Surface Water Water Table Pr Saturation Pres	Present? resent? sent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ yes ☑ No	Depth: Depth: Depth:	riol nhat-	(in.) (in.) (in.)	o inomesti	opp) if available	Wetland Hy	drology Pr	resent?	Yes 🗵 N	No
Primary	rology Indica A1 - Surface A2 - High Water M B1 - Water M B2 - Sedimer B3 - Drift Deg B4 - Algal Ma B5 - Iron Deg B7 - Inundati	ators (Check here if Water ater Table on flarks the Deposits posits at or Crust	agery		Dot presen B9 - Wate B13 - Aqu B14 - True C1 - Hydr C3 - Oxidi C4 - Prese	t ☑): er-Stained atic Fauna e Aquatic ogen Sulfi ized Rhizc ence of Re ent Iron Re Muck Suri ge or Well	a Plants de Odor spheres on Living Roots educed Iron sduction in Tilled Soils face Data	Hydric Soils Is This Samp	Secondary:	B6 - Surface So B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	ill Cracks Patterns n Water Tabl urrows Visible on Ae Stressed Pla	erial Imagery
SUMMARY OF	FINDINGS									, iamigai		
		or Hydrology \square sigor Hydrology \square na					Are normal circumstar Ves	nces present? N□	·	Township: Range:	4S 6E D	Dir: N/A
Are climatic/hyd		ditions on the site ty	pical for	this time	of year?		ain in remarks)	☑ Yes □	No	Section:	20	
Landform: Slope (%):	Depression 1		40.6791		al Relief: ongitude:			Datum:	NAD 83	Sample Point: Community ID:		
Soil Unit:	Pewamo silty	/ clay loam, 0 to 1 perc	ent slopes	;			NWI/WWI Classification:	Wetland ID:	Non-JD			
Applicant:	Lightsource Renewable Energy : Aaron Kwolek Investigator #2:									County: State:	Allen Ohio	
	Birch Solar	Project					Stantec Project #:	2028113328		Date:	08/04/20	



Project/Site: Birch Solar Project Wetland ID: Non-JD Sample Point: SP03 **VEGETATION** (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status 2. Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) 3. 4. Total Number of Dominant Species Across All Strata: 2 (B) 5. 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B) 7. **Prevalence Index Worksheet** 8. --9. __ --Total % Cover of: Multiply by: 10. OBL spp. x 1 = --Total Cover = 0 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ UPL spp. x 5 = 2 3. Total 100 (A) 385 (B) --4. 5. Prevalence Index = B/A = 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ✓ No Rapid Test for Hydrophytic Vegetation ☑ No 10 Yes --Dominance Test is > 50% Total Cover = ☐ Yes ✓ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * FACU Bromus inermis 30 * Indicators of hydric soil and wetland hydrology must be 2. Apocynum cannabinum 15 Ν FAC present, unless disturbed or problematic. 3. 15 Ν **FACU** Asclepias syriaca 4. 30 FACU **Definitions of Vegetation Strata:** Solidago canadensis 5. Cirsium arvense 10 Ν **FACU** 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. __ 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = 100 Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☐ Yes ☑ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



	A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydroge A5 - Stratifie A10 - 2 cm M A11 - Deplet A12 - Thick I S1 - Sandy M	istic en Sulfide d Layers Muck ed Below Dark Surface Dark Surface		cators ar		y Gleyed I y Redox oed Matrix ny Muck M ny Gleyed eted Matrix ox Dark Su eted Dark	Matrix ineral Matrix C rface Surface		S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Prairie Redox urface langanese Mass Shallow Dark Si ain in Remarks)	es urface	ed or problematic
NRCS Hydric	A1- Histosol A2 - Histic El A3 - Black Hi A4 - Hydroge A5 - Stratifie A10 - 2 cm M A11 - Deplet A12 - Thick E S1 - Sandy M S3 - 5 cm Mu	ndicators (check he pipedon istic en Sulfide d Layers Muck ed Below Dark Surface Jurk Curface Jurk Curface Jurk Curface Jurk Curface Muck Mineral	 ere if indi	cators ar	re not pre S4 - Sand S5 - Sand S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	sent y Gleyed y Redox oed Matrix ny Muck M ny Gleyed eted Matrix x Dark Su eted Dark): Matrix ineral Matrix c rface Surface	Indicators Indicators	for Problem A16 - Coast S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	natic Soils 1 Prairie Redox urface langanese Mass Shallow Dark Si ain in Remarks)	es urface	ed or problematic.
			l .									
												
		<u></u>										
2	16	2	10YR	5/1	90	10R	4/6	10	С	M	clay lo	oam
Depth 0	Depth 2	Horizon 1	Color 10YR	(Moist) 2/1	% 100		Color (Moist)	% 	Type 	Location 	(e.g. clay, sa mucky	
Тор	Bottom			Matrix		e. U=Uoncentrat	Redo	x Features		T	Textu	
Map Unit Name		Pewamo silty clay					ion, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Control Cond	no: Location DL D	oro Lining Maddatais		
Remarks:												
Describe Record	led Data (stre	am gauge, monitorin	g well, ae	rial photo	s, previous	s inspecti	ons), if available:		N/A			
Field Observat Surface Water Water Table Pr Saturation Pres	Present? resent?	☐ Yes ☑ No ☐ Yes ☑ No ☑ Yes ☐ No	Depth: Depth: Depth:	0	(in.) (in.) (in.)			Wetland Hyd	drology Pr	esent? 🗵	Yes □ No	
Wetland Hydrol Remarks: HYDROLOGY Wetland Hydrol Primary	A1 - Surface A2 - High Wa A3 - Saturatio B1 - Water M B2 - Sedimer B3 - Drift Der B4 - Algal M B5 - Iron Der B7 - Inundati	ators (Check here i Water ater Table on Marks nt Deposits posits at or Crust	agery	ors are no	B9 - Water B13 - Aqui B14 - True C1 - Hydri C3 - Oxidi C4 - Prese	er-Stained latic Fauna e Aquatic I ogen Sulfi ized Rhizo ence of Re ent Iron Re Muck Surf ge or Well	Plants de Odor spheres on Living Roots educed Iron duction in Tilled Soils ace Data		Secondary:	B6 - Surface So B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	and? Yes	s No
SUMMARY OF Hydrophytic Ve		sent?		✓ Yes	□ No			Hydric Soils	Present?		✓ Ye:	s 🗆 No
Are Vegetation	☐ , Soil ☐ ,	or Hydrology □ na					✓ Yes	NC		Range:	6E Dir:	N/A
		ditions on the site ty or Hydrology □ sig				(If no, expla	ain in remarks) Are normal circumstai	✓ Yes □	No	Section: Township:	20 4S	
	2	Latitude:		616°N L	ongitude:	-84.195	082°W	Datum:	NAD 83	Community ID:		
Slope (%):	Pewamo silty Depression	clay loam, 0 to 1 perc	ent slopes		al Relief:		NWI/WWI Classification:	N/A		Wetland ID: Sample Point:	Wetland 2	
Landform: Slope (%):	Lightsource Renewable Energy or #1: Aaron Kwolek Investigator #2:									County: State:	Allen Ohio	
Soil Unit: Landform: Slope (%):							Stantec Project #:	2028113328		Date:	08/04/20	



