

# Frontier Solar Project

## Wetland Delineation Report

Marion and Washington Counties, Kentucky

January 17, 2024

Prepared by:

**Environmental Resources Management, Inc.**

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## 1 INTRODUCTION

Environmental Resources Management, Inc. (ERM) has been retained by FRON bn, LLC to conduct a routine wetland delineation within the proposed Frontier Solar Project (Project). The following report describes the existing site conditions, methodologies, and findings associated with this site assessment.

All figures referenced in the following report are provided in Appendix A, photographs are provided in Appendix B, and United States Army Corps of Engineers (USACE) wetland data forms can be found in Appendix C.

## 2 SITE LOCATION

The Project is located in Marion and Washington Counties, Kentucky (37.624636° N, 85.269594° W) (Appendix A; Figures 1 and 2). Access to the proposed Project area is available via State Route 429 (St. Rose Road), which runs along the western boundary of the Project, and State Route 55 (Springfield-Lebanon Hill Road), which provides access points to all portions of the Project as it runs through the center of the boundary (Appendix A; Figure 1).

The Project is located on the Saint Catherine (1984) and Lebanon West (1994) U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps (Appendix A; Figure 2). The Project is in the Level IV Outer Bluegrass physiographic region and is located within the Upper Cartwright Creek watershed (Hydrologic Unit Code: 051401030301).

## 3 EXISTING SITE CONDITIONS

The study area currently consists of approximately 2,959 acres of agricultural land and unmanaged forested areas (Appendix A and Appendix B). Adjacent land consists of mostly agricultural land and residential properties.

The topography within the Project area is generally sloped, ranging from 0 to 60 percent slopes with elevation ranging from approximately 700 to 900 feet above mean sea level (AMSL). Surface water on the Project generally flows north towards Jackson Branch and ultimately into Cartwright Creek northeast of the Project (Appendix A; Figure 2).

Soils within the Project area consist primarily of silty clay loams and silt loams with slopes ranging from 2 to 60 percent. The following soil mapping units were identified on the Project by using the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) county soil survey (Appendix A; Figure 3):

- Cynthiana-Faywood-Rock outcrop complex, 20 to 60 percent slopes, eroded (CyF2)
- Dunning silty clay loam, 0 to 2 percent slopes, frequently flooded (Du)
- Elk silt loam, 2 to 6 percent slopes, rarely flooded (EkB)
- Elk silt loam, 6 to 12 percent slopes (EkC)
- Elk silt loam, 0 to 2 percent slopes, rarely flooded (ErA)
- Elk silt loam, 2 to 6 percent slopes, rarely flooded (ErB)
- Elk silt loam, 6 to 12 percent slopes, rarely flooded (ErC)
- Faywood silty clay loam, 6 to 12 percent slopes, eroded (FaC2)

- Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD)
- Faywood silty clay loam, 12 to 20 percent slopes, eroded (FaD2)
- Fairmount-Rock outcrop complex, 20 to 50 percent slopes (FaF)
- Faywood-Cynthiana complex, 20 to 30 percent slopes, eroded, very rocky (FcE2)
- Faywood silt loam, 2 to 6 percent slopes (FdB)
- Faywood silty clay loam, 6 to 12 percent slopes, eroded (FoC2)
- Faywood silty clay loam, 12 to 20 percent slopes, eroded (FoD2)
- Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3)
- Lowell silty clay loam, 6 to 12 percent slopes, eroded (LoC2)
- Lowell silty clay loam, 12 to 20 percent slopes, eroded (LoD2)
- Lowell silty clay, 6 to 12 percent slopes, severely eroded (LpC3)
- Lowell silty clay, 12 to 20 percent slopes, severely eroded (LpD3)
- Lowell silty clay loam, 6 to 12 percent slopes, severely eroded (LwC3)
- Newark silt loam, frequently flooded (Ne)
- Nicholson silt loam, 2 to 6 percent slopes (NhB)
- Nicholson silt loam, 6 to 12 percent slopes (NhC)
- Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No)
- Otwell silt loam, 2 to 8 percent slopes (OtB)
- Sandview silt loam, 2 to 6 percent slopes (SaB)
- Shelbyville silt loam, 2 to 6 percent slopes (SeB)
- Shelbyville silt loam, 6 to 12 percent slopes (SeC)
- Boonesboro silt loam, 0 to 4 percent slopes, frequently flooded (uBofA)
- Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc)
- Lowell-Faywood silt loams, 12 to 20 percent slopes (uLfd)
- Lowell-Sandview silt loams, 2 to 6 percent slopes (uLsoB)
- Water (W)

Dunning silty clay loam, Nolin silt loam, and Newark silt loam are hydric soils identified within the Project. All other soils identified within the Project are well drained and are considered non-hydric.

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) indicates approximately 0.36 acres of palustrine emergent (PEM) wetlands, 44.93 acres of freshwater pond, and 37.92 acres of riverine features within the Project boundaries (Appendix A; Figure 4). The National Hydrography Dataset (NHD) and USGS Maps indicate approximately 72, 576 linear feet of stream or river within the Project boundaries (Appendix A; Figure 2).

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps 21155C0160D, 21155C0050D, 21229C0200D, and 21229C0215D, effective May 23, 2023, approximately

249.15 acres of the Project boundary is located within zone A, which has a one percent chance of flood annually (Appendix A; Figure 2).

## 4 METHODOLOGY

Waters of the United States (WOTUS), including wetlands, are federally protected under Section 404 of the Clean Water Act (CWA). On August 29, 2023, the agencies issued a final rule to amend the January 2023 Rule, to conform the definition of “waters of the United States” to the Supreme Court’s decision in Sackett. This conforming rule amends the provisions of the agencies’ definition of “waters of the United States” that are invalid under the Supreme Court’s interpretation of the CWA in the Sackett decision and became effective on September 8, 2023 upon publication in the Federal Register. The definition of a wetland is *“those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas”* (Code of Federal Regulations §230.3(t)).

ERM delineated wetlands and WOTUS at the Project on May 31 – June 3, 2022, November 13 – November 18, 2022, and December 6 – 13, 2023 in accordance with the three-parameter methodology outlined in the *Corps of Engineers Wetlands Delineation Manual* (1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (2012, Version 2.0), and per recent guidance issued jointly by the U.S. Environmental Protection Agency and the USACE<sup>1</sup>.

The three parameters required for identifying a jurisdictional wetland are as follows:

- The presence of hydrophytic vegetation - Hydrophytic vegetation is determined by the dominant species present at any given data point, where each species is assigned a plant indicator status as to its preference/tolerance for wetland conditions. Data points having dominant species that are greater than 50 percent facultative or wetter are considered to meet the hydrophytic vegetation criterion.
- The presence of hydrology - Each data point is evaluated for evidence of wetland hydrology or persistent saturation or inundation of soils. The Manual identifies both primary and secondary hydrologic indicators, and one primary indicator or two secondary indicators must be observed in order for the sample point to meet the hydrology criterion. Indicators include saturated soils in the upper 12 inches, inundation, water marks, drift lines, sediment deposits, drainage patterns, oxidized root channels in the upper 12 inches, water-stained leaves, local soil survey data, and others.
- The presence of hydric soils - Soil in each sample plot is sampled with a soil spade to a depth of at least 18 inches, or to the B horizon, whichever appears first. The delineator obtains a profile description and identifies hydric soil indicators based on soil texture(s) and soil color(s). Soil textures are determined by manual tactile sampling. Soil colors (in a moist condition) are compared to Munsell Soil-Color charts (2009 Edition, 2015 production year, Munsell Color, Grand Rapids, MI, USA) to determine hue, value, and chroma to determine if hydric characteristics are present.

An area is classified as a wetland only in instances where all three parameters exist under normal circumstances. If one or more criteria are absent, the area is deemed upland.

To identify wetlands and waters within the Project, the area was traversed on foot. Data points were taken within the Project to verify or refute the presence of wetland soils, vegetation, and hydrology. Completed USACE Eastern Mountains and Piedmont Region wetland determination data forms are presented in Appendix C.

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<sup>1</sup> EPA Current Definition of “Waters of the United States”. 18 December 2023. <https://www.epa.gov/wotus/current-implementation-waters-united-states>

ERM utilized a Trimble Submeter Global Positioning System to obtain locations for all data recorded during the field reconnaissance. This unit is capable of sub-meter accuracy (following post-processing and differential correction via a known base station) and allows the digital data to be incorporated into drawings for mapping/design purposes.

## 5 FINDINGS

ERM conducted field delineations on May 31 – June 3, 2022, November 13 – November 18, 2022, and December 6 – 13, 2023. The field delineations identified 46 palustrine emergent (PEM) wetlands totaling 6.87 acres, seven palustrine forested (PFO) wetlands totaling 0.71 acres, six palustrine scrub-shrub (PSS) wetlands totaling 0.68 acres, 52 open water palustrine unconsolidated bottom (PUB) ponds totaling 65.40 acres, 84 ephemeral streams totaling 31,559 linear feet, 45 intermittent streams totaling 31,735 linear feet, 13 perennial streams totaling 37,260 linear feet, and 14 upland ditches totaling 3,657 linear feet throughout the Project (Appendix A; Figure 4). Approximately 6.11 acres of PEM wetland, 0.22 acres of PFO wetland, 0.56 acres of PSS wetland, and 42.38 acres of open water/PUB pond are potential jurisdictional features. Approximately 0.78 acres of PEM wetland, 0.49 acres of PFO wetland, 0.12 acres of PSS wetland, 23.02 acres of open water/PUB pond are potentially non-jurisdictional features. Approximately 37,260 linear feet of perennial streams, 33,616 linear feet of intermittent streams, 7,009 linear feet of ephemeral streams, and 964 linear feet of upland ditches are potential jurisdictional features. Approximately 24,332 linear feet of ephemeral streams and 2,695 linear feet of upland ditches are potentially non-jurisdictional features. Table 1 summarizes the wetlands identified during the delineation. Table 2 summarizes the waterbodies delineated during the delineation. A photographic log is presented in Appendix B and completed USACE data forms are presented in Appendix C.

**Table 1: Wetlands identified within the Frontier Solar Project, Marion and Washington Counties, Kentucky.**

Feature	Cowardin Classification <sup>1</sup>	Area (Acres) <sup>2</sup>	Potential Jurisdictional Status <sup>3</sup>	Figure
Wetland 1	PEM	0.148	Jurisdictional	4.4
Wetland 2	PFO	0.021	Jurisdictional	4.7
Wetland 3	PEM	0.106	Non-Jurisdictional	4.7
Wetland 4	PEM	0.257	Jurisdictional	4.7
Wetland 5	PEM	0.259	Jurisdictional	4.3
Wetland 6	PEM	0.136	Jurisdictional	4.3
Wetland 7	PFO	0.054	Jurisdictional	4.3
Wetland 8	PFO	0.045	Jurisdictional	4.2
Wetland 9	PEM	0.427	Jurisdictional	4.7
Wetland 10	PEM	0.169	Jurisdictional	4.7
Wetland 11	PEM	0.059	Jurisdictional	4.7
Wetland 12	PEM	0.023	Jurisdictional	4.7
Wetland 13	PEM	0.109	Non-Jurisdictional	4.3, 4.5
Wetland 14	PEM	0.072	Jurisdictional	4.5
Wetland 15	PEM	0.021	Jurisdictional	4.5

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<b>Feature</b>	<b>Cowardin Classification<sup>1</sup></b>	<b>Area (Acres)<sup>2</sup></b>	<b>Potential Jurisdictional Status<sup>3</sup></b>	<b>Figure</b>
Wetland 16	PEM	0.077	Non-Jurisdictional	4.5
Wetland 17	PEM	0.181	Jurisdictional	4.5
Wetland 18	PEM	0.029	Non-Jurisdictional	4.3
Wetland 19	PEM	0.038	Jurisdictional	4.6
Wetland 20	PEM	0.007	Jurisdictional	4.8
Wetland 21	PEM	0.261	Jurisdictional	4.8, 4.9
Wetland 22	PEM	0.174	Jurisdictional	4.16
Wetland 23	PSS	0.032	Jurisdictional	4.16
Wetland 24	PEM	0.282	Jurisdictional	4.16
Wetland 25	PEM	0.036	Jurisdictional	4.16
Wetland 26	PEM	0.025	Jurisdictional	4.13
Wetland 27	PEM	0.055	Jurisdictional	4.13
Wetland 28	PSS	0.032	Jurisdictional	4.13
Wetland 29	PEM	0.049	Jurisdictional	4.13
Wetland 30	PEM	0.008	Non-Jurisdictional	4.8
Wetland 31	PEM	0.023	Jurisdictional	4.12
Wetland 32	PEM	0.033	Jurisdictional	4.12
Wetland 33	PEM	0.02	Non-Jurisdictional	4.12
Wetland 34	PEM	0.104	Non-Jurisdictional	4.12
Wetland 35	PEM	0.024	Non-Jurisdictional	4.12
Wetland 36	PEM	0.194	Jurisdictional	4.12
Wetland 37	PSS	0.027	Jurisdictional	4.13
Wetland 38	PEM	1.944	Jurisdictional	4.12
Wetland 39	PFO	0.101	Jurisdictional	4.9
Wetland 40	PFO	0.119	Non-Jurisdictional	4.10
Wetland 41	PEM	0.053	Jurisdictional	4.10
Wetland 42	PSS	0.319	Jurisdictional	4.9, 4.10
Wetland 43	PFO	0.059	Non-Jurisdictional	4.10
Wetland 44	PEM	0.17	Jurisdictional	4.7
Wetland 45	PEM	0.072	Non-Jurisdictional	4.7
Wetland 46	PEM	0.067	Non-Jurisdictional	4.7
Wetland 47	PFO	0.308	Non-Jurisdictional	4.8
Wetland 48	PSS	0.121	Non-Jurisdictional	4.8
Wetland 49	PEM	0.049	Non-Jurisdictional	4.8
Wetland 50	PEM	0.405	Jurisdictional	4.1
Wetland 51	PEM	0.169	Jurisdictional	4.5
Wetland 52	PEM	0.071	Jurisdictional	4.5

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<b>Feature</b>	<b>Cowardin Classification<sup>1</sup></b>	<b>Area (Acres)<sup>2</sup></b>	<b>Potential Jurisdictional Status<sup>3</sup></b>	<b>Figure</b>
Wetland 53	PEM	0.069	Jurisdictional	4.5
Wetland 54	PEM	0.101	Non-Jurisdictional	4.5
Wetland 55	PEM	0.038	Jurisdictional	4.5
Wetland 56	PSS	0.15	Jurisdictional	4.5
Wetland 57	PEM	0.084	Jurisdictional	4.5
Wetland 58	PEM	0.166	Jurisdictional	4.5
Wetland 59	PEM	0.007	Jurisdictional	4.2
Open Water 1	Open Water/PUB	0.556	Jurisdictional	4.7
Open Water 2	Open Water/PUB	0.532	Jurisdictional	4.7
Open Water 3	Open Water/PUB	1.331	Non-Jurisdictional	4.7
Open Water 4	Open Water/PUB	0.993	Non-Jurisdictional	4.7
Open Water 5	Open Water/PUB	0.406	Non-Jurisdictional	4.3
Open Water 6	Open Water/PUB	0.042	Non-Jurisdictional	4.5
Open Water 7	Open Water/PUB	2.373	Jurisdictional	4.3
Open Water 8	Open Water/PUB	0.388	Non-Jurisdictional	4.5
Open Water 9	Open Water/PUB	0.502	Non-Jurisdictional	4.3
Open Water 10	Open Water/PUB	0.491	Non-Jurisdictional	4.7
Open Water 11	Open Water/PUB	0.105	Non-Jurisdictional	4.7
Open Water 12	Open Water/PUB	1.365	Non-Jurisdictional	4.7
Open Water 13	Open Water/PUB	0.089	Jurisdictional	4.3
Open Water 14	Open Water/PUB	1.05	Non-Jurisdictional	4.3
Open Water 15	Open Water/PUB	0.557	Non-Jurisdictional	4.4
Open Water 16	Open Water/PUB	0.074	Non-Jurisdictional	4.2
Open Water 17	Open Water/PUB	0.023	Non-Jurisdictional	4.5
Open Water 18	Open Water/PUB	1.824	Non-Jurisdictional	4.8
Open Water 19	Open Water/PUB	0.445	Non-Jurisdictional	4.8
Open Water 20	Open Water/PUB	0.541	Non-Jurisdictional	4.9
Open Water 21	Open Water/PUB	0.598	Non-Jurisdictional	4.9
Open Water 22	Open Water/PUB	2.407	Non-Jurisdictional	4.11
Open Water 23	Open Water/PUB	0.103	Non-Jurisdictional	4.11
Open Water 24	Open Water/PUB	15.67	Jurisdictional	4.12
Open Water 25	Open Water/PUB	0.588	Jurisdictional	4.11, 4.12
Open Water 26	Open Water/PUB	0.064	Jurisdictional	4.12
Open Water 27	Open Water/PUB	0.146	Non-Jurisdictional	4.11, 4.12
Open Water 28	Open Water/PUB	0.11	Non-Jurisdictional	4.12
Open Water 29	Open Water/PUB	0.147	Non-Jurisdictional	4.12
Open Water 30	Open Water/PUB	11.086	Jurisdictional	4.12