Project/Site: Birch Solar Project Wetland ID: Wetland 2 Sample Point: SP04 **VEGETATION** (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status 2. Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) 3. 4. Total Number of Dominant Species Across All Strata: 2 (B) 5. 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) 7. **Prevalence Index Worksheet** 8. --9. __ --Total % Cover of: Multiply by: 10. OBL spp. _ x 1 = Total Cover = 0 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Salix nigra 75 OBL UPL spp. x 5 = 2. Fraxinus pennsylvanica **FACW** 5 Ν 3. Total 0 (A) 0 (B) 4. 5. Prevalence Index = B/A = N/A 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ☑ No Rapid Test for Hydrophytic Vegetation ☐ No 10 Yes --Dominance Test is > 50% Total Cover = ☐ Yes □ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * \square Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Phalaris arundinacea 30 **FACW** * Indicators of hydric soil and wetland hydrology must be 2. present, unless disturbed or problematic. 3. 4. **Definitions of Vegetation Strata:** --5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. --Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15. Total Cover = Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☑ Yes ☐ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



Restrictive Layer (If Observed) Remarks:	Fill materia	l										
	1,700.											
	Type:			Depth:				Hydric Soil	Present?		Yes ☑ No	<u> </u>
	A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydroge A5 - Stratifie A10 - 2 cm M A11 - Deplet A12 - Thick I S1 - Sandy M	stic en Sulfide d Layers luck ed Below Dark Surface Dark Surface		cators ar	re not pre S4 - Sand S5 - Sand S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	y Gleyed ly Redox ped Matrix ny Muck M ny Gleyed eted Matrix ox Dark Su eted Dark	Matrix ineral Matrix x rface Surface		A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	natic Soils 1 Prairie Redox urface langanese Mass Shallow Dark S ain in Remarks)	urface	rbed or problematic
											-	-
												<u>-</u> -
												<u>-</u>
0	16	1	10YR	2/1	10						clay	
0	16	1	10YR	6/8	45							loam
Depth 0	Depth 16	Horizon 1	Color 10YR	(Moist) 5/4	% 45		Color (Moist)	% 	Type 	Location 	(e.g. clay, s	
Тор	Bottom			Matrix		. J-Goricential	Redo	x Features		1	Tex	
Map Unit Name		Pewamo silty clay I		_			tion, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Coated Sand Gra	ins: Location: PI = D	ore Lining M=Matrix)		
SOILS												
Remarks:	ieu Data (SIFE	am gauge, monitoring	y well, ae	nai photo	s, previou	ь шъресц	unaj, ii avaliable.		N/A			
Surface Water Water Table Pr Saturation Pres	Present? resent? sent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No	Depth: Depth: Depth:		(in.) (in.) (in.)			Wetland Hy		resent?	Yes ☑ No	0
Are Vegetation SUMMARY OF Hydrophytic Ve Wetland Hydro Remarks: HYDROLOGY Wetland Hydr Primary	ology Indicate A1 - Surface A2 - High Wa B2 - Sedimer B3 - Drift Dep B5 - Iron Dep B7 - Inundati	or Hydrology na sent? ? ators (Check here if Water ater Table on larks tt Deposits oosits at or Crust	turally pr	yes yes	ot presen B9 - Wate B13 - Aqu B14 - Truc C1 - Hydr C3 - Oxidi C4 - Press	t ☑): er-Stained attic Fauna e Aquatic I ogen Sulfi ized Rhizc ence of Re ent Iron Re Muck Surl ge or Well	Leaves a Plants de Odor spheres on Living Roots eduction in Tilled Soils face Data	NU Hydric Soils	Present? bling Point Secondary:	Range: Within A Wetla B6 - Surface Sc B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	oil Cracks Patterns n Water Table urrows Visible on Aer Stressed Plan ic Position	es V No
		ditions on the site ty or Hydrology \square sig				(If no, expla	ain in remarks) Are normal circumstar	☑ Yes □ nces present?	No	Section: Township:	20 4S	
Slope (%):	2	Latitude:		599°N L	ongitude:	-84.195			NAD 83	Community ID:	UPL	
Soil Unit: Landform:		clay loam, 0 to 1 perc	ent slopes	;	al Relief:		NWI/WWI Classification:	N/A		Wetland ID: Sample Point:	Wetland 2	
Applicant:	Lightsource Renewable Energy #1: Aaron Kwolek Investigator #2:									County: State:	Allen Ohio	
Project/Site:	Birch Solar	Project					Stantec Project #:	2028113328		Date:	08/04/20	

Sample Point: SP05



Birch Solar Project

Project/Site:

WETLAND DETERMINATION DATA FORM Midwest Region

Wetland ID: Wetland 2

VEGETATION (Species identified in all uppercase are non-native species.) % Cover Dominant **Dominance Test Worksheet** Species Name Ind.Status Ulmus rubra 10 FAC 2. Juglans nigra 10 **FACU** Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) 3. Morus rubra 10 Υ FACU 4. Total Number of Dominant Species Across All Strata: 7 (B) 5. __ 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 29% (A/B) 7. 8. --**Prevalence Index Worksheet** 9. --__ --Total % Cover of: Multiply by: 10 OBL spp. x 1 = Total Cover = 30 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ 114 Fraxinus pennsylvanica 2 Ν **FACW** UPL spp. x 5 = 2 3. Total 147 (A) 531 (B) 4. 5. Prevalence Index = B/A = 3.612 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ☑ No Rapid Test for Hydrophytic Vegetation 10 Yes ✓ No --Dominance Test is > 50% Total Cover = ☐ Yes ✓ No Prevalence Index is ≤ 3.0 * ☐ Yes Morphological Adaptations (Explain) * □ No ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Solidago canadensis **FACU** * Indicators of hydric soil and wetland hydrology must be 2. 10 Ν **FACU** Cirsium arvense present, unless disturbed or problematic. 3. Phalaris arundinacea 20 Υ FACW 4. Ν OBL **Definitions of Vegetation Strata:** Lythrum salicaria 1 5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = 100 Woody Vine Stratum (Plot size: 30 ft radius) Rubus allegheniensis 15 **FACU** 2. Hydrophytic Vegetation Present ☐ Yes ☑ No 3. 4. 5. Total Cover = 15 Remarks: Additional Remarks:



D!	Disale Calas	Desir et					Ot t D ! t #-	0000440000		D-4	00/04/00	
Project/Site:	Birch Solar						Stantec Project #:	2028113328		Date:	08/04/20	
Applicant:		e Renewable Energy	У							County:	Allen	
Investigator #1:	Aaron Kwo	lek		Investi	gator #2:					State:	Ohio	
Soil Unit:	Westland cla	y loam, 0 to 1 percent	slopes			1	IWI/WWI Classification:	PFO1A		Wetland ID:	Non-JD	
Landform:	Depression			Loc	al Relief:					Sample Point:		
			40.070					D-4	NIAD OO			
Slope (%):	2	Latitude:							NAD 83	Community ID:		
Are climatic/hyd	drologic cond	ditions on the site ty	pical for	this time	of year?	(If no, expla	in in remarks)	☑ Yes □	No	Section:	20	
Are Vegetation	□ . Soil □ .	or Hydrology □ sig	nificantl	v disturb	ed?		Are normal circumstar	nces present?	?	Township:	4S	
		or Hydrology 🗆 na					✓ Yes	NU		Range:	6E	Dir: N/A
SUMMARY OF	EINDINGS	or riyarology = na	tarany pi	орюнис						rungo.	OL.	DII. 14// C
Hydrophytic Ve				☐ Yes				Hydric Soils				Yes <u></u> No
Wetland Hydrol	ogy Present	?		Yes	☐ No			Is This Sam	pling Point '	Within A Wetla	and?	Yes 🛂 No
Remarks:												
HYDROLOGY												
HYDROLOGY												
Wetland Hydro	ology Indica	ators (Check here it	indicate	ors are no	ot presen	t □):						
Primary:					•	,			Secondary:			
	A1 - Surface	Water			B9 - Wate	r-Stained	Leaves			B6 - Surface Sc	il Cracks	
	A2 - High Wa				B13 - Aqu					B10 - Drainage		
	A3 - Saturation				B14 - True					C2 - Dry-Seaso		ole
	B1 - Water M				C1 - Hydr					C8 - Crayfish B		
	B2 - Sedimer						spheres on Living Roots			C9 - Saturation		erial Imagery
	B3 - Drift Der						duced Iron			D1 - Stunted or		
	B4 - Algal Ma						duction in Tilled Soils			D2 - Geomorph		anto
	B5 - Iron Dep				C7 - Thin					D5 - FAC-Neutr		
		on Visible on Aerial Ima	anerv		D9 - Gaug					20 1710 11041	u	
		Vegetated Concave S			Other (Ex							
	20 opa.00.,	, regulated contains a	· ai i a o o	_	O 11.10. (EX							
Field Observat	ions:											
Surface Water	Present?	☐ Yes ☑ No	Depth:		(in.)			Wetland Hy	drology Dr	ocont?	Yes □	No
Water Table Pr	esent?	Yes No	Depth:		(in.)			welland ny	urology Fi	esent: M	165	NO
Saturation Pres	ent?	☐ Yes ☑ No	Depth:		(in.)							
Gaturation 1 103	CIII:	☐ Tes ☑ NO	Бериі.		(111.)							
Describe Becord	ed Data (stre	am gauge, monitoring	a well, ae	rial photo	s, previou	s inspecti	ons), if available:		N/A			
Describe Record	ca Data (Sile											
	ca Data (Stre	3 3 7	,			· ·	,,					
Remarks:	ca Data (Sire	3 3 7	<i>,</i>	<u> </u>	7.		,					
Remarks:	ed Data (Sire	3 3 /	<i>,</i>			·	,					
Remarks:	·			·		·	,					
Remarks:	·	Westland clay loan		·			,					
Remarks: SOILS Map Unit Name):	Westland clay loan	n, 0 to 1	percent :	slopes	· e: C=Concentral	,	Covered/Coated Sand Gra	nins: Location: PL=P	ore Lining. M=Matrix)		
Remarks: SOILS Map Unit Name Profile Descrip	etion (Describe to	Westland clay loan	n, 0 to 1	percent s	slopes	e: C=Concentral	on, D=Depletion, RM=Reduced Matrix, CS=C		nins; Location: PL=P	ore Lining, M=Matrix)	l Te	eyture
Remarks: SOILS Map Unit Name Profile Descrip Top	e: tion (Describe to Bottom	Westland clay loan the depth needed to document the inc	1, 0 to 1	percent so on the absence of Matrix	Slopes indicators.) (Typ	e: C=Concentral	on, D=Depletion, RM=Reduced Matrix, CS=C RedC	x Features	1	1	4	exture
Remarks: SOILS Map Unit Name Profile Descrip Top Depth	etion (Describe to Bottom Depth	Westland clay loan	n, 0 to 1	percent some some some some some some some some	slopes indicators.) (Typ	e: C=Concentrat	on, D=Depletion, RM=Reduced Matrix, CS=C		ins; Location: PL=Po	ore Lining, M=Matrix)	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top	e: tion (Describe to Bottom	Westland clay loan the depth needed to document the inc	1, 0 to 1	percent so on the absence of Matrix	Slopes indicators.) (Typ	e: C=Concentral	on, D=Depletion, RM=Reduced Matrix, CS=C RedC	x Features	1	1	(e.g. clay	
Remarks: SOILS Map Unit Name Profile Descrip Top Depth	etion (Describe to Bottom Depth	Westland clay loan the depth needed to document the inc	n, 0 to 1	percent some some some some some some some some	slopes indicators.) (Typ		on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features %	Туре	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	btion (Describe to Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	n, 0 to 1 licator or confirm Color 10YR	percent some the absence of Matrix (Moist)	slopes indicators.) (Typ % 100		on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist) 	% Features	Type	Location 	(e.g. clay	, sand, loam) ky loam
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent sometime absence of Matrix (Moist) 2/2	slopes indicators.) (Typ % 100		on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist) 	% Features %	Type	Location 	(e.g. clay	, sand, loam) ky loam
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	btion (Describe to Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	n, 0 to 1 licator or confirm Color 10YR	percent some the absence of Matrix (Moist)	slopes indicators.) (Typ % 100		on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist) 	% Features	Type	Location 	(e.g. clay	, sand, loam) ky loam
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent sometime absence of Matrix (Moist) 2/2	slopes indicators.) (Typ % 100		on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist) 	% Features %	Type	Location 	(e.g. clay	, sand, loam) cky loam
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	n, 0 to 1 licator or confirm Color 10YR	percent s In the absence of Matrix (Moist) 2/2	slopes indicators.) (Typ % 100	 	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	% Features	Type	Location 	(e.g. clay	, sand, loam) cky loam
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent some the absence of Matrix (Moist) 2/2	slopes indicators.) (Typ % 100	 	on, D=Depletion, RM=Reduced Matrix, CS=C Redoc Color (Moist)	x Features	Type	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent : In the absence of Matrix (Moist) 2/2	slopes indicators.) (Typ % 100	 	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features	Type	Location	(e.g. clay	, sand, loam) cky loam
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	bition (Describe to Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (the absence of Matrix (Moist) 2/2	% 100	 	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features %	Type	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0	bition (Describe to Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (the absence of Matrix (Moist) 2/2	% 100	 	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features %	Type	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	bition (Describe to Bottom Depth 16	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (the absence of Matrix (Moist) 2/2	% 100	 sent 🗹	on, D=Depletion, RM=Reduced Matrix, CS=CRedor (Moist)	x Features %	Type s for Problem	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric:	Bottom Depth 16 Soil Field In	Westland clay loan the depth needed to document the inc Horizon 1 adicators (check he	Color 10YR	percent : the absence of Matrix (Moist) 2/2 cators ar	slopes indicators.) (Typ % 100 e not pre S4 - Sand		on, D=Depletion, RM=Reduced Matrix, CS=CRedor (Moist)	x Features %	Type s for Problem	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric:	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E	Westland clay loan the depth needed to document the inc Horizon 1 ndicators (check he	Color 10YR	percent s not be absence of Matrix (Moist) 2/2 cators an	slopes indicators) (Typ % 100		on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features %	Type 5 for Problem A16 - Coast S7 - Dark S	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E	Westland clay loan the depth needed to document the inc Horizon 1 adicators (check he	Color 10YR	percent s n the absence of Matrix (Moist) 2/2 cators ar	slopes indicators.) (Typ % 100 e not pre S4 - Sand		on, D=Depletion, RM=Reduced Matrix, CS=C Redoc Color (Moist)	x Features % Indicators	Type 5 for Problen A16 - Coast S7 - Dark S F12 - Iron-N	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E A4 - Hydroge	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent sente absence of Matrix (Moist) 2/2 cators ar	% 100 e not pre S4 - Sand S5 - Sand S6 - Strip F1 - Loan	sent ✓ y Gleyed y Redox y Redox y Ruck Muck Muck Muck Muck Muck Muck Muck M	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features % Indicators	Type 5 for Problem A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydroge A5 - Stratifier	Westland clay loan the depth needed to document the inc Horizon 1 ndicators (check he pipedon istic en Sulfide d Layers	Color 10YR	percent (method absence of Matrix (Moist) 2/2 cators an	% 100 e not pre s4 - Sand s5 - Sand s5 - Sartipp F1 - Loam F2 - Loam	y Gleyed y Redox y Redox y Muck Matrix y Muck Muy Gleyed	on, D=Depletion, RM=Reduced Matrix, CS=CRedor (Moist)	x Features % Indicators	Type 5 for Problem A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratifiec A10 - 2 cm M	Westland clay loan the depth needed to document the inc Horizon 1 ndicators (check he pipedon stic en Sulfide d Layers fluck	Color 10YR	percent (method absence of Matrix (Moist) 2/2 cators an	slopes indicators.) (Typ % 100 e not pre S4 - Sand S5 - Sand S6 - Strip F1 - Loarn F3 - Deple	sent y Gleyed y Redox yed Matrix y Muck M yly Muck M atrix Gleyed	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features % Indicators	Type 5 for Problem A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifiee A10 - 2 cm M A11 - Deplete	Westland clay loan the depth needed to document the inc Horizon 1 ndicators (check he oppedon istic en Sulfide dd Layers fluck ed Below Dark Surface	Color 10YR	percent sentence of Matrix (Moist) 2/2 cators ar	% 100	sent	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features % Indicators	Type 5 for Problem A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histo E A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplet A12 - Thick L	Westland clay loan the depth needed to document the inc Horizon 1 adicators (check he pipedon istic en Sulfide d Layers fluck ed Below Dark Surface Dark Surface	Color 10YR	percent (method absence of Matrix (Moist) 2/2 cators an	% 100	sent y Gleyed y Redox y Redox y Muck M y Gleyed Matrix y Muck M to Matrix x Dark Su eted Dark	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	x Features % Indicators	Type 5 for Problem A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location	(e.g. clay	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric:	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplet A12 - Thick E S1 - Sandy M	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (nthe absence of Matrix (Moist) 2/2 cators ar	% 100	sent y Gleyed y Redox y Redox y Muck M y Gleyed Matrix y Muck M to Matrix x Dark Su eted Dark	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	ox Features % Indicators	Type s for Problem A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very Other (Explain	Location	es es urface	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric:	Bottom Depth 16 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick E S1 - Sandy M S3 - 5 cm Mt	Westland clay loan the depth needed to document the inc Horizon 1 adicators (check he pipedon istic en Sulfide d Layers fluck ed Below Dark Surface Dark Surface	Color 10YR	percent (nthe absence of Matrix (Moist) 2/2 cators ar	% 100	sent y Gleyed y Redox y Redox y Muck M y Gleyed Matrix y Muck M to Matrix x Dark Su eted Dark	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	ox Features %	Type s for Problen A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very Other (Expla	Location	es urface	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplet A12 - Thick E S1 - Sandy M	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (nthe absence of Matrix (Moist) 2/2 cators ar	% 100	sent y Gleyed y Redox y Redox y Muck M y Gleyed Matrix y Muck M to Matrix x Dark Su eted Dark	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	ox Features % Indicators	Type s for Problen A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very Other (Expla	Location	es es urface	, sand, loam)
Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric :	Bottom Depth 16 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick E S1 - Sandy M S3 - 5 cm Mt	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (nthe absence of Matrix (Moist) 2/2 cators ar	% 100	sent y Gleyed y Redox y Redox y Muck M y Gleyed Matrix y Muck M to Matrix x Dark Su eted Dark	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	ox Features %	Type s for Problen A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very Other (Expla	Location	es urface	, sand, loam)
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Remarks: SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric :	Bottom Depth 16 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick E S1 - Sandy M S3 - 5 cm Mt	Westland clay loan the depth needed to document the inc Horizon 1	Color 10YR	percent (nthe absence of Matrix (Moist) 2/2 cators ar	% 100	sent y Gleyed y Redox y Redox y Muck M y Gleyed Matrix y Muck M to Matrix x Dark Su eted Dark	on, D=Depletion, RM=Reduced Matrix, CS=C Redo Color (Moist)	ox Features %	Type s for Problen A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very Other (Expla	Location	es urface	s, sand, loam) ky loam

Sample Point: SP06



Birch Solar Project

Project/Site:

WETLAND DETERMINATION DATA FORM Midwest Region

Wetland ID: Non-JD

VEGETATION (Species identified in all uppercase are non-native species.) % Cover Dominant **Dominance Test Worksheet** Species Name Ind.Status Acer saccharum 85 **FACU** 2. 10 Ν FAC Aesculus glabra Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) 3. 4. Total Number of Dominant Species Across All Strata: 2 (B) 5. __ 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B) 7. **Prevalence Index Worksheet** 8. --9. --__ --Total % Cover of: Multiply by: 10. OBL spp. x 1 = Total Cover = 95 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Asimina triloba Ν **FAC** UPL spp. x 5 = 2. Ν **FACW** Lindera benzoin 3. Total 104 (A) 390 (B) 4. 5. Prevalence Index = B/A = 3.750 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ☑ No Rapid Test for Hydrophytic Vegetation 10 ✓ No --☐ Yes Dominance Test is > 50% Total Cover = ☐ Yes ✓ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * ☐ Yes ☐ No Herb Stratum (Plot size: 5 ft radius) Problem Hydrophytic Vegetation (Explain) * Laportea canadensis 5 **FACW** * Indicators of hydric soil and wetland hydrology must be 2. present, unless disturbed or problematic. 3. 4. **Definitions of Vegetation Strata:** --5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☐ Yes ☑ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