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Feature	Cowardin Classification <sup>1</sup>	Area (Acres) <sup>2</sup>	Potential Jurisdictional Status <sup>3</sup>	Figure
Open Water 31	Open Water/PUB	0.624	Non-Jurisdictional	4.12
Open Water 32	Open Water/PUB	1.899	Non-Jurisdictional	4.12
Open Water 33	Open Water/PUB	0.763	Non-Jurisdictional	4.16
Open Water 34	Open Water/PUB	1.926	Jurisdictional	4.15, 4.16
Open Water 35	Open Water/PUB	0.66	Non-Jurisdictional	4.16
Open Water 36	Open Water/PUB	0.527	Non-Jurisdictional	4.16
Open Water 37	Open Water/PUB	1.041	Jurisdictional	4.16
Open Water 38	Open Water/PUB	4.028	Jurisdictional	4.16
Open Water 39	Open Water/PUB	0.443	Non-Jurisdictional	4.16
Open Water 40	Open Water/PUB	0.7	Jurisdictional	4.13
Open Water 41	Open Water/PUB	0.734	Non-Jurisdictional	4.12
Open Water 42	Open Water/PUB	0.469	Non-Jurisdictional	4.7
Open Water 43	Open Water/PUB	0.754	Jurisdictional	4.7
Open Water 44	Open Water/PUB	0.499	Non-Jurisdictional	4.9, 4.10
Open Water 45	Open Water/PUB	0.079	Non-Jurisdictional	4.10
Open Water 46	Open Water/PUB	1.476	Jurisdictional	4.5
Open Water 47	Open Water/PUB	0.4	Non-Jurisdictional	4.1
Open Water 48	Open Water/PUB	0.566	Non-Jurisdictional	4.7
Open Water 49	Open Water/PUB	1.501	Jurisdictional	4.7
Open Water 50	Open Water/PUB	0.314	Non-Jurisdictional	4.7
Open Water 51	Open Water/PUB	1.045	Non-Jurisdictional	4.7, 4.8
Open Water 52	Open Water/PUB	0.345	Non-Jurisdictional	4.8

<sup>1</sup> Classifications are based on ERM's professional judgment of actual field conditions.

<sup>2</sup> Feature size within Project

<sup>3</sup> Jurisdictional determinations and boundaries when presented are preliminary and subject to final verification by the U.S. Army Corps of Engineers (USACE) and Kentucky Division of Water (DOW). Jurisdictional features are regulated by USACE and DOW. Non-Jurisdictional features are not regulated by USACE or DOW.

PEM – palustrine emergent wetland

PFO – palustrine forested wetland

PSS – palustrine scrub-shrub

PUB – palustrine unconsolidated pond

**Table 2: Waterbodies identified within the Frontier Solar Project, Marion and Washington Counties, Kentucky.**

Feature	Cowardin Classification <sup>1</sup>	Area (Linear Feet) <sup>2</sup>	Potential Jurisdictional Status <sup>3</sup>	Figure
Ephemeral Stream 1	R6	200	Non-Jurisdictional	4.5, 4.7
Ephemeral Stream 2	R6	92	Non-Jurisdictional	4.7

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<b>Feature</b>	<b>Cowardin Classification<sup>1</sup></b>	<b>Area (Linear Feet)<sup>2</sup></b>	<b>Potential Jurisdictional Status<sup>3</sup></b>	<b>Figure</b>
Ephemeral Stream 3	R6	79	Jurisdictional	4.7
Ephemeral Stream 4	R6	275	Non-Jurisdictional	4.7
Ephemeral Stream 5	R6	671	Non-Jurisdictional	4.7
Ephemeral Stream 6	R6	951	Non-Jurisdictional	4.7
Ephemeral Stream 7	R6	79	Jurisdictional	4.7
Ephemeral Stream 8	R6	653	Non-Jurisdictional	4.7
Ephemeral Stream 9	R6	115	Non-Jurisdictional	4.7
Ephemeral Stream 10	R6	1358	Jurisdictional	4.5
Ephemeral Stream 11	R6	468	Non-Jurisdictional	4.5
Ephemeral Stream 12	R6	553	Non-Jurisdictional	4.5
Ephemeral Stream 13	R6	1415	Non-Jurisdictional	4.5
Ephemeral Stream 14	R6	632	Jurisdictional	4.5
Ephemeral Stream 15	R6	204	Non-Jurisdictional	4.5
Ephemeral Stream 16	R6	221	Non-Jurisdictional	4.5
Ephemeral Stream 17	R6	76	Non-Jurisdictional	4.5
Ephemeral Stream 18	R6	36	Non-Jurisdictional	4.5
Ephemeral Stream 19	R6	357	Non-Jurisdictional	4.5
Ephemeral Stream 20	R6	48	Jurisdictional	4.5
Ephemeral Stream 21	R6	59	Non-Jurisdictional	4.5
Ephemeral Stream 22	R6	254	Jurisdictional	4.5
Ephemeral Stream 23	R6	124	Non-Jurisdictional	4.5
Ephemeral Stream 24	R6	138	Non-Jurisdictional	4.3
Ephemeral Stream 25	R6	455	Non-Jurisdictional	4.3
Ephemeral Stream 26	R6	199	Non-Jurisdictional	4.3
Ephemeral Stream 27	R6	552	Non-Jurisdictional	4.3
Ephemeral Stream 28	R6	74	Non-Jurisdictional	4.3
Ephemeral Stream 29	R6	305	Non-Jurisdictional	4.3
Ephemeral Stream 30	R6	420	Non-Jurisdictional	4.7
Ephemeral Stream 31	R6	386	Non-Jurisdictional	4.3
Ephemeral Stream 32	R6	92	Non-Jurisdictional	4.3
Ephemeral Stream 33	R6	36	Non-Jurisdictional	4.2
Ephemeral Stream 34	R6	1014	Jurisdictional	4.7
Ephemeral Stream 35	R6	433	Non-Jurisdictional	4.8
Ephemeral Stream 36	R6	1,119	Jurisdictional	4.8
Ephemeral Stream 37	R6	1264	Non-Jurisdictional	4.15
Ephemeral Stream 38	R6	699	Non-Jurisdictional	4.12
Ephemeral Stream 39	R6	176	Non-Jurisdictional	4.12
Ephemeral Stream 40	R6	543	Non-Jurisdictional	4.12

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<b>Feature</b>	<b>Cowardin Classification<sup>1</sup></b>	<b>Area (Linear Feet)<sup>2</sup></b>	<b>Potential Jurisdictional Status<sup>3</sup></b>	<b>Figure</b>
Ephemeral Stream 41	R6	831	Non-Jurisdictional	4.13
Ephemeral Stream 42	R6	111	Jurisdictional	4.13
Ephemeral Stream 43	R6	637	Non-Jurisdictional	4.13
Ephemeral Stream 44	R6	296	Non-Jurisdictional	4.13
Ephemeral Stream 45	R6	404	Non-Jurisdictional	4.13
Ephemeral Stream 46	R6	293	Jurisdictional	4.13
Ephemeral Stream 47	R6	508	Non-Jurisdictional	4.13
Ephemeral Stream 48	R6	207	Jurisdictional	4.13
Ephemeral Stream 49	R6	331	Non-Jurisdictional	4.15
Ephemeral Stream 50	R6	942	Non-Jurisdictional	4.16
Ephemeral Stream 51	R6	265	Non-Jurisdictional	4.16
Ephemeral Stream 52	R6	326	Non-Jurisdictional	4.16
Ephemeral Stream 53	R6	305	Non-Jurisdictional	4.13
Ephemeral Stream 54	R6	161	Non-Jurisdictional	4.13
Ephemeral Stream 55	R6	169	Jurisdictional	4.16
Ephemeral Stream 56	R6	79	Non-Jurisdictional	4.16
Ephemeral Stream 57	R6	642	Non-Jurisdictional	4.16
Ephemeral Stream 58	R6	660	Non-Jurisdictional	4.16
Ephemeral Stream 59	R6	72	Non-Jurisdictional	4.13
Ephemeral Stream 60	R6	206	Non-Jurisdictional	4.7
Ephemeral Stream 61	R6	48	Non-Jurisdictional	4.4
Ephemeral Stream 62	R6	158	Non-Jurisdictional	4.4
Ephemeral Stream 63	R6	583	Non-Jurisdictional	4.7
Ephemeral Stream 64	R6	517	Non-Jurisdictional	4.9
Ephemeral Stream 65	R6	467	Non-Jurisdictional	4.9
Ephemeral Stream 66	R6	96	Non-Jurisdictional	4.9
Ephemeral Stream 67	R6	52	Non-Jurisdictional	4.9
Ephemeral Stream 68	R6	501	Non-Jurisdictional	4.10
Ephemeral Stream 69	R6	265	Non-Jurisdictional	4.9
Ephemeral Stream 70	R6	181	Non-Jurisdictional	4.8
Ephemeral Stream 71	R6	306	Non-Jurisdictional	4.8
Ephemeral Stream 72	R6	142	Non-Jurisdictional	4.7, 4.8
Ephemeral Stream 73	R6	200	Non-Jurisdictional	4.8
Ephemeral Stream 74	R6	541	Non-Jurisdictional	4.8
Ephemeral Stream 75	R6	72	Non-Jurisdictional	4.8
Ephemeral Stream 76	R6	1143	Jurisdictional	4.1
Ephemeral Stream 77	R6	601	Non-Jurisdictional	4.1
Ephemeral Stream 78	R6	207	Non-Jurisdictional	4.5

**Frontier Solar Project**  
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<b>Feature</b>	<b>Cowardin Classification<sup>1</sup></b>	<b>Area (Linear Feet)<sup>2</sup></b>	<b>Potential Jurisdictional Status<sup>3</sup></b>	<b>Figure</b>
Ephemeral Stream 79	R6	192	Jurisdictional	4.5
Ephemeral Stream 80	R6	61	Non-Jurisdictional	4.5
Ephemeral Stream 81	R6	198	Jurisdictional	4.5
Ephemeral Stream 82	R6	136	Non-Jurisdictional	4.3
Ephemeral Stream 83	R6	113	Jurisdictional	4.5
Ephemeral Stream 84	R6	291	Non-Jurisdictional	4.9
Intermittent Stream 1	R4	1572	Jurisdictional	4.5, 4.7
Intermittent Stream 2	R4	948	Jurisdictional	4.7
Intermittent Stream 3	R4	764	Jurisdictional	4.3
Intermittent Stream 4	R4	44	Jurisdictional	4.3
Intermittent Stream 5	R4	263	Jurisdictional	4.7
Intermittent Stream 6	R4	216	Jurisdictional	4.7
Intermittent Stream 7	R4	935	Jurisdictional	4.7
Intermittent Stream 8	R4	178	Jurisdictional	4.7
Intermittent Stream 9	R4	495	Jurisdictional	4.7
Intermittent Stream 10	R4	631	Jurisdictional	4.9
Intermittent Stream 11	R4	974	Jurisdictional	4.5
Intermittent Stream 12	R4	899	Jurisdictional	4.7
Intermittent Stream 13	R4	863	Jurisdictional	4.5, 4.6
Intermittent Stream 14	R4	847	Jurisdictional	4.5
Intermittent Stream 15	R4	386	Jurisdictional	4.5
Intermittent Stream 16	R4	1539	Jurisdictional	4.5
Intermittent Stream 17	R4	787	Jurisdictional	4.5
Intermittent Stream 18	R4	741	Jurisdictional	4.3
Intermittent Stream 19	R4	346	Jurisdictional	4.3
Intermittent Stream 20	R4	64	Jurisdictional	4.3
Intermittent Stream 21	R4	127	Jurisdictional	4.3
Intermittent Stream 22	R4	1180	Jurisdictional	4.3
Intermittent Stream 23	R4	1051	Jurisdictional	4.2
Intermittent Stream 24	R4	718	Jurisdictional	4.2
Intermittent Stream 25	R4	116	Jurisdictional	4.2
Intermittent Stream 26	R4	108	Jurisdictional	4.4
Intermittent Stream 27	R4	295	Jurisdictional	4.4
Intermittent Stream 28	R4	144	Jurisdictional	4.5
Intermittent Stream 29	R4	186	Jurisdictional	4.9
Intermittent Stream 30	R4	489	Jurisdictional	4.12
Intermittent Stream 31	R4	2103	Jurisdictional	4.12, 4.15
Intermittent Stream 32	R4	1526	Jurisdictional	4.12, 4.15

**Frontier Solar Project**  
Wetland Delineation Report

<b>Feature</b>	<b>Cowardin Classification<sup>1</sup></b>	<b>Area (Linear Feet)<sup>2</sup></b>	<b>Potential Jurisdictional Status<sup>3</sup></b>	<b>Figure</b>
Intermittent Stream 33	R4	235	Jurisdictional	4.12
Intermittent Stream 34	R4	1613	Jurisdictional	4.13
Intermittent Stream 35	R4	1027	Jurisdictional	4.16
Intermittent Stream 36	R4	1496	Jurisdictional	4.16
Intermittent Stream 37	R4	1905	Jurisdictional	4.13
Intermittent Stream 38	R4	875	Jurisdictional	4.16
Intermittent Stream 39	R4	1348	Jurisdictional	4.16
Intermittent Stream 40	R4	187	Jurisdictional	4.9
Intermittent Stream 41	R4	46	Jurisdictional	4.9
Intermittent Stream 42	R4	24	Jurisdictional	4.5
Intermittent Stream 43	R4	382	Jurisdictional	4.7
Intermittent Stream 44	R4	704	Jurisdictional	4.5
Intermittent Stream 45	R4	354	Jurisdictional	4.5
Perennial Stream 1	R3	2850	Jurisdictional	4.1
Perennial Stream 2	R3	914	Jurisdictional	4.3
Perennial Stream 3	R3	8295	Jurisdictional	4.5, 4.7, 4.8
Perennial Stream 4	R3	173	Jurisdictional	4.3
Perennial Stream 5	R3	2624	Jurisdictional	4.1, 4.7
Perennial Stream 6	R3	1739	Jurisdictional	4.3, 4.5
Perennial Stream 7	R3	343	Jurisdictional	4.3
Perennial Stream 8	R3	1210	Jurisdictional	4.3
Perennial Stream 9	R3	1459	Jurisdictional	4.8
Perennial Stream 10	R3	14037	Jurisdictional	4.9, 4.12, 4.13, 4.16
Perennial Stream 11	R3	779	Jurisdictional	4.12
Perennial Stream 12	R3	2300	Jurisdictional	4.1, 4.16
Perennial Stream 13	R3	537	Jurisdictional	4.9
Upland Ditch 1	-	284	Non-Jurisdictional	4.7
Upland Ditch 2	-	24	Non-Jurisdictional	4.7
Upland Ditch 3	-	522	Non-Jurisdictional	4.3
Upland Ditch 4	-	44	Non-Jurisdictional	4.3
Upland Ditch 5	-	94	Non-Jurisdictional	4.5
Upland Ditch 6	-	603	Non-Jurisdictional	4.9
Upland Ditch 7	-	133	Non-Jurisdictional	4.8
Upland Ditch 8	-	127	Jurisdictional	4.12
Upland Ditch 9	-	522	Jurisdictional	4.12
Upland Ditch 10	-	423	Non-Jurisdictional	4.16
Upland Ditch 11	-	63	Jurisdictional	4.16
Upland Ditch 12	-	108	Non-Jurisdictional	4.10

Feature	Cowardin Classification <sup>1</sup>	Area (Linear Feet) <sup>2</sup>	Potential Jurisdictional Status <sup>3</sup>	Figure
Upland Ditch 13	-	252	Jurisdictional	4.7
Upland Ditch 14	-	460	Non-Jurisdictional	4.8

<sup>1</sup> Classifications are based on ERM's professional judgment of actual field conditions.

<sup>2</sup> Feature size within Project

<sup>3</sup> Jurisdictional determinations and boundaries when presented are preliminary and subject to final verification by the U.S. Army Corps of Engineers (USACE) and Kentucky Division of Water (DOW). Jurisdictional features are regulated by USACE and DOW. Non-Jurisdictional features are not regulated by USACE or DOW.