	Dirob Color	Drojoot					Stantec Project #:	0000440000		Date:	08/04/20
Project/Site:	Birch Solar	e Renewable Energ					Starilet Frojett #.	2028113328			
Applicant:	0	0.	У							County:	Allen
Investigator #1:				investi	gator #2:			55011		State:	Ohio
Soil Unit:		y loam, 0 to 1 percent	slopes				IWI/WWI Classification:	PFO1A		Wetland ID:	Non-JD
Landform:	Terrace				al Relief:					Sample Point:	
Slope (%):	2	Latitude:							NAD 83	Community ID:	UPL
Are climatic/hyd	drologic cond	ditions on the site ty	pical for	this time	of year?	(If no, expla	in in remarks)	☑ Yes □	No	Section:	20
Are Vegetation	\square , Soil \square ,	or Hydrology sig	nificantl	y disturb	ed?		Are normal circumstar	nces present?	?	Township:	4S
Are Vegetation	\square , Soil \square ,	or Hydrology na	turally pi	oblemat	ic?		Yes	NC		Range:	6E Dir: N/A
SUMMARY OF	FINDINGS										
Hydrophytic Ve		sent?		✓ Yes	□ No			Hydric Soils	Present?		☐ Yes ☑ No
Wetland Hydrol	~			□ Yes						Within A Wetla	
Remarks:	- 3)								g		
HYDROLOGY											
Wetland Hydro	ology Indica	ators (Check here if	indicato	rs are no	ot present	∵):					
Primary:		`			•	,			Secondary:		
	A1 - Surface				B9 - Wate					B6 - Surface So	
	A2 - High Wa				B13 - Aqu					B10 - Drainage	
	A3 - Saturation				B14 - True					C2 - Dry-Seaso	
	B1 - Water M B2 - Sedimer				C1 - Hydr		spheres on Living Roots			C8 - Crayfish B	Visible on Aerial Imagery
	B3 - Drift De						duced Iron				Stressed Plants
	B4 - Algal Ma						duction in Tilled Soils			D2 - Geomorph	
	B5 - Iron Dep				C7 - Thin					D5 - FAC-Neutr	
	B7 - Inundati	on Visible on Aerial Ima	agery		D9 - Gaug	ge or Well	Data				
	B8 - Sparsely	Vegetated Concave S	Surface		Other (Ex	olain in Re	marks)				
Field Observat	ions:										
Surface Water	Present?	☐ Yes ☑ No	Depth:		(in.)			Wetland Hy	drology Pr	ocont?	Yes ☑ No
Water Table Pr	esent?	Yes No No	Depth:		(in.)			welland ny	urology Fi	esent:	i ies 🖾 No
Saturation Pres	ent?	☐ Yes ☑ No	Depth:		(in.)						
Dagariba Dagard	ad Data Jatra	ana marina manitaria			. ,	. in an a ati	ana) if available.		N/A		
Describe Record	ed Data (Stre	am gauge, monitoring	g well, ae	пагрпото	s, previou	s inspecii	oris), ii avaliable:		IN/A		
Remarks:											
SOILS											
SOILS Map Unit Name		Westland clay loan									
SOILS Map Unit Name						e: C=Concentral	on, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Coated Sand Gra	ins; Location: PL=Pe	ore Lining, M=Matrix)	
SOILS Map Unit Name						e; C=Concentral		Covered/Coated Sand Gra	ins; Location: PL=Po	ore Lining, M=Matrix)	Texture
SOILS Map Unit Name Profile Descrip	otion (Describe to		licator or confirm	n the absence of		e: C=Concentral			ins; Location: PL=Po	ore Lining, M=Matrix) Location	Texture (e.g. clay, sand, loam)
SOILS Map Unit Name Profile Descrip	Bottom	the depth needed to document the inc	licator or confirm	n the absence of Matrix	indicators.) (Typ	a: C=Concentral	Redo	x Features	ı	1	(e.g. clay, sand, loam)
SOILS Map Unit Name Profile Descrip Top Depth	Bottom Depth	the depth needed to document the inc	Color	Matrix (Moist)	indicators.) (Typ		Color (Moist)	x Features %	Туре	Location	
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom (Describe to Depth 16	the depth needed to document the inc Horizon 1	Color 10YR	Matrix (Moist) 2/1	% 100		Redo Color (Moist)	%	Type	Location 	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	the depth needed to document the inc Horizon 1	Color 10YR	Matrix (Moist) 2/1	% 100	 	Redo	% Features	Type	Location 	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	the depth needed to document the inc Horizon 1	Color 10YR 	Matrix (Moist) 2/1	% 100	 	Redo	x Features %	Type		(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	the depth needed to document the inc Horizon 1	Color 10YR	Matrix (Moist) 2/1	% 100	 	Redo	x Features % 	Type	Location	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0	btion (Describe to Bottom Depth 16	the depth needed to document the inc Horizon 1	Color 10YR	Matrix (Moist) 2/1	9/6 100 	 	Redo Color (Moist)		Type		(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 16	the depth needed to document the inc Horizon 1	Color 10YR	Matrix (Moist) 2/1	% 100	 	Redo	x Features % 	Type	Location	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0	btion (Describe to Bottom Depth 16	the depth needed to document the inc Horizon 1	Color 10YR	Matrix (Moist) 2/1	9/6 100 	 	Redo Color (Moist)		Type		(e.g. clay, sand, loam) silty clay loam
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SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydrogee	Horizon 1	Color 10YR	matrix (Moist) 2/1 cators an	%	sent 🗹 y Gleyed y Redox y Redox y Redox Matrix	Redo Color (Moist)	x Features % Indicators	Type	Location	(e.g. clay, sand, loam) silty clay loam
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SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	btion (Describe to Describe to Depth 16	Horizon 1	Color Color 10YR re if indi	matrix (Moist) 2/1 cators an	% 100	sent 🖳 y Gleyed y Redox oed Matrix y Muck M y Gleyed deted Matrix x Dark Su	Redo Color (Moist)	x Features % Indicators	Type	Location	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	btion (Describe to Describe to Depth 16	Horizon 1	Color Color 10YR re if indi	mthe absence of Matrix (Moist) 2/1 cators ar	% 100 e not pre S4 - Sand S5 - Sand S6 - Stripi F1 - Loarn F3 - Deple		Redo Color (Moist)	x Features % Indicators	Type	Location	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric:	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplet A12 - Thick E S1 - Sandy M	Horizon 1	Color Color 10YR re if indi	matrix (Moist) 2/1 cators ar	"Mindicators.) (Type indicators.) (Type indicators.		Redo Color (Moist)	x Features % Indicators	Type sfor Problen A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location	(e.g. clay, sand, loam) silty clay loam
SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	btion (Describe to Describe to Depth 16	Horizon 1	Color Color 10YR re if indi	matrix (Moist) 2/1 cators ar	"Mindicators.) (Type indicators.) (Type indicators.		Redo Color (Moist)	y Features % Indicators Indicators of hydrophy	Type for Problen A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location	(e.g. clay, sand, loam) silty clay loam es
SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field In A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplet A12 - Thick E S1 - Sandy M	Horizon 1	Color Color 10YR re if indi	matrix (Moist) 2/1 cators ar	"Mindicators.) (Type indicators.) (Type indicators.		Redo Color (Moist)	x Features % Indicators	Type for Problen A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location	(e.g. clay, sand, loam) silty clay loam
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SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	btion (Describe to Describe to Depth 16	Horizon 1	Color Color 10YR re if indi	matrix (Moist) 2/1 cators ar	"Mindicators.) (Type indicators.) (Type indicators.		Redo Color (Moist)	y Features % Indicators Indicators of hydrophy	Type for Problen A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location	(e.g. clay, sand, loam) silty clay loam es
SOILS Map Unit Name Profile Descrip Top Depth 0 NRCS Hydric	btion (Describe to Describe to Depth 16	Horizon 1	Color Color 10YR re if indi	matrix (Moist) 2/1 cators ar	"Mindicators.) (Type indicators.) (Type indicators.		Redo Color (Moist)	y Features % Indicators Indicators of hydrophy	Type for Problen A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location	(e.g. clay, sand, loam) silty clay loam es

Sample Point: SP07



Birch Solar Project

Project/Site:

WETLAND DETERMINATION DATA FORM Midwest Region

Wetland ID: Non-JD

VEGETATION (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status Celtis occidentalis 45 FAC 2. 25 **FACU** Tilia americana Number of Dominant Species that are OBL, FACW, or FAC: 4 (A) 3. Juglans nigra 10 Ν FACU 4. Aesculus glabra 10 Ν FAC Total Number of Dominant Species Across All Strata: 5 (B) **FACU** 5. 10 Fraxinus americana Ν 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B) 7. **Prevalence Index Worksheet** 8. --9. --__ --Total % Cover of: Multiply by: 10 OBL spp. x 1 = --Total Cover = 100 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Asimina triloba 5 **FAC** UPL spp. x 5 = 15 2. **FACW** Lindera benzoin 3. Carpinus caroliniana 2 Ν FAC Total 0 (A) 0 (B) 4. 5. Prevalence Index = B/A = N/A 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ☑ No Rapid Test for Hydrophytic Vegetation 10 ✓ Yes ☐ No --Dominance Test is > 50% Total Cover = ☐ Yes ☐ No Prevalence Index is ≤ 3.0 * ☐ Yes Morphological Adaptations (Explain) * □ No ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Laportea canadensis 30 **FACW** * Indicators of hydric soil and wetland hydrology must be 2. 5 Ν **FACW** Carex grayi present, unless disturbed or problematic. 3. Ν OBL Boehmeria cylindrica 5 4. 5 Ν FACU **Definitions of Vegetation Strata:** Elymus canadensis 5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☑ Yes ☐ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