<sup>3</sup> Jurisdictional determinations and boundaries when presented are preliminary and subject to final verification by the U.S. Army Corps of Engineers (USACE) and Kentucky Division of Water (DOW). Jurisdictional features are regulated by USACE and DOW. Non-Jurisdictional features are not regulated by USACE or DOW.

## 6 CONCLUSION

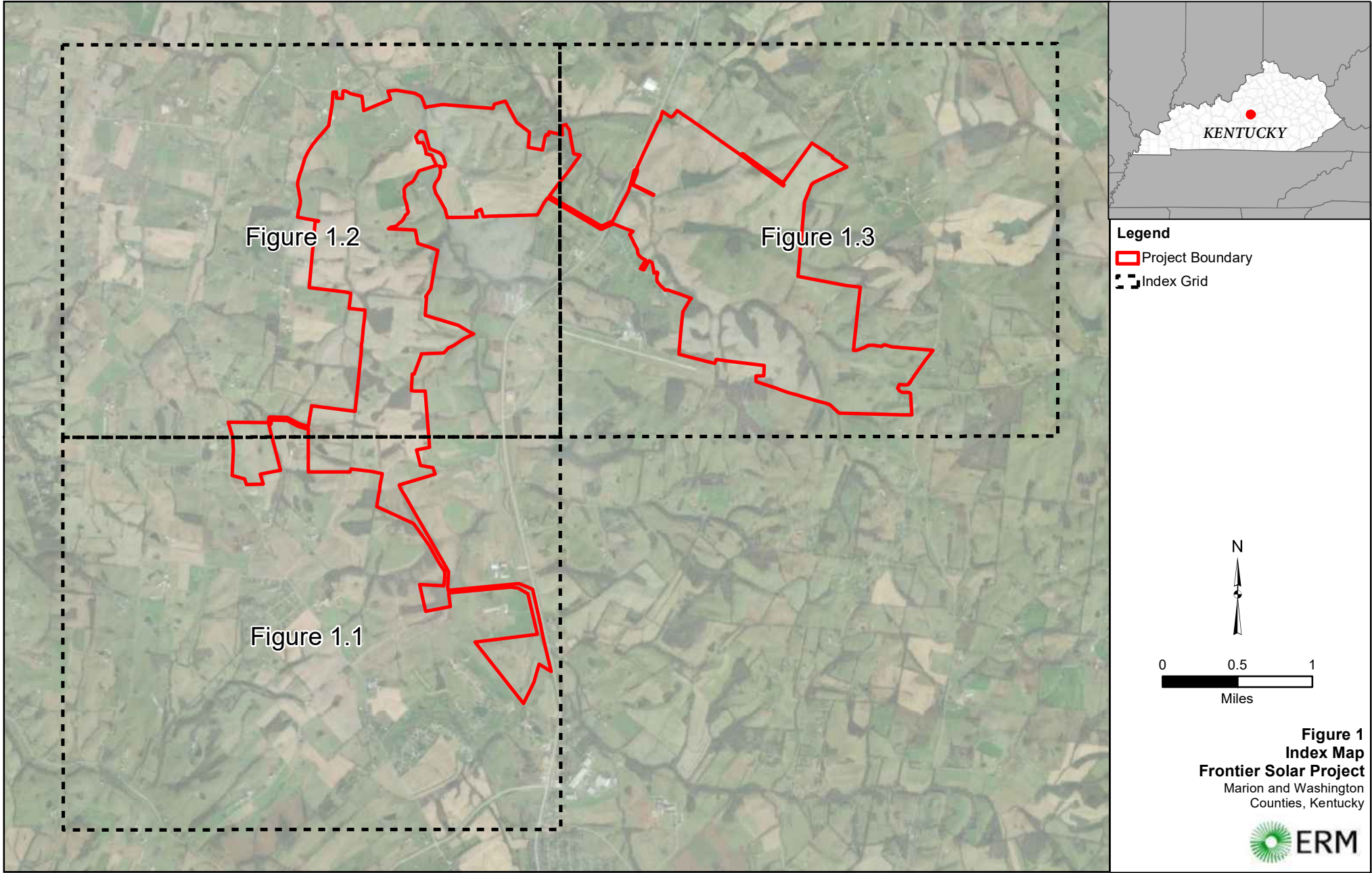
ERM observed 46 PEM wetlands, seven PFO wetlands, six PSS wetlands, 52 open water/PUB ponds, 84 ephemeral streams, 45 intermittent streams, 13 perennial streams, and 14 upland ditches throughout the Project. Approximately 6.11 acres of PEM wetland, 0.22 acres of PFO wetland, 0.56 acres of PSS wetland, and 42.38 acres of open water/PUB pond are potential jurisdictional features. Approximately 0.78 acres of PEM wetland, 0.49 acres of PFO wetland, 0.12 acres of PSS wetland, 23.02 acres of open water/PUB pond are potentially non-jurisdictional features. Approximately 37,260 linear feet of perennial streams, 33,616 linear feet of intermittent streams, 7,009 linear feet of ephemeral streams, and 964 linear feet of upland ditches are potential jurisdictional features. Approximately 24,332 linear feet of ephemeral streams and 2,695 linear feet of upland ditches are potentially non-jurisdictional features. Although these findings were based upon a survey utilizing USACE-approved protocols, the USACE (Louisville District) must make the official determinations on the presence or absence of jurisdictional WOTUS on the Project through the jurisdictional determination process.

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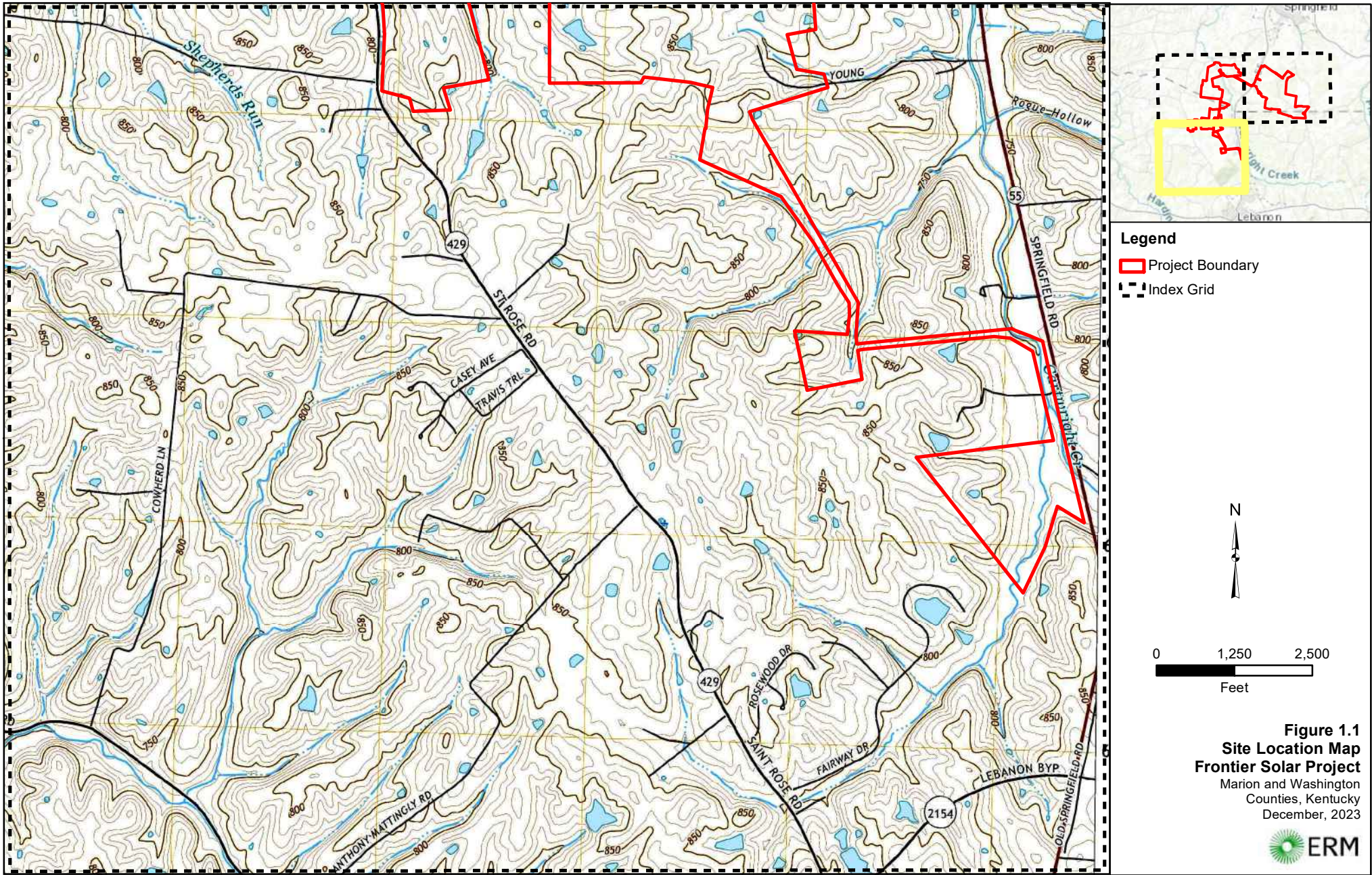
## Appendix A: Figures

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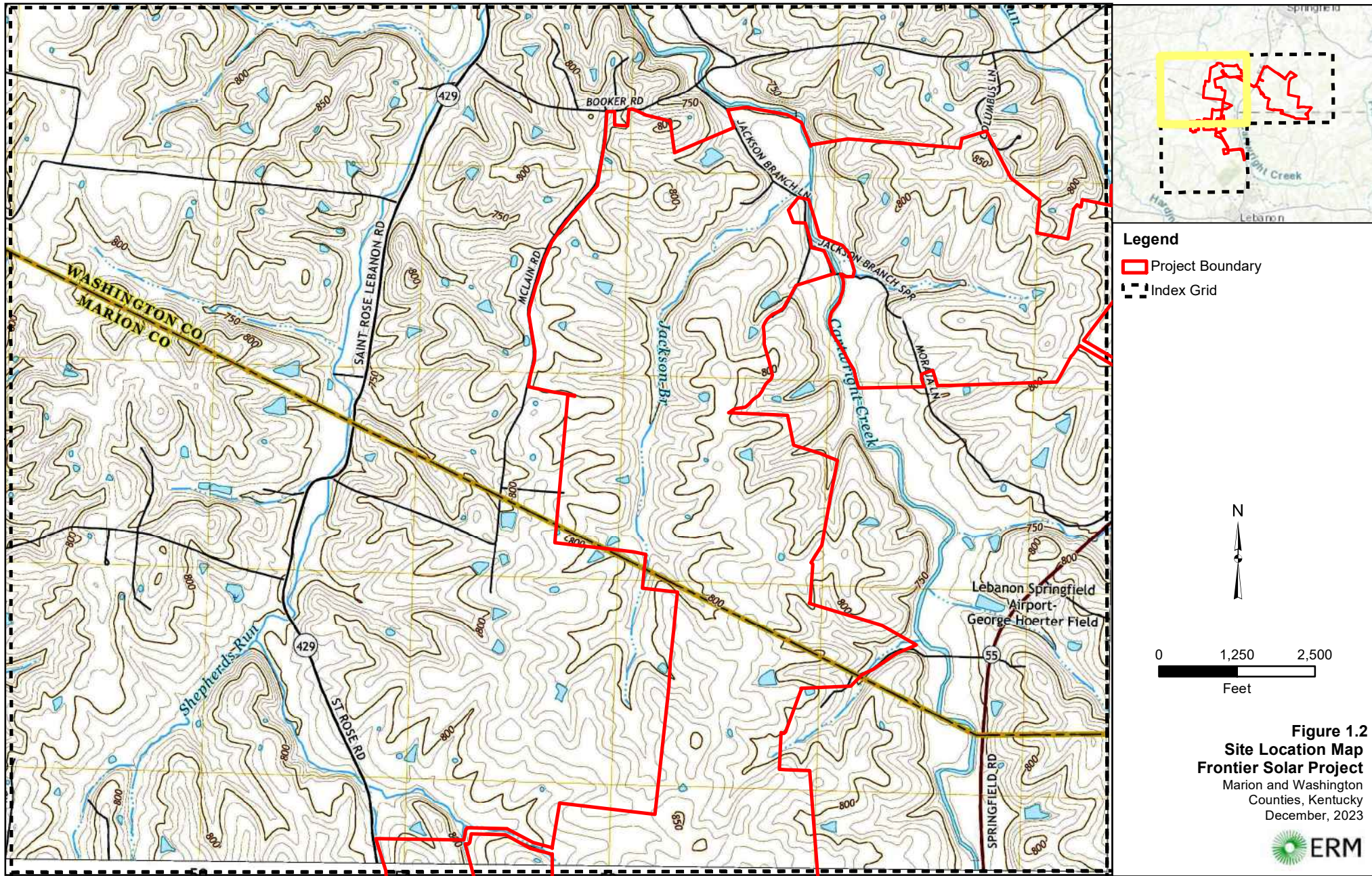
**Legend**  
▬ Project Boundary  
 ▬▬▬ Index Grid

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 Feet

**Figure 1.1**  
**Site Location Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky  
 December, 2023

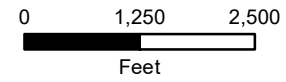


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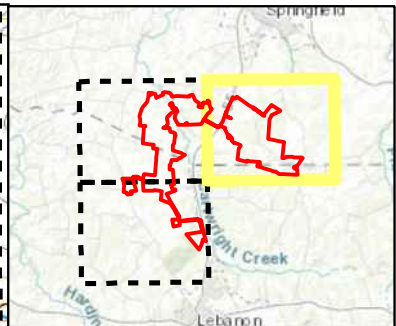
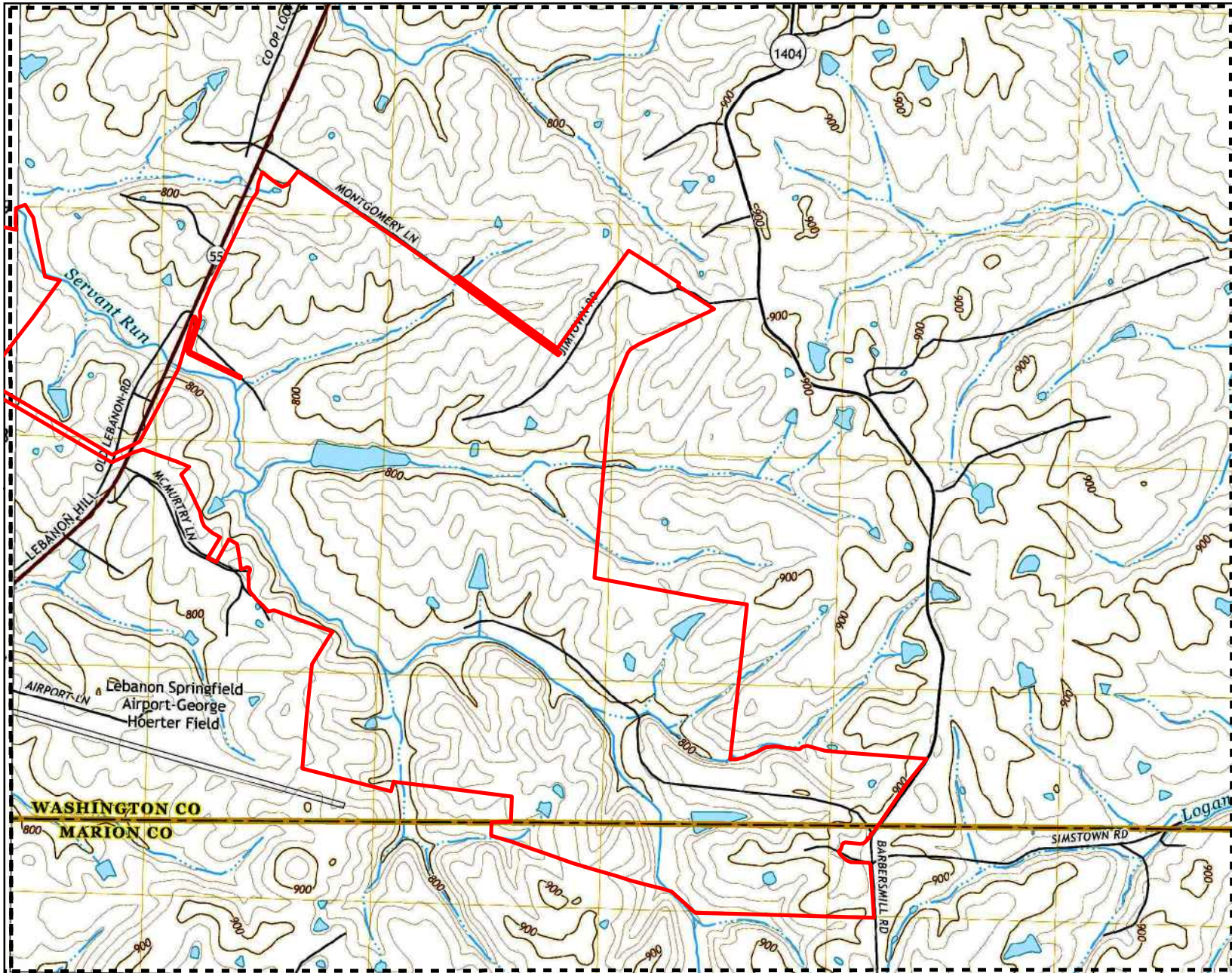
- Project Boundary
- Index Grid