i tomants.												
(If Observed) Remarks:	Туре:			Depth:				Hydric Soil	Present?		Yes 🗆 N	0
	A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifier A10 - 2 cm M A11 - Deplet A12 - Thick E S1 - Sandy M S3 - 5 cm M	stic en Sulfide d Layers luck ed Below Dark Surface Dark Surface	re if indi		Fe not pre S4 - Sand S5 - Sand S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	y Gleyed y Redox ped Matrix y Muck M ny Gleyed eted Matrix x Dark Su eted Dark	Matrix ineral Matrix x rface Surface	1 Indicators of hydrophy	A16 - Coast S7 - Dark SI F12 - Iron-N TF12 - Very Other (Expla	fanganese Mass Shallow Dark Si ain in Remarks)	urface	
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												- <u> </u>
												-
8	16	2	10YR	4/1	92	10YR	4/6	8	C	M		clay
Depth 0	Depth 8	Horizon 1	Color 10YR	(Moist) 4/1	% 100		Color (Moist)	%	Type	Location	` -	sand, loam) clay
Top	Bottom	the depth needed to document the ind	icator or confirm	the absence of Matrix		e: C=Concentra	ion, D=Depletion, RM=Reduced Matrix, CS=0	Covered/Coated Sand Gra	ins; Location: PL=P	ore Lining, M=Matrix)	Tex	ture
Map Unit Name		Pewamo silty clay l										
Remarks:	2. (2.00	3 3 7	,,	,	,,	F-34	,,					
Saturation Pres		☐ Yes ☑ No	Depth:	rial photo	(in.)	s inspecti	ons), if available:		N/A			
Field Observat Surface Water Water Table Pr	Present?	☐ Yes ☑ No ☐ Yes ☑ No	Depth:		(in.) (in.)			Wetland Hy	drology Pr	esent?	Yes □ N	0
Are Vegetation SUMMARY OF Hydrophytic Ve Wetland Hydrol Remarks: HYDROLOGY Wetland Hydrol Primary	Ology Indicate A1 - Surface A2 - High Wa A3 - Saturatie B1 - Water M B2 - Sedimer B3 - Drift De B4 - Algal M B5 - Iron De B7 - Inundati	or Hydrology national nationa	turally pr	y Yes yes ors are no	ot presen B9 - Wate B13 - Aqu B14 - Truc C1 - Hydr C3 - Oxidi C4 - Press	er-Stained atic Fauna e Aquatic ogen Sulfi zed Rhizo ence of Re ent Iron Re Muck Suri ge or Well	Leaves a Plants de Odor spheres on Living Roots eduction in Tilled Soils face Data	NU Hydric Soils	Present? bling Point Secondary:	Township: Range: Within A Wetla B6 - Surface Sc B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	oil Cracks Patterns n Water Table urrows Visible on Aer Stressed Plar ic Position	es No
		ditions on the site ty or Hydrology \Box sig				(If no, expla	ain in remarks) Are normal circumstai	✓ Yes □	No	Section:	19 4S	
Landform: Slope (%):	Depressior 1	Latitude:	40.6740		al Relief: ongitude:			Datum:	NAD 83	Sample Point: Community ID:		
Soil Unit:	Pewamo silty	clay loam, 0 to 1 perc	ent slopes	i			NWI/WWI Classification:	N/A		Wetland ID:	Wetland 3	
Project/Site: Applicant: Investigator #1:	0	e Renewable Energy	/	Invecti	gator #2:		Stantec Project #:	2028113328		Date: County: State:	08/04/20 Allen Ohio	
D!	District Online	Destant					O44 D!4-#-	0000440000		D-4	00/04/00	



Project/Site: Birch Solar Project Wetland ID: Wetland 3 Sample Point: SP08 VEGETATION (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status Quercus bicolor 35 **FACW** Fraxinus pennsylvanica 2. 15 **FACW** Number of Dominant Species that are OBL, FACW, or FAC: 5 (A) 3. Acer negundo 5 Ν FAC 4. Total Number of Dominant Species Across All Strata: 5 (B) 5. __ 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) 7. 8. --**Prevalence Index Worksheet** 9. --__ --Total % Cover of: Multiply by: 10 OBL spp. x 1 = Total Cover = 55 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Fraxinus pennsylvanica 5 **FACW** UPL spp. x 5 = 2 **0** (B) 3. Total 0 (A) --4. 5. Prevalence Index = B/A = N/A 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ☑ No Rapid Test for Hydrophytic Vegetation 10 ✓ Yes ☐ No --Dominance Test is > 50% Total Cover = ☐ Yes ☐ No Prevalence Index is ≤ 3.0 * □ No ☐ Yes Morphological Adaptations (Explain) * \square Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Cinna arundinacea 30 **FACW** * Indicators of hydric soil and wetland hydrology must be 2. Boehmeria cylindrica 5 Ν OBL present, unless disturbed or problematic. 3. Pilea pumila 10 Ν **FACW** 4. 5 Ν **FACW Definitions of Vegetation Strata:** Laportea canadensis 5. Carex grayi 30 **FACW** 6 Carex vulpinoidea 5 Ν **FACW** Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. **FACW** 7. 20 Lysimachia nummularia Ν 8. Symphyotrichum novae-angliae 5 Ν **FACW** Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. Impatiens capensis 5 Ν **FACW** 10. Mimulus ringens 5 Ν OBL 11. ------Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = 120 Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☑ Yes ☐ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



	A12 - Thick I S1 - Sandy N	Dark Surface		Depth:	F8 - Redo	x Depress	sions	¹ Indicators of hydrophy Hydric Soil		vetland hydrology must be	Yes V No	·
	A12 - Thick I S1 - Sandy N S3 - 5 cm Mu	Dark Surface Nuck Mineral			F8 - Redo	x Depress	sions					·
	A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratifie	istic en Sulfide d Layers		cators ai	re not pre S4 - Sand S5 - Sand S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	y Gleyed y Redox ped Matrix ny Muck M ny Gleyed eted Matri ox Dark Su	Matrix c ineral Matrix x vrface		S7 - Dark Si F12 - Iron-M TF12 - Very	Prairie Redox		
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											_	
Depth 0	Depth 10	Horizon 1	Color 10YR	(Moist) 4/3	% 100		Color (Moist)	%	Type 	Location 	(e.g. clay, s	
Тор	Bottom			Matrix		5 Someontid	Redo	ox Features	ı	1	Text	
Map Unit Name Profile Descrip		Pewamo silty clay I					tion, D=Depletion, RM=Reduced Matrix, CS=C	Covered/Coated Sand Gra	ins: Location: PI =Pr	ore Lining, M=Matrix)		
SOILS												
Remarks:	ou Data (Sile	am gaage, momonii	y won, ac	nai prioto	o, providu	o mopeou	onoj, ii avaliabie.					
Surface Water Water Table Pr Saturation Pres	Present? resent? sent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No eam gauge, monitoring	Depth: Depth:	rial phata	(in.) (in.) (in.)	e inencet	ope) if available:	Wetland Hy	drology Pr	resent?	Yes ☑ No)
Hydrophytic Ve Wetland Hydro Remarks: HYDROLOGY Wetland Hydr Primary	ology Indica A1 - Surface A2 - High Wa A3 - Saturati B1 - Water M B2 - Sedimer B3 - Drift Der B4 - Algal Ma B5 - Iron Der B7 - Inundati	ators (Check here if Water ater Table on flarks the Deposits posits at or Crust	agery		Dot presen B9 - Wate B13 - Aqu B14 - True C1 - Hydr C3 - Oxidi C4 - Prese	t ☑): er-Stained atic Fauna e Aquatic ogen Sulfi zed Rhizz ence of Re ent Iron Re Muck Suri ge or Well	Leaves a Plants de Odor espheres on Living Roots educetion in Tilled Soils face Data	Hydric Soils Is This Samp	Secondary:	Within A Wetla B6 - Surface So B10 - Drainage C2 - Dry-Seaso C8 - Crayfish B C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	oil Cracks Patterns n Water Table urrows Visible on Aeri Stressed Plami ic Position	ial Imagery
SUMMARY OF	FINDINGS		turuny pr	obiernat	10:			110-		range.	OL DII	. 14/7 (
		or Hydrology □ sig or Hydrology □ na					Are normal circumstar Ves	nces present? N□	•	Township: Range:	4S 6E Dir	: N/A
Are climatic/hyd	drologic cond	ditions on the site ty	pical for	this time	of year?		ain in remarks)	☑ Yes □	No	Section:	19	
Landform: Slope (%):	Rise 1	Latitude:	40 6741		al Relief: ongitude:			Datum:	NAD 83	Sample Point: Community ID:		
Soil Unit:		clay loam, 0 to 1 perc	ent slopes	;			NWI/WWI Classification:	N/A		Wetland ID:	Wetland 3	
Applicant: Investigator #1:	Lightsource	e Renewable Energy	У	Investi	gator #2:		,			County: State:	Allen Ohio	
Project/Site:	Birch Solar	Project					Stantec Project #:	2028113328		Date:	08/05/20	