**Figure 1.2**  
**Site Location Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky  
 December, 2023

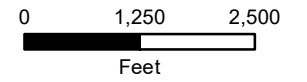


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**Legend**

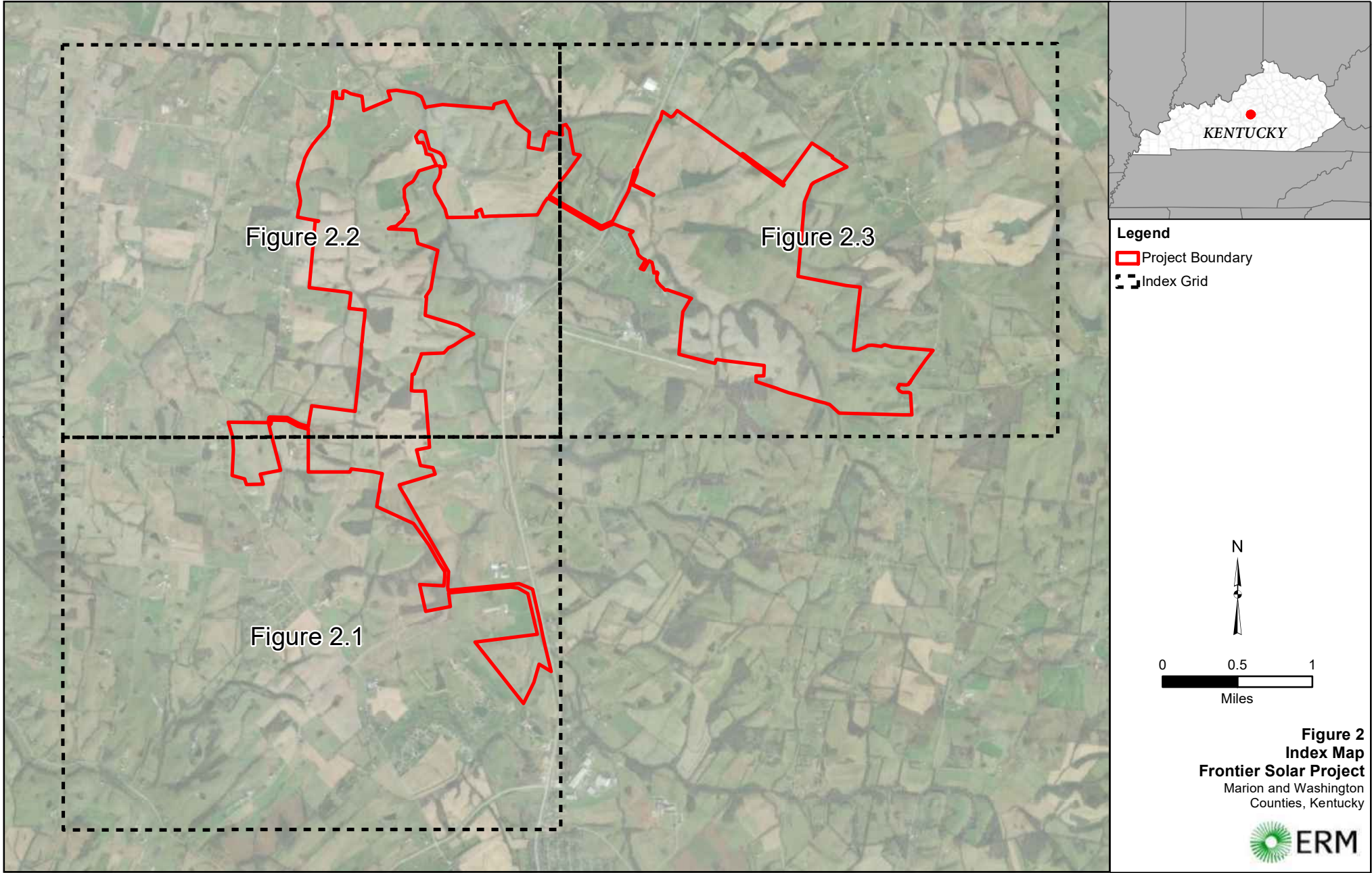
- Project Boundary
- Index Grid



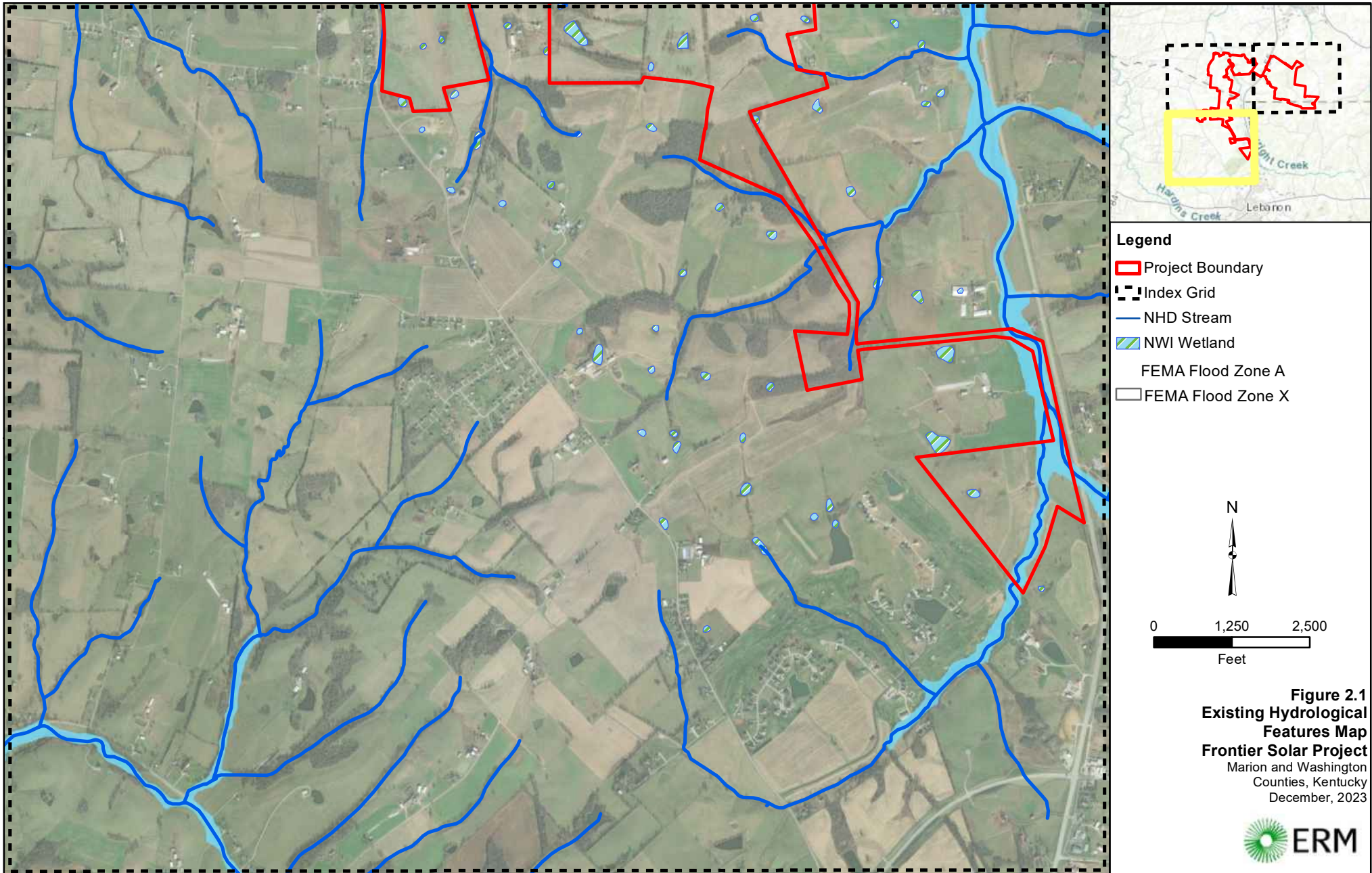
**Figure 1.3**  
**Site Location Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky  
 December, 2023



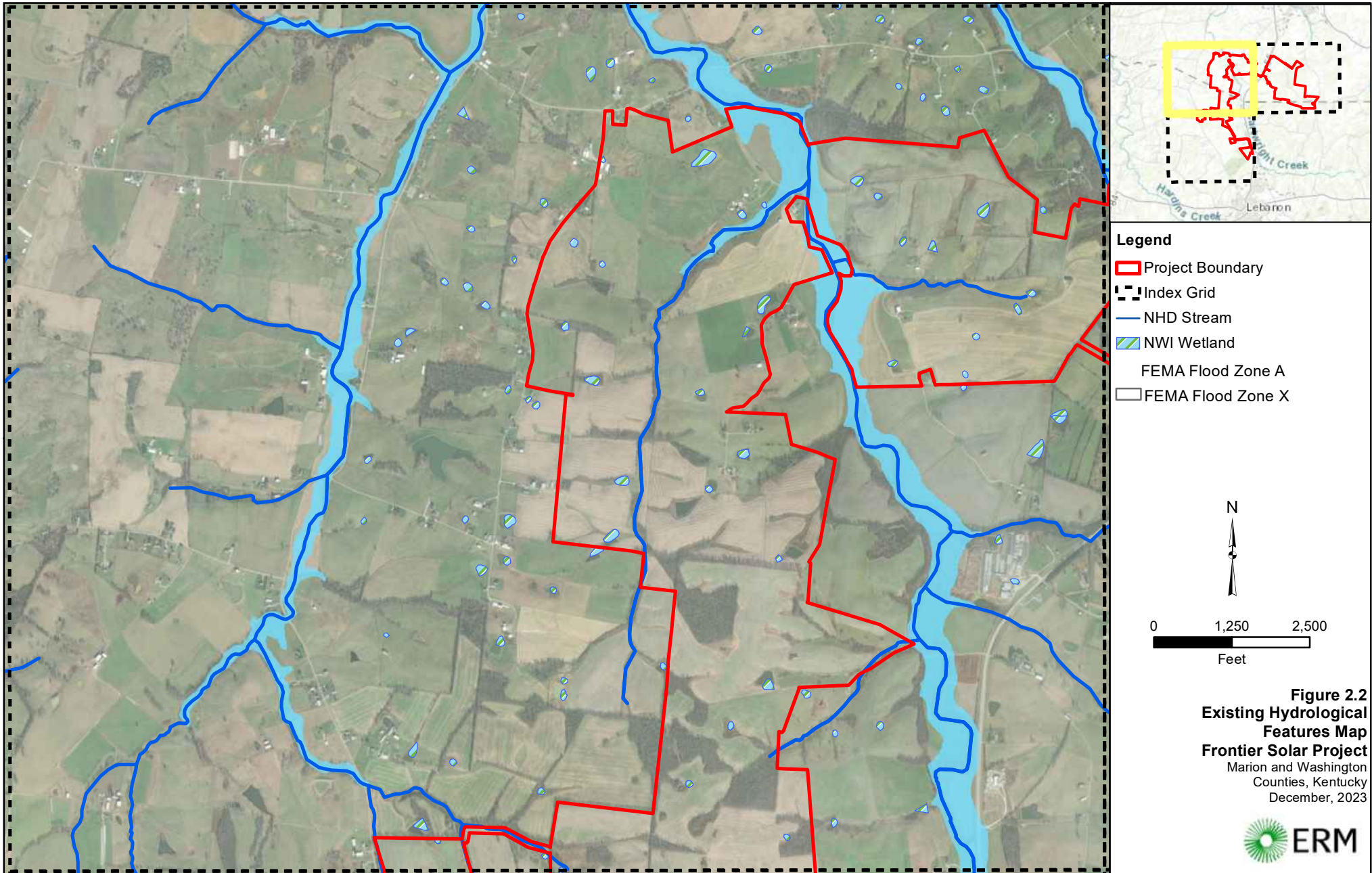
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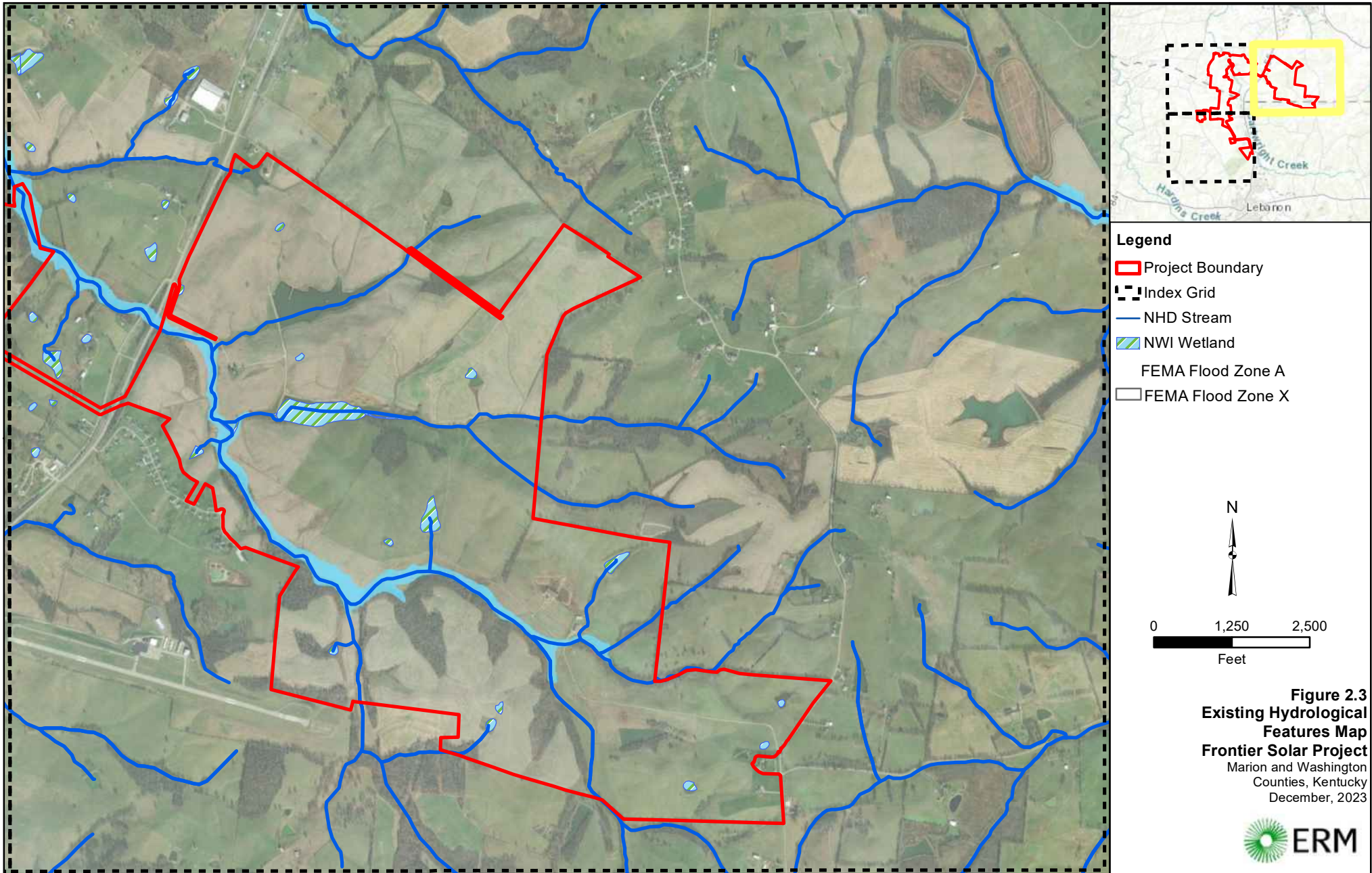
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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



**Figure 2.2**  
**Existing Hydrological**  
**Features Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky  
 December, 2023



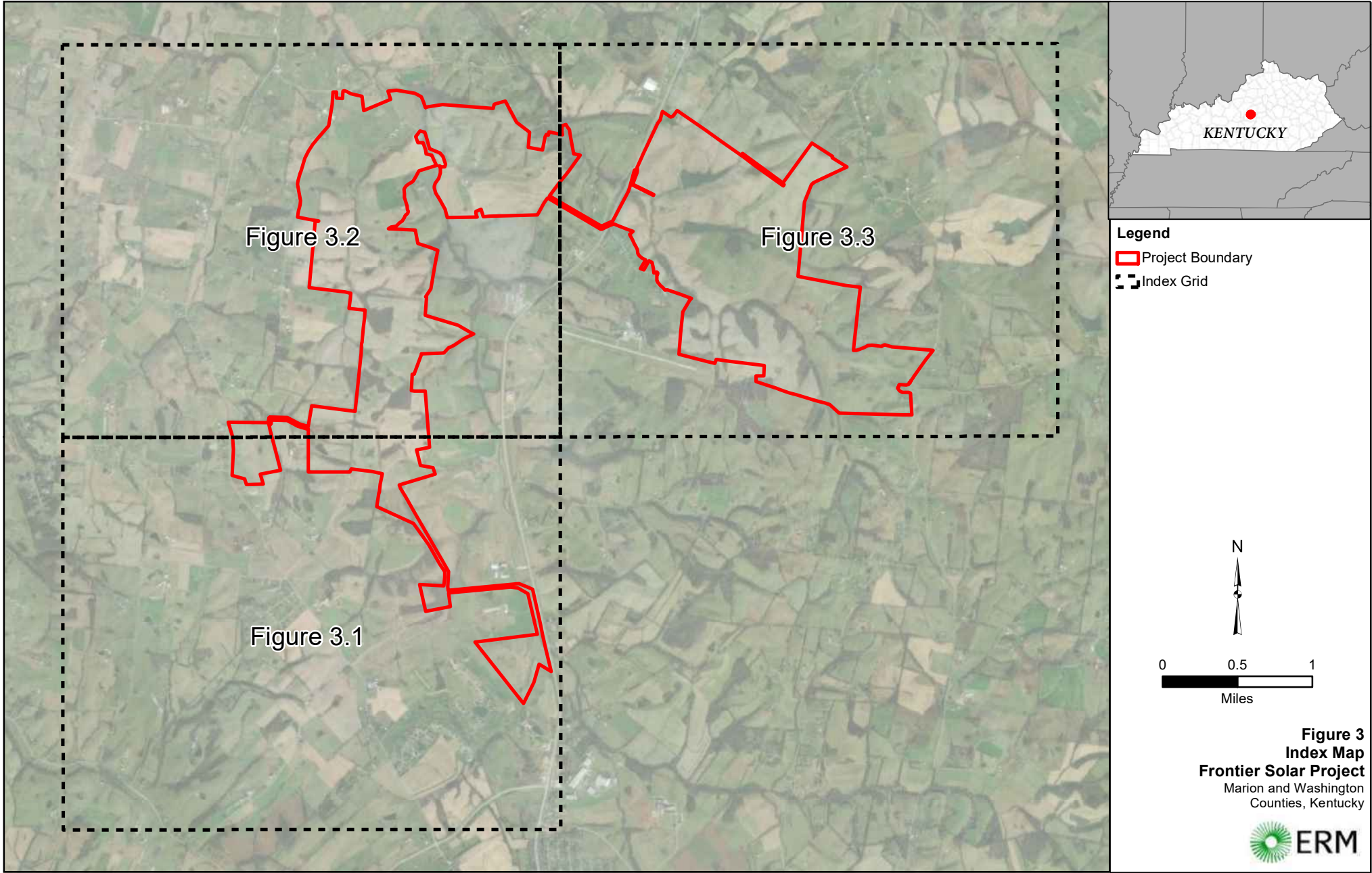
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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



**Figure 2.3**  
**Existing Hydrological**  
**Features Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky  
 December, 2023



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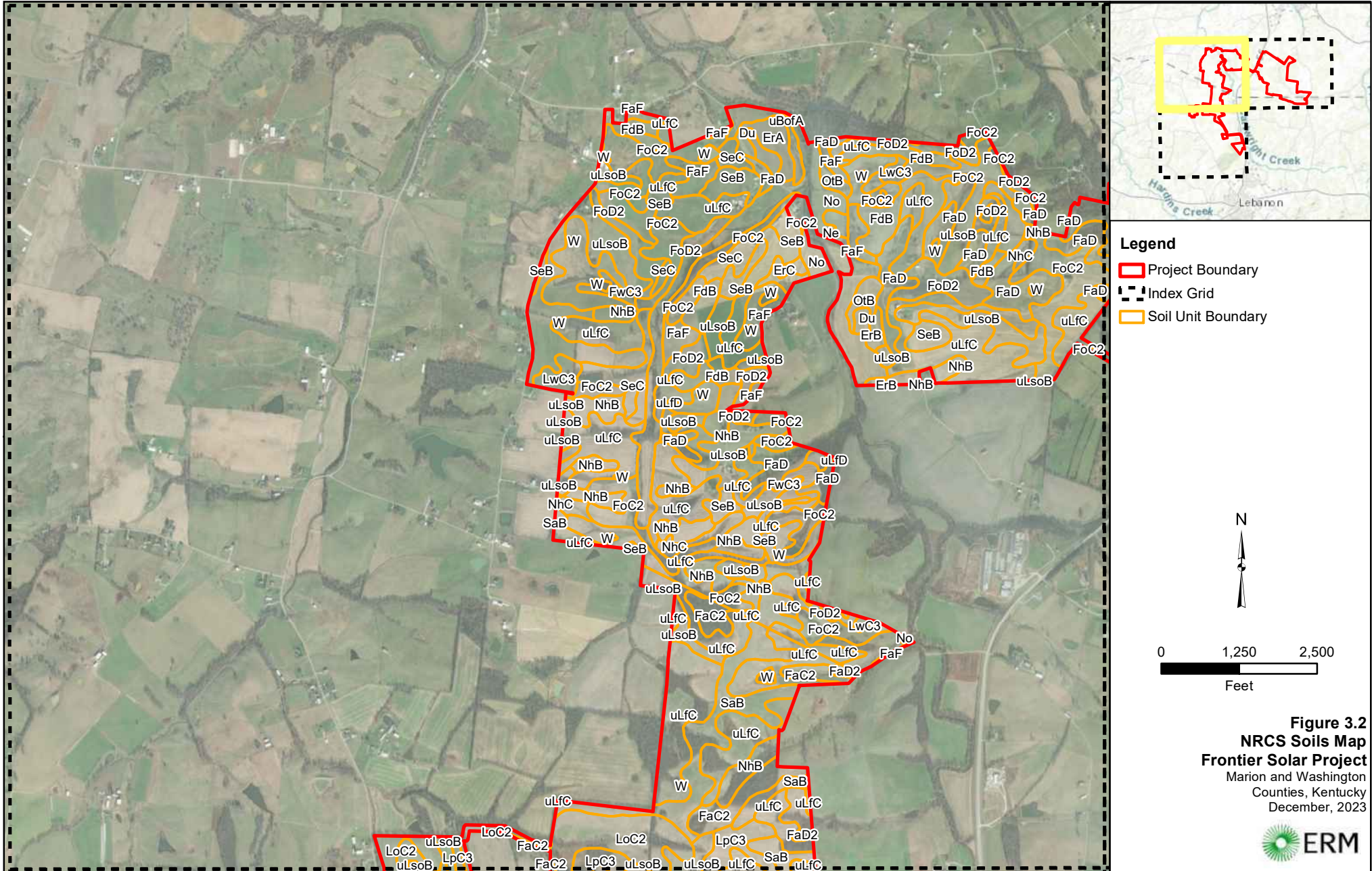


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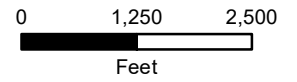




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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



- Legend**
- Project Boundary
  - Index Grid
  - Soil Unit Boundary

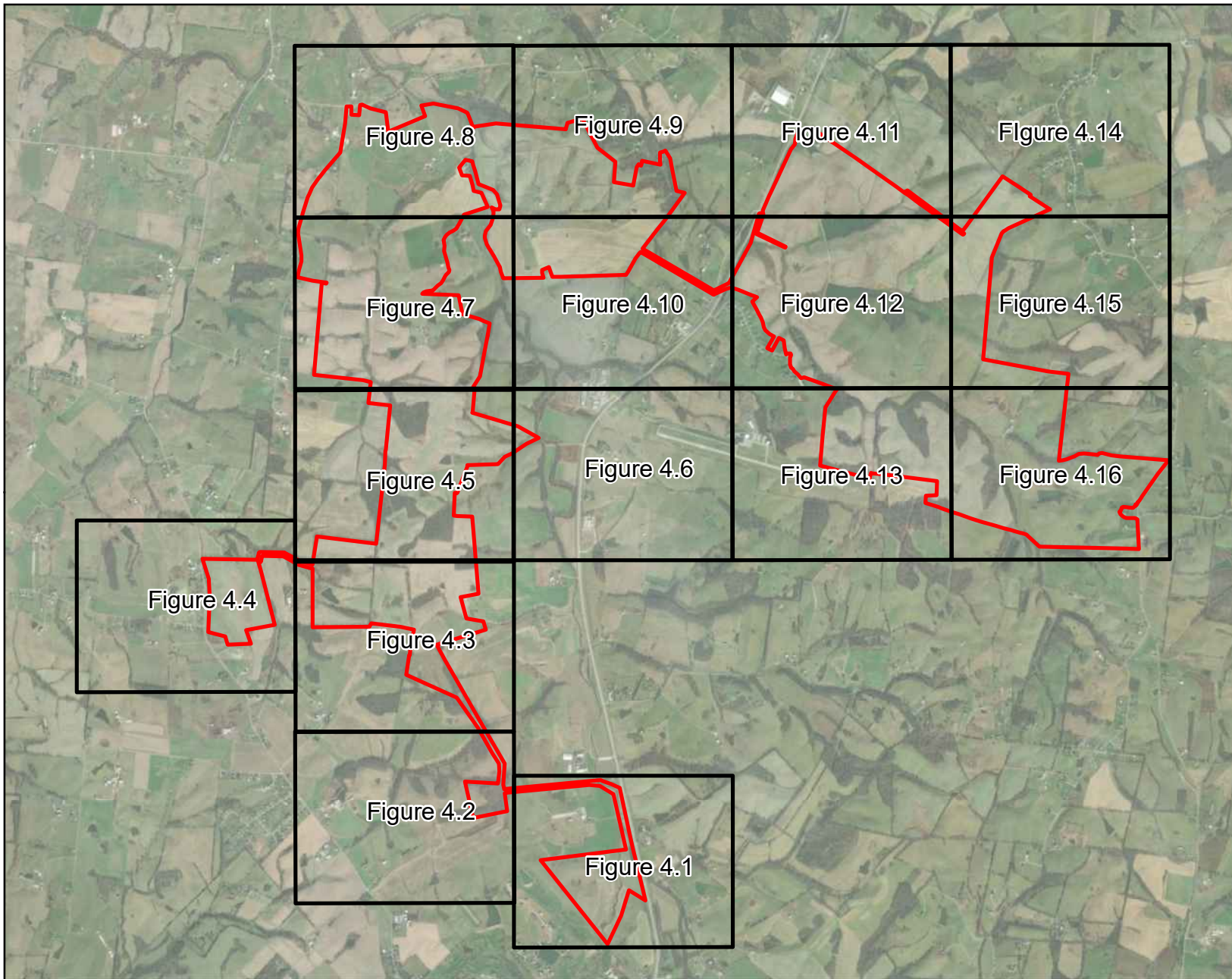


**Figure 3.2**  
**NRCS Soils Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky  
 December, 2023



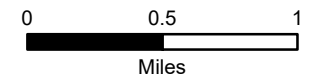
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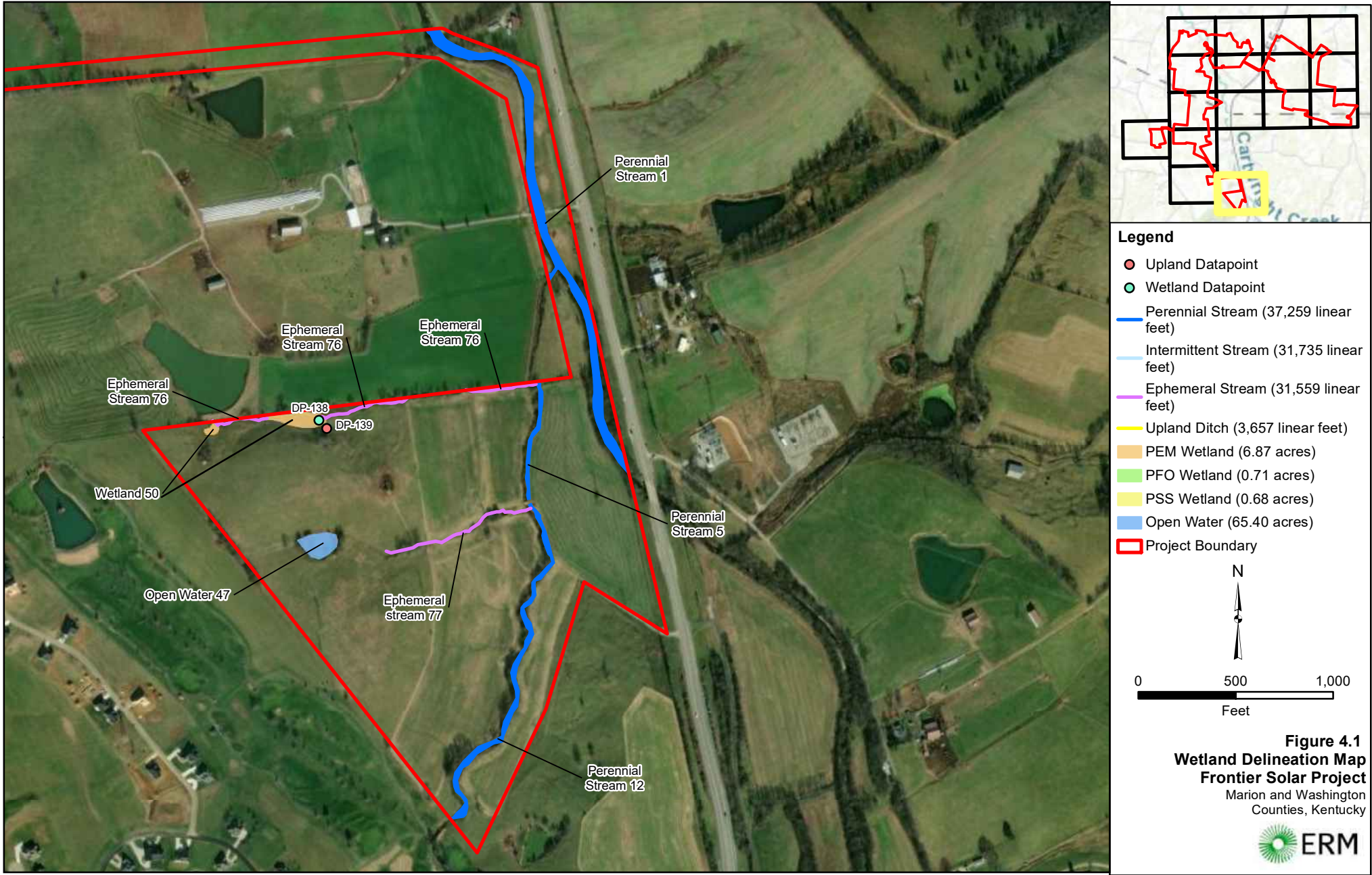
**Legend**