Project/Site: Birch Solar Project Wetland ID: Wetland 3 Sample Point: SP09 **VEGETATION** (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status Carya cordiformis 65 **FACU** 2. 5 Ν FAC Acer negundo Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) 3. Fraxinus pennsylvanica 5 Ν **FACW** 4. Ulmus americana 5 Ν **FACW** Total Number of Dominant Species Across All Strata: 3 (B) 5. --6. Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B) 7. **Prevalence Index Worksheet** 8. --Total % Cover of: 9. --__ --Multiply by: 10 OBL spp. _ x 1 = --Total Cover = 80 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Fraxinus pennsylvanica Ν **FACW** UPL spp. x 5 = 2. Ν FAC Acer negundo 3 0 (B) 3. Total 0 (A) --4. 5. Prevalence Index = B/A = N/A 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ✓ No Rapid Test for Hydrophytic Vegetation 10 ✓ Yes ☐ No --Dominance Test is > 50% Total Cover = ☐ Yes □ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Persicaria virginiana 10 Ν **FAC** * Indicators of hydric soil and wetland hydrology must be 2. Lysimachia nummularia **FACW** present, unless disturbed or problematic. 3. 15 FACW Cinna arundinacea 4. Ν FAC **Definitions of Vegetation Strata:** Acer negundo 2 5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. --Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☑ Yes ☐ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



	Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A10 - 2 cm M A11 - Deplet A12 - Thick I S1 - Sandy M	istic en Sulfide d Layers /luck ed Below Dark Surface Dark Surface /luck Mineral ucky Peat or Peat		cators ar		y Gleyed I y Redox oed Matrix ny Muck M ny Gleyed eted Matrix ox Dark Su eted Dark	Matrix ineral Matrix C rface Surface		S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Prairie Redox urface langanese Massi Shallow Dark St ain in Remarks)	
NRCS Hydric	Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A10 - 2 cm N A11 - Deplet A12 - Thick [S1 - Sandy N S3 - 5 cm Mu	ndicators (check he pipedon istic en Sulfide d Layers Muck ed Below Dark Surface Dark Surface Muck Mineral ucky Peat or Peat	 ere if indid	cators ar	re not pre S4 - Sand S5 - Sand S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	sent y Gleyed y Redox y Muck M my Muck M my Gleyed deted Matrix x Dark Sueted Dark): Matrix Matrix Matrix C rface Surface	Indicators		natic Soils 1 Prairie Redox urface langanese Masse Shallow Dark St ain in Remarks)	es urface
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	+										1
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Depth 0	Depth 10	Horizon 1	Color 10YR	(Moist) 5/3	% 100		Color (Moist)	%	Type 	Location 	(e.g. clay, sand, loar silty clay
Тор	Bottom			Matrix		. J-concentrati	Redo	ox Features	ı		Texture
Map Unit Name		Pewamo silty clay I					ion, D=Depletion, RM=Reduced Matrix, CS=0	Covered/Coated Sand Gra	ins: Location: PI =P	ore Lining M=Matrix)	
SOILS											
Describe Record Remarks:	ded Data (stre	eam gauge, monitorin	g well, ae	rial photo	s, previou	s inspecti	ons), if available:		N/A		
Field Observa Surface Water Water Table Pr Saturation Pres	Present? resent? sent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No	Depth: Depth: Depth:		(in.) (in.) (in.)			Wetland Hy		esent?	Yes ☑ No
Primary	rology Indicate A1 - Surface A2 - High Wa A3 - Saturati B1 - Water N B2 - Sedime B3 - Drift De B4 - Algal B5 - Iron De B7 - Inundati	ators (Check here i Water ater Table on Marks nt Deposits posits at or Crust	agery		Dt presen B9 - Wate B13 - Aqu B14 - True C1 - Hydr C3 - Oxidi C4 - Prese	t ☑): er-Stained attic Fauna e Aquatic I ogen Sulfi ized Rhizo ence of Re ent Iron Re Muck Surfi ge or Well	Plants de Odor spheres on Living Roots educed Iron duction in Tilled Soils ace Data	Hydric Soils Is This Samp	Secondary:	B6 - Surface So B10 - Drainage C2 - Dry-Seaso C8 - Crayfish Bi C9 - Saturation D1 - Stunted or D2 - Geomorphi D5 - FAC-Neutr	oil Cracks Patterns n Water Table urrows Visible on Aerial Imagery Stressed Plants ic Position
SUMMARY OF		10									
		or Hydrology ☐ sig or Hydrology ☐ na					Are normal circumstal ✓ Yes	nces present? N□	,	Township: Range:	4S 6E Dir: N/A
		ditions on the site ty				(If no, expla	ain in remarks) Are normal circumsta	☑ Yes □	No	Section:	19
Slope (%):	Talf 1	Latitude:		989°N L		-84.218		Datum:	NAD 83	Sample Point: Community ID:	
	Pewamo silty	y clay loam, 0 to 1 perc	ent slopes	;			WI/WWI Classification:	PFO1A		Wetland ID:	Non-JD
Soil Unit: Landform:	: Aaron Kwo	e Renewable Energ llek	y	Investi	gator #2:					County: State:	Allen Ohio
Landform:	0						Stantec Project #:	2028113328		Date:	08/05/20



Project/Site: Birch Solar Project Wetland ID: Non-JD Sample Point: SP10 **VEGETATION** (Species identified in all uppercase are non-native species.) % Cover Dominant **Dominance Test Worksheet** Species Name Ind.Status Acer saccharum 60 **FACU** 2. 20 FAC Asimina triloba Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) 3. Carya cordiformis 10 Ν FACU 4. Ulmus rubra 10 Ν FAC Total Number of Dominant Species Across All Strata: 2 (B) 5. --6. Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B) 7. **Prevalence Index Worksheet** 8. --9. --__ --Total % Cover of: Multiply by: 10 OBL spp. x 1 = Total Cover = 100 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ Asimina triloba Ν **FAC** UPL spp. x 5 = 2. Ν **FACU** Acer saccharum 3. Total 108 (A) 396 (B) 4. 5. Prevalence Index = B/A = 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ✓ No Rapid Test for Hydrophytic Vegetation ☑ No 10 Yes --Dominance Test is > 50% Total Cover = ☐ Yes ✓ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * Geum canadense Ν **FAC** * Indicators of hydric soil and wetland hydrology must be 2. Asimina triloba Ν FAC present, unless disturbed or problematic. 3. 4. **Definitions of Vegetation Strata:** --5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = Woody Vine Stratum (Plot size: 30 ft radius) 2. Hydrophytic Vegetation Present ☐ Yes ☑ No 3. 4. 5. Total Cover = 0 Remarks: Additional Remarks:



Remarks:												
(If Observed)	Type:			Depth:				Hydric Soil	Present?		Yes ☑ No)
	A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifiee A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm M	stic en Sulfide d Layers luck ed Below Dark Surface Dark Surface			re not pre S4 - Sand S5 - Sand S6 - Stripl F1 - Loan F2 - Loan F3 - Deple F6 - Redo F7 - Deple F8 - Redo	y Gleyed ly Redox ped Matrix ny Muck M ny Gleyed eted Matrix x Dark Su eted Dark	Matrix kilineral Matrix x rface Surface	1 Indicators of hydrophyt	S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Prairie Redox urface anganese Mass Shallow Dark Si in in Remarks)	present, unless distu	·
		<u></u>									-	<u>-</u>
											_	
											-	
											_	
10	20	2	10YR	5/6	100						sandy	
Depth 0	Depth 10	Horizon 1	Color 10YR	(Moist) 4/4	% 100		Color (Moist)	%	Type 	Location 	(e.g. clay, s	
Тор	Bottom			Matrix		o. o-concentral	Redo	x Features		1	Text	
Map Unit Name Profile Descrip		Blount silt loam, en		_		_	tion, D=Depletion, RM=Reduced Matrix, CS=0	Covered/Coated Sand Grain	ns: Location: PI =Pr	ore Lining, M=Matrix)		
SOILS		DI (20)		0:								
Remarks:												
Saturation Pres	ent?	☐ Yes ☑ No ☐ Yes ☑ No eam gauge, monitoring	Depth: Depth: g well, ae	rial photo	(in.) (in.) s, previou	s inspecti	ons), if available:		N/A			
Field Observat Surface Water Water Table Pr	Present?	☐ Yes ☑ No ☐ Yes ☑ No	Depth:		(in.)			Wetland Hyd	drology Pr	esent? □	Yes ☑ No)
Primary.	getation Pre ogy Present ology Indica A1 - Surface A2 - High Wa A3 - Saturati B1 - Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundati	ators (Check here if Water ater Table on larks tt Deposits oosits at or Crust	agery		Dot presen B9 - Wate B13 - Aqu B14 - True C1 - Hydr C3 - Oxidi C4 - Prese	t ☑): er-Stained atic Fauna e Aquatic I ogen Sulfi zed Rhizce ence of Re ent Iron Re Muck Surl ge or Well	a Plants de Odor sspheres on Living Roots educed Iron sduction in Tilled Soils face Data	Hydric Soils Is This Samp	Secondary:	B6 - Surface So B10 - Drainage C2 - Dry-Seaso C8 - Crayfish Bi C9 - Saturation D1 - Stunted or D2 - Geomorph D5 - FAC-Neutr	il Cracks Patterns n Water Table urrows Visible on Aeri Stressed Plami c Position	ial Imagery
Are Vegetation	\square , Soil \square ,	or Hydrology □ na						No □		Range:	6E Dir	r: N/A
		ditions on the site ty or Hydrology sig				(If no, expla	ain in remarks) Are normal circumstai		No	Section: Township:	17 4S	
Slope (%):	2	Latitude:							NAD 83	Community ID:		
Soil Unit: Landform:	Thackery loa Sideslope	m, sandy substratum, (to 2 perc	ent slopes	S		NWI/WWI Classification: Local Relief: Concvex	PFO1C		Wetland ID: Sample Point:	Non-JD SP11	
Investigator #1:	Michelle Ke	earns			gator #2:					State:	Ohio	
Applicant:	Renewable	Project Lightsource					Stantec Project #:			Date: County:	Allen	



Project/Site: Birch Solar Project Wetland ID: Non-JD Sample Point: SP11 **VEGETATION** (Species identified in all uppercase are non-native species.) **Dominance Test Worksheet** Species Name % Cover Dominant Ind.Status **FACU** Prunus serotina 5 2. Fraxinus pennsylvanica 5 **FACW** Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) 3. Acer saccharum 10 Υ **FACU** 4. Total Number of Dominant Species Across All Strata: 6 (B) 5. __ 6. Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B) 7. 8. --**Prevalence Index Worksheet** 9. ------Total % Cover of: Multiply by: 10 OBL spp. x 1 = Total Cover = 20 FACW spp. x 2 = FAC spp. x 3 = x 4 = Sapling/Shrub Stratum (Plot size: 15 ft radius) FACU spp. _ 100 Lonicera morrowii 10 **FACU** UPL spp. 50 x 5 = 250 2. 3. Total 110 (A) 420 (B) --4. Prevalence Index = B/A = 5. 6. 7. 8. **Hydrophytic Vegetation Indicators:** 9. Yes ✓ No Rapid Test for Hydrophytic Vegetation ☑ No 10 Yes --Dominance Test is > 50% Total Cover = ☐ Yes ✓ No Prevalence Index is ≤ 3.0 * ☐ Yes ☐ No Morphological Adaptations (Explain) * ☐ Yes Herb Stratum (Plot size: 5 ft radius) ☐ No Problem Hydrophytic Vegetation (Explain) * * Indicators of hydric soil and wetland hydrology must be 2. present, unless disturbed or problematic. 3. 4. **Definitions of Vegetation Strata:** --5. 6 Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 7. 8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 9. 10. 11. __ Herb - All herbaceous (non-woody) plants, regardless of size, 12 and woody plants less than 3.28 ft. tall. 13. 14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15 Total Cover = 0 Woody Vine Stratum (Plot size: 30 ft radius) Vitis riparia **FACW UPL** 2 Rubus occidentalis 50 Hydrophytic Vegetation Present ☐ Yes ☑ No 3. 4. 5. Total Cover = 80 Remarks: No herbaceous layer, 20% open ground Additional Remarks:

BIRCH SOLAR PROJECT WETLAND AND WATERBODY DELINEATION REPORT

B.2 ORAM FORMS



B.2

	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Varaion 5 0	Background Information	
Version 5.0	Scoring Boundary Worksheet	
	Narrative Rating	Ohio EPA, Division of Surface Water
	Field Form Quantitative Rating	Final: February 1, 2001
	ORAM Summary Worksheet	
	Wetland Categorization Worksheet	

Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx

Background Information

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August 3, 2020

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Name of Wetland: Wetland 1

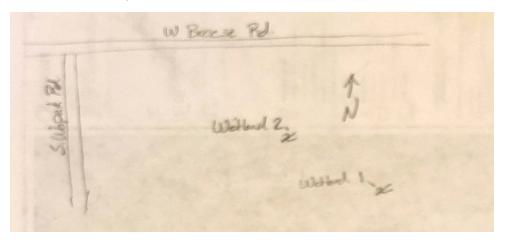
Vegetation Communit(ies):

PFO

HGM Class(es):

Depression

Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.



Lat/Long or UTM Coordinate 40.676986, -84.192615	
USGS Quad Name Cridersville, Ohio	
County Allen	
Township Shawnee	
Section and Subsection 20, 4S, 6E	
Hydrologic Unit Code 04100007201	
Site Visit 8/3/2020	
National Wetland Inventory Map Yes	
Ohio Wetland Inventory Map No	
Soil Survey Allen County Soil Survey	
Delineation report/map Wetland and Water Body Delineation Report, Figure 4	

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Summary: Application - 21 of 31 (Exhibit P – Part 1 of 2 - Wetland and Waterbody Delineation Report) electronically filed by Christine M.T. Pirik on behalf of Birch Solar 1, LLC