- Project Boundary
- Index Sheet



**Figure 4**  
**Wetland Delineation Index Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky





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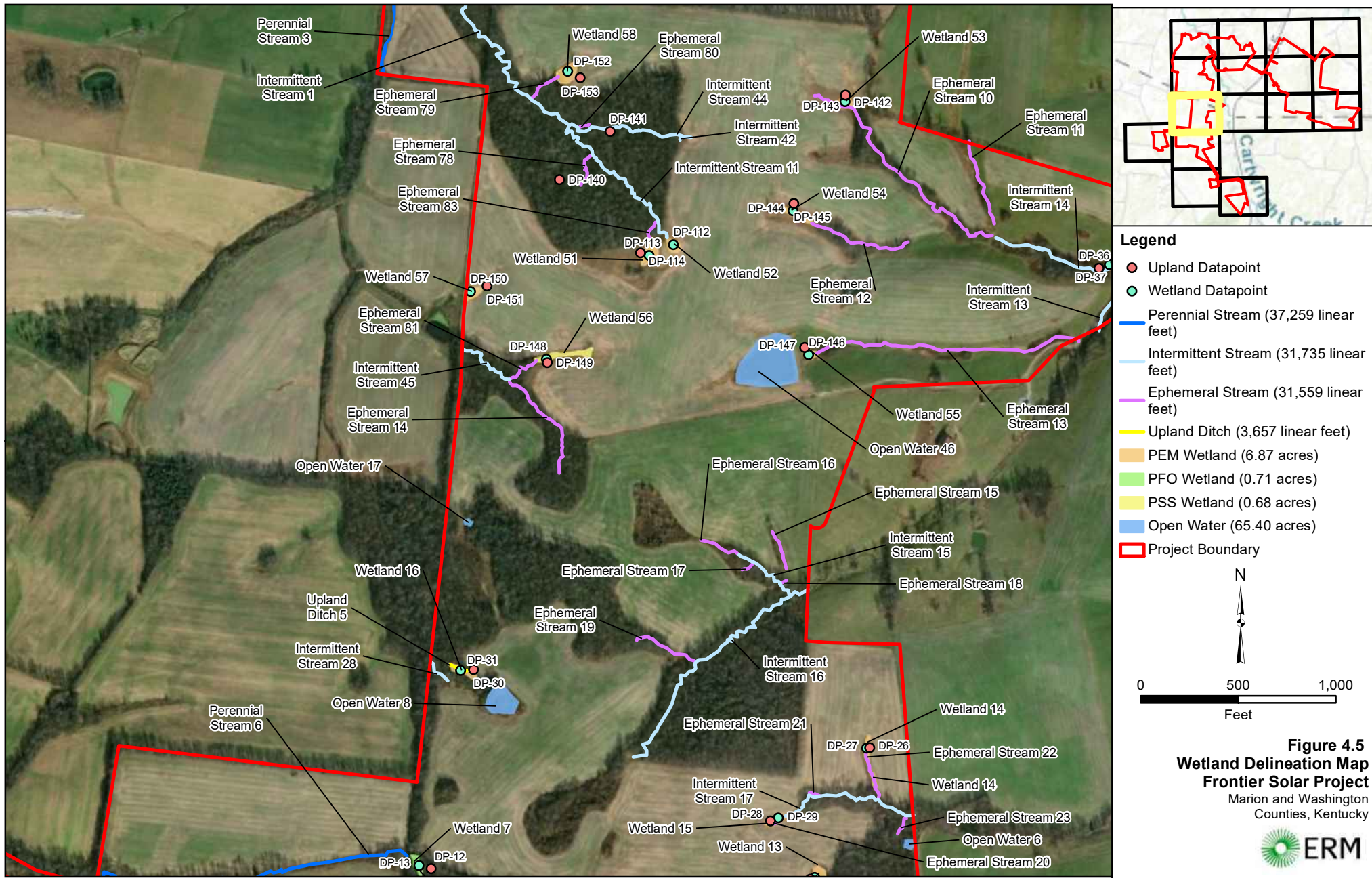


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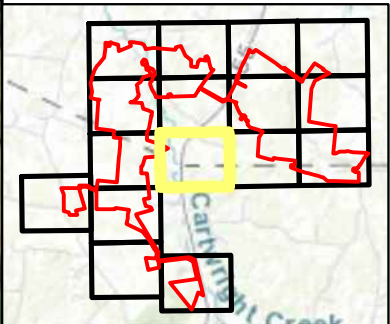
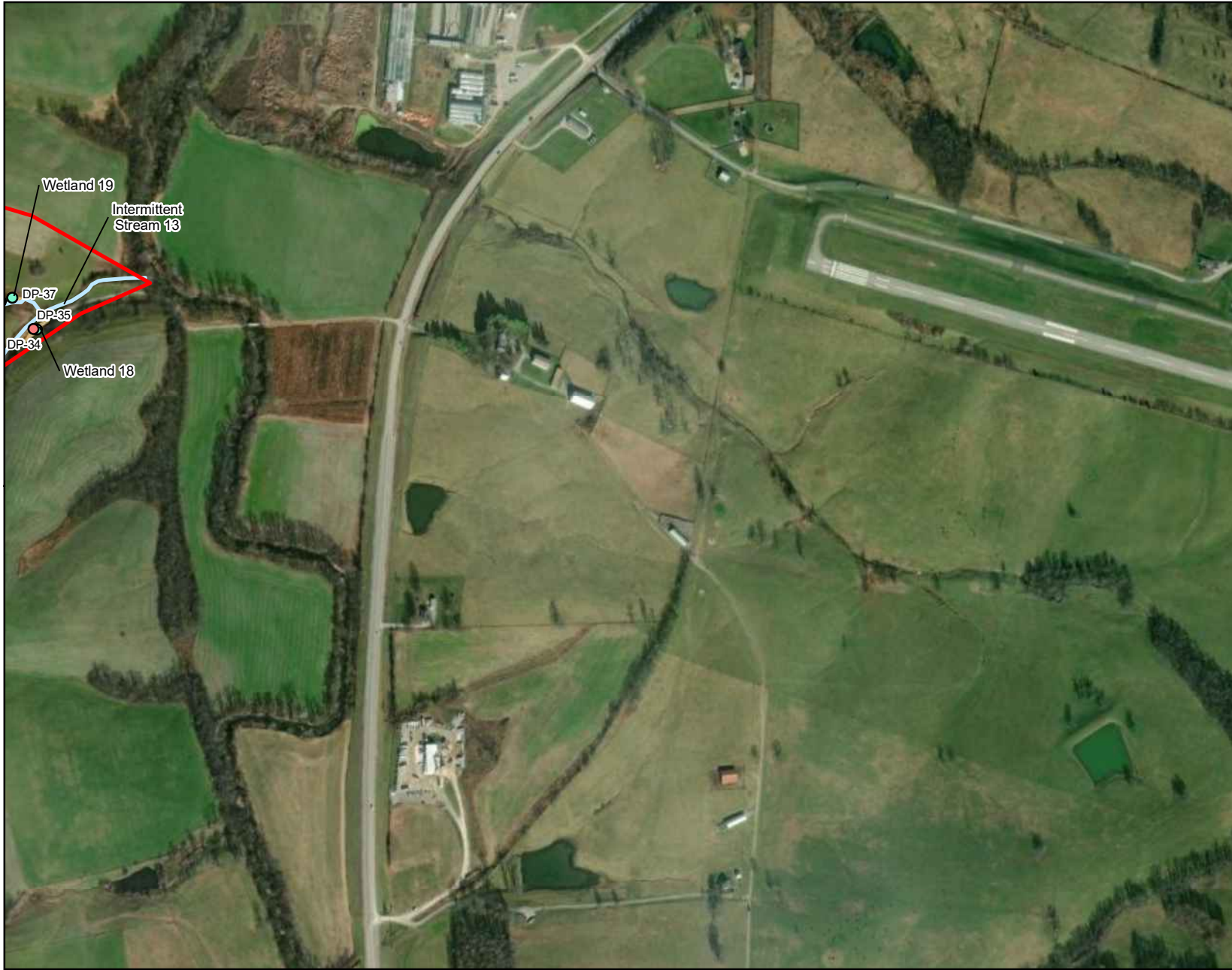


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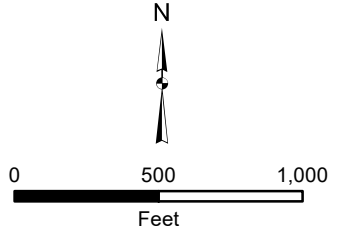


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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



**Legend**

- Upland Datapoint
- Wetland Datapoint
- Perennial Stream (37,259 linear feet)
- Intermittent Stream (31,735 linear feet)
- Ephemeral Stream (31,559 linear feet)
- Upland Ditch (3,657 linear feet)
- PEM Wetland (6.87 acres)
- PFO Wetland (0.71 acres)
- PSS Wetland (0.68 acres)
- Open Water (65.40 acres)
- ▭ Project Boundary



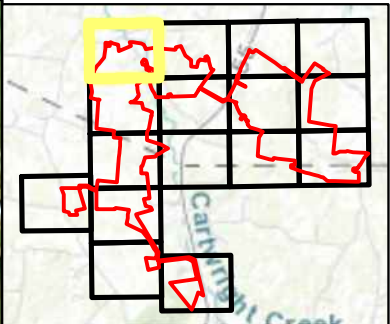
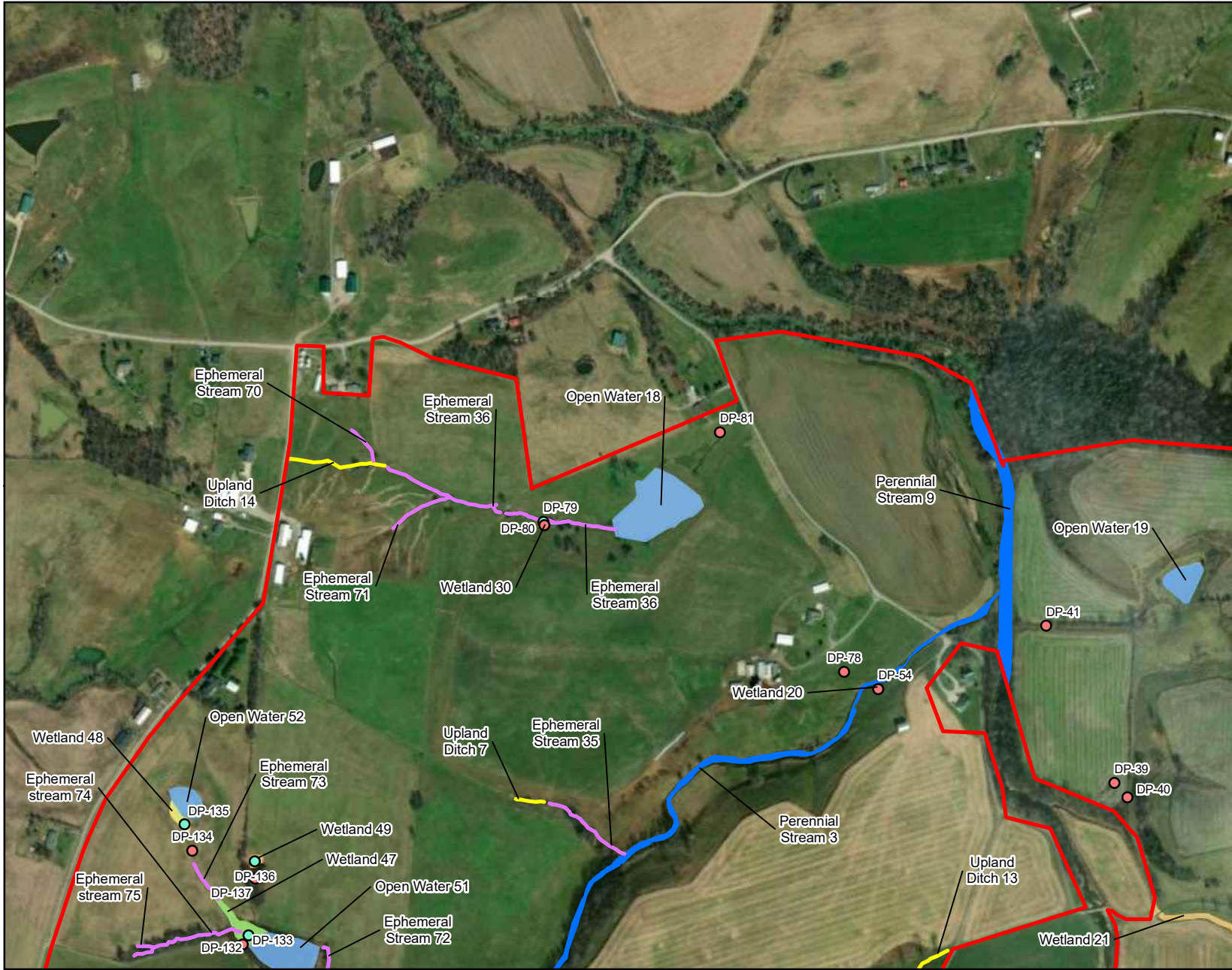
**Figure 4.6**  
**Wetland Delineation Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky



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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



**Legend**

- Upland Datapoint
- Wetland Datapoint
- Perennial Stream (37,259 linear feet)
- Intermittent Stream (31,735 linear feet)
- Ephemeral Stream (31,559 linear feet)
- Upland Ditch (3,657 linear feet)
- PEM Wetland (6.87 acres)
- PFO Wetland (0.71 acres)
- PSS Wetland (0.68 acres)
- Open Water (65.40 acres)
- ▭ Project Boundary

N

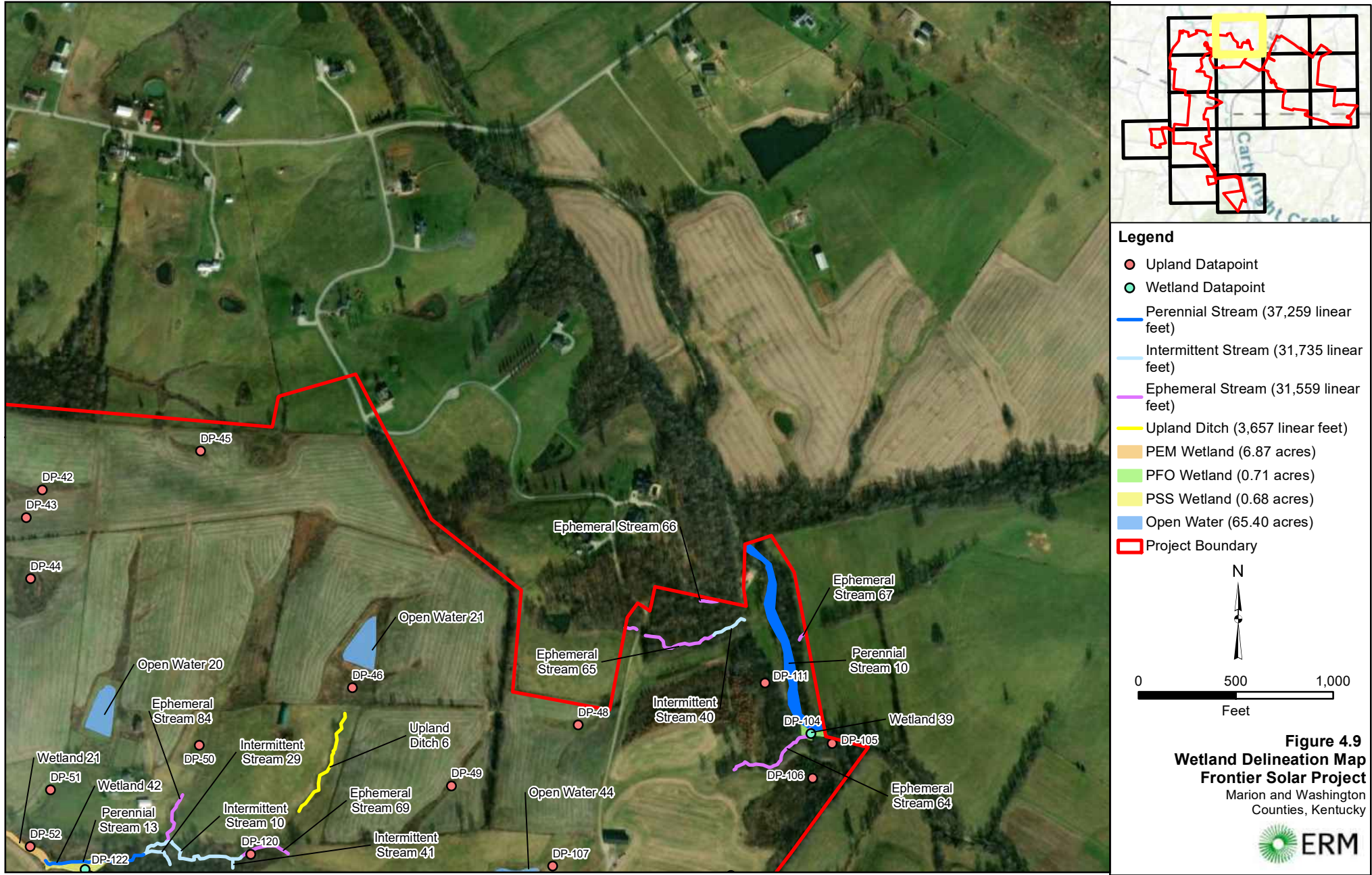
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Feet

**Figure 4.8**  
**Wetland Delineation Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky



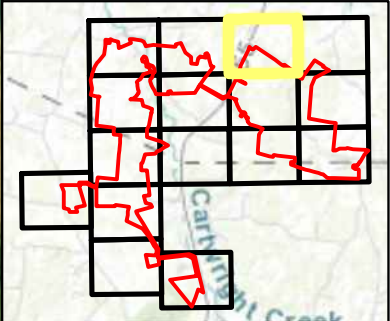
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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



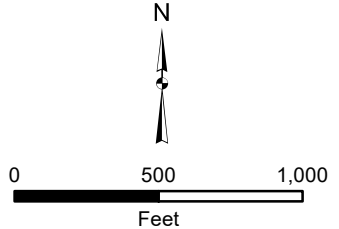
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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



- Legend**
- Upland Datapoint
  - Wetland Datapoint
  - Perennial Stream (37,259 linear feet)
  - Intermittent Stream (31,735 linear feet)
  - Ephemeral Stream (31,559 linear feet)
  - Upland Ditch (3,657 linear feet)
  - PEM Wetland (6.87 acres)
  - PFO Wetland (0.71 acres)
  - PSS Wetland (0.68 acres)
  - Open Water (65.40 acres)
  - Project Boundary



**Figure 4.11**  
**Wetland Delineation Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky

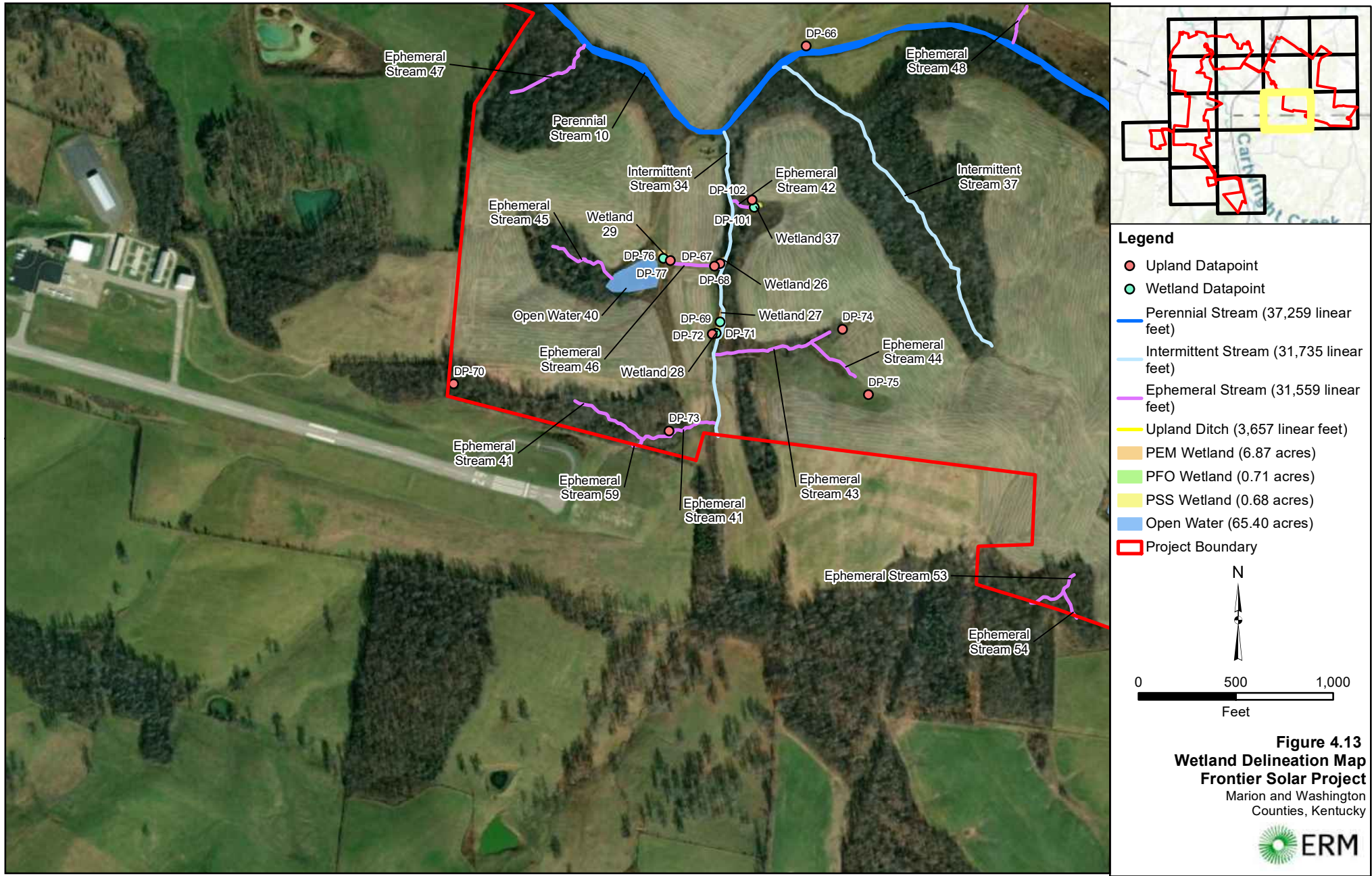


Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community  
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet

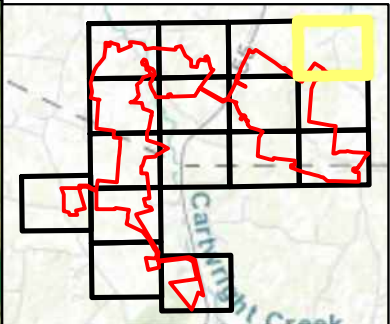


Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community  
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet

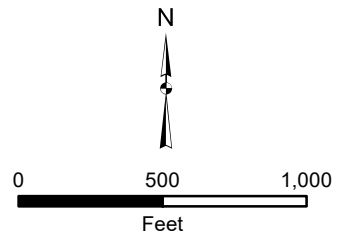




Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community  
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



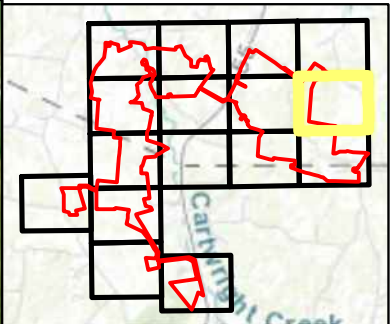
- Legend**
- Upland Datapoint
  - Wetland Datapoint
  - Perennial Stream (37,259 linear feet)
  - Intermittent Stream (31,735 linear feet)
  - Ephemeral Stream (31,559 linear feet)
  - Upland Ditch (3,657 linear feet)
  - PEM Wetland (6.87 acres)
  - PFO Wetland (0.71 acres)
  - PSS Wetland (0.68 acres)
  - Open Water (65.40 acres)
  - Project Boundary



**Figure 4.14**  
**Wetland Delineation Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community  
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



**Legend**

- Upland Datapoint
- Wetland Datapoint
- Perennial Stream (37,259 linear feet)
- Intermittent Stream (31,735 linear feet)
- Ephemeral Stream (31,559 linear feet)
- Upland Ditch (3,657 linear feet)
- PEM Wetland (6.87 acres)
- PFO Wetland (0.71 acres)
- PSS Wetland (0.68 acres)
- Open Water (65.40 acres)
- ▭ Project Boundary

N

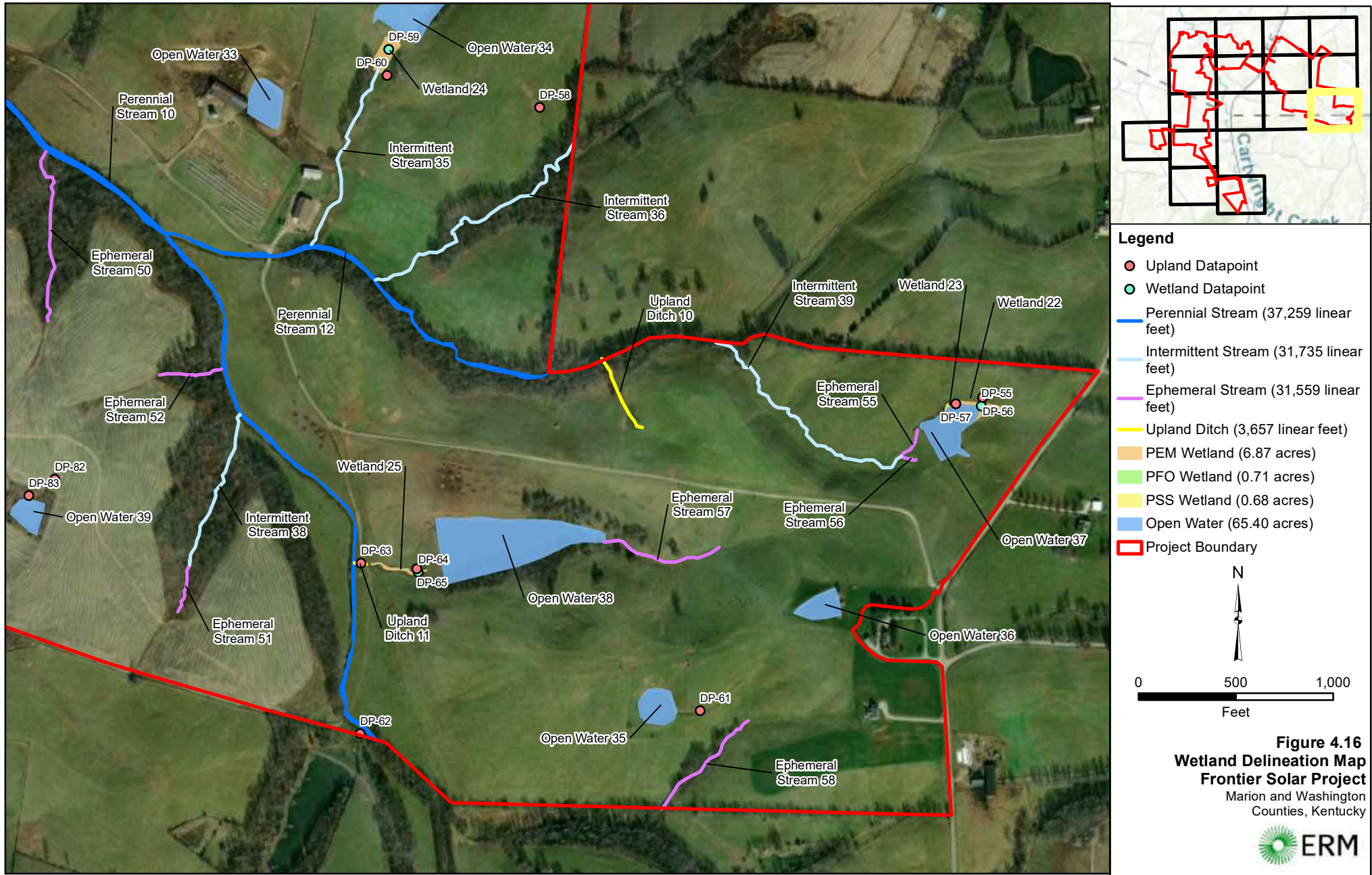
0      500      1,000

Feet

**Figure 4.15**  
**Wetland Delineation Map**  
**Frontier Solar Project**  
 Marion and Washington  
 Counties, Kentucky



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community  
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community  
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; NAD 1983 StatePlane Kentucky North FIPS 1601 Feet

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## **Appendix B: Photographic Log**

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# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 001	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 1 (PEM)  <b>Location:</b> Northern boundary of southwest parcel, abutting Intermittent Stream 26.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 002	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-01  <b>Location:</b> South of Wetland 1, within southwest parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 003	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Wetland 2 (PFO)  <b>Location:</b> Northern section of project boundary, abutting Perennial Stream 5.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 004	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-03  <b>Location:</b> Southeast of wetland 2, on eastern edge of parcel boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 005	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 3 (PEM)  <b>Location:</b> West of Open Water 12, within northern most parcel boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 006	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-05  <b>Location:</b> West of Wetland 3, within northern most parcel boundary.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 007	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 4 (PEM)  <b>Location:</b> Southern region of northern parcel boundary, next to Intermittent Stream 5.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 008	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-07  <b>Location:</b> North of Wetland 4 in southern region of northern parcel boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 009	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Wetland 5 (PEM)  <b>Location:</b> Abutting Open Water 7, in eastern region of central parcel boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 010	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-09  <b>Location:</b> East of Wetland 5, in eastern region of central parcel boundary.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 011	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 6 (PEM)  <b>Location:</b> South of Open Water 7 in eastern region of central parcel boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 012	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-09  <b>Location:</b> East of Wetland 5, in eastern region of central parcel boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 013	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 7 (PFO)  <b>Location:</b> Isolated wetland, central region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 014	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-12  <b>Location:</b> East of Wetland 7, within central region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 015	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 8 (PFO)  <b>Location:</b> Along Intermittent Stream 24, southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 016	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-14  <b>Location:</b> West of Wetland 8, southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 017	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 9 (PEM)  <b>Location:</b> North of Open Water 1, in southern region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 018	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-16  <b>Location:</b> Southwest of Wetland 9, in southern region of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 019	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 10 (PEM)  <b>Location:</b> Abutting Open Water 2, in southwestern region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 020	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-18  <b>Location:</b> South of Wetland 10, in southwestern region of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 021	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 11 (PEM)  <b>Location:</b> West of Perennial Stream 3, in western region of northern parcel boundary.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 022	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-20  <b>Location:</b> South of Wetland 11, in western region of northern parcel boundary.			






# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 023	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 12 (PFO)  <b>Location:</b> Abutting Intermittent Stream 8 in western portion of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 024	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-22  <b>Location:</b> North of Wetland 12 in western portion of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 025	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 13 (PEM)  <b>Location:</b> Isolated wetland south of Intermittent Stream 17 in eastern portion of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 026	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-24  <b>Location:</b> West of Wetland 13 in eastern portion of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 027	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 14 (PEM)  <b>Location:</b> North of Ephemeral Stream 22, in eastern portion of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 028	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-26  <b>Location:</b> East of Wetland 14 in eastern portion of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 029	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 15 (PEM)  <b>Location:</b> West of Intermittent Stream 17, in eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 030	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-28  <b>Location:</b> Northwest of Wetland 15 in eastern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 030	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 16 (PFO)  <b>Location:</b> West of Open Water 8, in northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 031	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-30  <b>Location:</b> East of Wetland 16, in northern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 032	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 17 (PEM)  <b>Location:</b> Abutting Perennial Stream 8, in eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 033	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-32  <b>Location:</b> South of Wetland 17, in eastern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 034	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 18 (PEM)  <b>Location:</b> West of Intermittent Stream 14, in northeastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 035	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-34  <b>Location:</b> West of Wetland 18, in northeastern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 036	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 19 (PEM)  <b>Location:</b> Abutting Intermittent Stream 14, in eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 037	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-36  <b>Location:</b> West of Wetland 19, in eastern region of Project Boundary.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 038	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 1  <b>Location:</b> South of Wetland 9, in southern region of northern parcel boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 039	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 2  <b>Location:</b> East of Wetland 10, in western region of northern parcel boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 040	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 3  <b>Location:</b> Northern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 041	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 4  <b>Location:</b> Southwest region of northern parcel boundary.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 042	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 5  <b>Location:</b> Eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 043	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 6  <b>Location:</b> Eastern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 044	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 7  <b>Location:</b> West of Wetland 5, in southwestern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 045	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 8  <b>Location:</b> Southwest of Wetland 16, in northern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 046	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 9  <b>Location:</b> North of Perennial Stream 8, in eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 047	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 10  <b>Location:</b> Northeastern region of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 048	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 12  <b>Location:</b> Southern region of northern parcel boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 049	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 13  <b>Location:</b> East of Intermittent Stream 3, in western region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 050	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 15  <b>Location:</b> Western region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 051	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Open Water 16  <b>Location:</b> Southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 052	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Open Water 17  <b>Location:</b> Northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 053	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Perennial Stream 1, upstream  <b>Location:</b> Southwestern most property parcel, west of Springfield Highway.			





# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 054	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Perennial Stream 1, downstream  <b>Location:</b> Southwestern most property parcel, west of Springfield Highway.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 055	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Perennial Stream 2, upstream  <b>Location:</b> South of Intermittent Stream 22 in southern region of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 056	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Perennial Stream 2, downstream  <b>Location:</b> South of Intermittent Stream 22 in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 057	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Perennial Stream 3, upstream  <b>Location:</b> Central region of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 058	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Perennial Stream 3, downstream  <b>Location:</b> Central region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 059	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Perennial Stream 4, upstream  <b>Location:</b> Southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 060	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Perennial Stream 4, downstream  <b>Location:</b> Southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 061	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Perennial Stream 5, upstream  <b>Location:</b> South of Perennial Stream 3			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 062	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Perennial Stream 5 downstream  <b>Location:</b> South of Perennial Stream 3			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 063	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Perennial Stream 6, upstream  <b>Location:</b> West of Wetland 7, in western region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 064	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Perennial Stream 6 downstream  <b>Location:</b> West of Wetland 7, in western region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 065	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Perennial Stream 7, upstream  <b>Location:</b> Eastern region of Project Boundary,			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 066	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Perennial Stream 7, downstream  <b>Location:</b> Eastern region of Project Boundary,			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 067	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 1, upstream  <b>Location:</b> South of Perennial Stream 3			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 068	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 1, downstream  <b>Location:</b> South of Perennial Stream 3			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 069	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Intermittent Stream 2, upstream  <b>Location:</b> West of Wetland 4, in southern region of northern property parcel.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 070	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Intermittent Stream 2, downstream  <b>Location:</b> West of Wetland 4, in southern region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 071	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 3, upstream  <b>Location:</b> Southern region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 072	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 3, downstream  <b>Location:</b> Southern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 073	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 4, upstream  <b>Location:</b> Western region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 074	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 4, downstream  <b>Location:</b> Western region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 075	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 6, upstream  <b>Location:</b> West of Perennial Stream 3 in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 076	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 6, downstream  <b>Location:</b> West of Perennial Stream 3 in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 077	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 7, upstream  <b>Location:</b> West of Perennial Stream 3 in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 078	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 7, downstream  <b>Location:</b> West of Perennial Stream 3 in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 079	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 8, upstream  <b>Location:</b> East of Perennial Stream 3 in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 080	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 8, downstream  <b>Location:</b> East of Perennial Stream 3 in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 081	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 9, upstream  <b>Location:</b> Abutting Wetland 12, in western region of northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 082	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 9, downstream  <b>Location:</b> Abutting Wetland 12, in western region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 083	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 12, upstream  <b>Location:</b> Eastern region of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 084	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 12, downstream  <b>Location:</b> Eastern region of northern property parcel.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 085	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Intermittent Stream 13, upstream  <b>Location:</b> Western region of Project Boundary.			






# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 086	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Intermittent Stream 13, downstream  <b>Location:</b> Western region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 087	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 14, upstream  <b>Location:</b> Abutting Wetland 19, in western region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 088	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 14, downstream  <b>Location:</b> Abutting Wetland 19, in western region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 089	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 16, upstream  <b>Location:</b> Northern region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 090	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 16, downstream  <b>Location:</b> Northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 091	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 17, upstream  <b>Location:</b> East of Wetland 15, in eastern region of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 092	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 17, downstream  <b>Location:</b> East of Wetland 15, in eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 093	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Intermittent Stream 18, upstream  <b>Location:</b> North of Perennial Stream 8, within central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 095	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Intermittent Stream 18, downstream  <b>Location:</b> North of Perennial Stream 8, within central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 095	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 19, upstream  <b>Location:</b> Abutting Wetland 17, in eastern region of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 096	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 19, downstream  <b>Location:</b> Abutting Wetland 17, in eastern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 097	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 20, upstream  <b>Location:</b> Abutting Open Water 14, southern region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 098	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 20, downstream  <b>Location:</b> Abutting Open Water 14, southern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 099	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 22, upstream  <b>Location:</b> North of Perennial Stream 2, in southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 100	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 22, downstream  <b>Location:</b> North of Perennial Stream 2, in southern region of Project Boundary.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 101	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 23, upstream  <b>Location:</b> Abutting Wetland 8, in southern region of Project Boundary.			





# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 102	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 23, downstream  <b>Location:</b> Abutting Wetland 8, in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 103	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 24, upstream  <b>Location:</b> Abutting Wetland 8 in southern region of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 104	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 24, downstream  <b>Location:</b> Abutting Wetland 8 in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 105	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 25, upstream  <b>Location:</b> North of Intermittent Stream 23, in southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 106	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 25, downstream  <b>Location:</b> North of Intermittent Stream 23, in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 107	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Intermittent Stream 26, upstream  <b>Location:</b> Northern region of southern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 108	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Intermittent Stream 26, downstream  <b>Location:</b> Northern region of southern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 109	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Intermittent Stream 27, upstream  <b>Location:</b> Southern region of southern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 110	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Intermittent Stream 27, downstream  <b>Location:</b> Southern region of southern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 111	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Intermittent Stream 28, upstream  <b>Location:</b> West of Wetland 16, in northern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 112	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Intermittent Stream 28, downstream  <b>Location:</b> West of Wetland 16, in northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 113	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Ephemeral Stream 1, upstream  <b>Location:</b> North of Wetland 9 in southern region of northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 114	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Ephemeral Stream 1, downstream  <b>Location:</b> North of Wetland 9 in southern region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 115	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 2, upstream  <b>Location:</b> Southwest corner of northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 116	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 2, downstream  <b>Location:</b> Southwest corner of northern property parcel.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 117	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 3, upstream  <b>Location:</b> West of Wetland 9, in southern region of northern property parcel.			






# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 118	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 3, downstream  <b>Location:</b> West of Wetland 9, in southern region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 119	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 4, upstream  <b>Location:</b> West of Perennial Stream 3, in northern portion of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 120	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 4, downstream  <b>Location:</b> West of Perennial Stream 3, in northern portion of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 121	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 5, upstream  <b>Location:</b> East of Wetland 12, in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 122	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 5, downstream  <b>Location:</b> East of Wetland 12, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 123	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 6, upstream  <b>Location:</b> Along northern boundary of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 124	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 6, downstream  <b>Location:</b> Along northern boundary of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 125	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 7, upstream  <b>Location:</b> East of Wetland 11, in northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 126	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 7, downstream  <b>Location:</b> East of Wetland 11, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 127	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 8, upstream  <b>Location:</b> East of Wetland 12, in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 128	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 8, downstream  <b>Location:</b> East of Wetland 12, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 129	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 9, upstream  <b>Location:</b> West of Ephemeral Stream 8, in eastern region of northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 130	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 9, downstream  <b>Location:</b> West of Ephemeral Stream 8, in eastern region of northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 131	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> southeast			
<b>Description:</b> Ephemeral Stream 10, upstream  <b>Location:</b> West of Intermittent Stream 14, in eastern most property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 132	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Ephemeral Stream 10, downstream  <b>Location:</b> West of Intermittent Stream 14, in eastern most property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 133	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 11, upstream  <b>Location:</b> Northern region of eastern property parcel.			





# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 134	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 11, downstream  <b>Location:</b> Northern region of eastern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 135	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 12, upstream  <b>Location:</b> Western region of eastern most property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 136	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 12, downstream  <b>Location:</b> Western region of eastern most property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 137	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 14, upstream  <b>Location:</b> Northern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 138	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 14, downstream  <b>Location:</b> Northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 139	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 15, upstream  <b>Location:</b> Northern region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 140	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 15, downstream  <b>Location:</b> Northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 141	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Ephemeral Stream 16, upstream  <b>Location:</b> North of Intermittent Stream 15, in northern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 142	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Ephemeral Stream 16, downstream  <b>Location:</b> North of Intermittent Stream 15, in northern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 143	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Ephemeral Stream 17, upstream  <b>Location:</b> South of Intermittent Stream 15.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 144	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Ephemeral Stream 17, downstream  <b>Location:</b> South of Intermittent Stream 15.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 145	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 19, upstream  <b>Location:</b> West of Intermittent Stream 16.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 146	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 19, downstream  <b>Location:</b> West of Intermittent Stream 16.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 147	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 20, upstream  <b>Location:</b> Connects both portions of Wetland 15 in central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 148	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 20, downstream  <b>Location:</b> Connects both portions of Wetland 15 in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 149	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Ephemeral Stream 21, upstream  <b>Location:</b> North of Intermittent Stream 17, in eastern region of central property parcel.			





# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 150	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Ephemeral Stream 22, downstream  <b>Location:</b> North of Intermittent Stream 17, in eastern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 151	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 22, upstream  <b>Location:</b> Connects both portions of Wetland 14, in eastern region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 152	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 22, downstream  <b>Location:</b> Connects both portions of Wetland 14, in eastern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 153	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 23, upstream  <b>Location:</b> South of Intermittent Stream 17, in eastern region of central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 154	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 23, downstream  <b>Location:</b> South of Intermittent Stream 17, in eastern region of central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 155	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 24, upstream  <b>Location:</b> North of Perennial Stream 8, in central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 156	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 24, downstream  <b>Location:</b> North of Perennial Stream 8, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 157	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 25, upstream  <b>Location:</b> North of Perennial Stream 8, in central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 158	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 25, downstream  <b>Location:</b> North of Perennial Stream 8, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 159	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Ephemeral Stream 26, upstream  <b>Location:</b> North of Perennial Stream 8, in central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 160	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Ephemeral Stream 26, downstream  <b>Location:</b> North of Perennial Stream 8, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 161	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Ephemeral Stream 27, upstream  <b>Location:</b> South of Intermittent Stream 19, in central property parcel			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 162	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Ephemeral Stream 27, downstream  <b>Location:</b> South of Intermittent Stream 19, in central property parcel			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 163	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 28, downstream  <b>Location:</b> North of Ephemeral Stream 29 in southern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 164	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 30, upstream  <b>Location:</b> North of Perennial Stream 2, in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 165	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 30, downstream  <b>Location:</b> North of Perennial Stream 2, in southern region of Project Boundary.			






# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 166	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 31, upstream  <b>Location:</b> In southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 167	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 31, downstream  <b>Location:</b> In southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 168	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 32, upstream  <b>Location:</b> In southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 169	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 32, downstream  <b>Location:</b> In southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 170	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 33, upstream  <b>Location:</b> North of Intermittent Stream 23, in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 171	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 33, downstream  <b>Location:</b> North of Intermittent Stream 23, in southern region of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 172	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 34, upstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 173	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 34, downstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 174	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 1, upstream  <b>Location:</b> West of Intermittent Stream 7, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 175	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 1, downstream  <b>Location:</b> West of Intermittent Stream 7, in northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 176	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 2, upstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 177	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 2, downstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 178	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Upland Ditch 3, upstream  <b>Location:</b> North of Intermittent Stream 18, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 179	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Upland Ditch 3, downstream  <b>Location:</b> North of Intermittent Stream 18, in central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 180	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Upland Ditch 4, upstream  <b>Location:</b> North of Upland Ditch 3, in northern central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 181	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Upland Ditch 4, downstream  <b>Location:</b> North of Upland Ditch 3, in northern central property parcel.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 182	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 5, upstream  <b>Location:</b> Within Wetland 16, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 183	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 5, downstream  <b>Location:</b> Within Wetland 16, in central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 184	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-38  <b>Location:</b> North of Ephemeral Stream 34 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 185	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-39  <b>Location:</b> Data point taken in an upland drainage area facing southwest.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 186	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-40  <b>Location:</b> Data point taken in an upland drainage area facing southwest.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 187	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-41  <b>Location:</b> Data point taken in an upland drainage area facing west.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 188	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-42  <b>Location:</b> Data point taken in an upland drainage area northeast of Open Water 19 facing west.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 189	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-43  <b>Location:</b> Data point taken in an upland drainage area east of Open Water 19 facing west.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 190	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-44  <b>Location:</b> Data point taken in a drained pond located southeast of Open Water 19.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 191	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-45  <b>Location:</b> Data point taken in an upland drainage area facing west.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 192	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-46  <b>Location:</b> Data point taken south of Open Water 21 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 193	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-47  <b>Location:</b> Data point taken in an upland drainage area facing east.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 194	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-48  <b>Location:</b> Data point taken in an upland drainage area facing east.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 195	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-49  <b>Location:</b> Data point taken in an upland drainage area facing north.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 196	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-50  <b>Location:</b> Data point taken in a drained pond facing north.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 197	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-51  <b>Location:</b> Data point taken in an upland drainage area facing south.			






# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 198	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-52 (Wetland 21)  <b>Location:</b> Data point is representative of PEM Wetland 21 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 199	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-53  <b>Location:</b> Data point taken west of Intermittent Stream 23 facing north.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 200	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-54 (Wetland 20)  <b>Location:</b> Data point is representative of PEM Wetland 20 facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 201	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-55 (Wetland 22)  <b>Location:</b> Data point representative of PEM Wetland 22 facing west.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 202	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-56  <b>Location:</b> Data point is an upland plot located adjacent to Wetland 22 and Wetland 23 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 203	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-57  <b>Location:</b> Data point is representative of PSS Wetland 23 facing west.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 204	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> DP-58  <b>Location:</b> Data point is located in an upland drainage area facing northwest.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 205	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-59  <b>Location:</b> Data point is representative of PEM Wetland 24 facing southwest.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 206	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-60  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 24 facing west.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 207	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-61  <b>Location:</b> Data point taken in a drainage area adjacent to Open Water 35 facing west.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 208	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-62  <b>Location:</b> Data point taken in a drainage area adjacent to Perennial Stream 10 facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 209	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-63  <b>Location:</b> Data point taken in drainage area adjacent to Perennial Stream 10 facing west.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 210	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-64 (Wetland 25)  <b>Location:</b> Data point is representative of PEM Wetland 25 facing west.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 211	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-65  <b>Location:</b> Data point representative of upland habitat adjacent to Wetland 25 facing south.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 212	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-66  <b>Location:</b> Data point taken in drainage area adjacent to Perennial Stream 10 facing south.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 213	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-67 (Wetland 26)  <b>Location:</b> Data point is representative of PEM Wetland 26 facing south.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 214	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-68  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 26 facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 215	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-69 (Wetland 27)  <b>Location:</b> Data point is representative of PEM Wetland 27 facing south.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 216	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-70  <b>Location:</b> Data point is representative of upland habitat in a forested area facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 217	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-71 (Wetland 28)  <b>Location:</b> Data point is representative of PSS Wetland 28 facing south.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 218	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-72  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 27 and Wetland 28 facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 219	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-73  <b>Location:</b> Data point taken in upland habitat adjacent to Ephemeral Stream 41 facing southwest.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 220	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-74  <b>Location:</b> Data point taken in upland habitat near the beginning of Ephemeral Stream 43 facing southwest.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 221	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-75  <b>Location:</b> Data point taken in upland habitat near the beginning of Ephemeral Stream 44 facing north.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 222	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-76 (Wetland 29)  <b>Location:</b> Data point is representative of PEM Wetland 29 facing southwest.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 223	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-77  <b>Location:</b> Data point representative of upland habitat adjacent to Wetland 29 facing west.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 224	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> DP-78  <b>Location:</b> Data point representative of upland habitat in a mapped NWI freshwater pond facing southeast.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 225	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-79 (Wetland 30)  <b>Location:</b> Data point is representative of PEM Wetland 30 facing east.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 226	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-80  <b>Location:</b> Data point representative of upland habitat adjacent to Wetland 30 facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 227	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> DP-81  <b>Location:</b> Data point taken in an upland drainage ditch facing northeast.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 228	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-82  <b>Location:</b> Data point taken in an upland drainage ditch facing north.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 229	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-83  <b>Location:</b> Data point representative of upland habitat surrounding Open Water 39 facing west.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 230	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-84  <b>Location:</b> Data point representative of upland habitat adjacent to Open Water 24 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 231	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-85  <b>Location:</b> Data point representative of upland habitat adjacent to Perennial Stream 10 facing north.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 232	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-86 (Wetland 31)  <b>Location:</b> Data point is representative of PEM Wetland 31 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 233	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-87  <b>Location:</b> Data point representative of upland habitat adjacent to Wetland 31 facing north.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 234	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-88 (Wetland 32)  <b>Location:</b> Data point is representative of PEM Wetland 32 facing east.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 235	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-89  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 32 facing east.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 236	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> DP-90 (Wetland 33)  <b>Location:</b> Data point is representative of PEM Wetland 33 facing northeast.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 237	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-91  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 33 facing north.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 238	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-92 (Wetland 34)  <b>Location:</b> Data point is representative of PEM Wetland 34 facing southwest.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 239	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> DP-93  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 34 facing southeast.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 240	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-94  <b>Location:</b> Data point taken in an upland drainage area facing southwest.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 241	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-95 (Wetland 35)  <b>Location:</b> Data point is representative of PEM Wetland 35 facing east.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 242	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-96  <b>Location:</b> Data point taken in an upland drainage area facing east.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 243	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-97  <b>Location:</b> Data point representative of upland habitat in a mapped NWI freshwater pond facing south.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 244	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> DP-98 (Wetland 36)  <b>Location:</b> Data point is representative of PEM Wetland 36 facing northeast.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 245	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-99  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 36 facing east.			






# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 246	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-100  <b>Location:</b> Data point taken in an upland drainage area adjacent to Intermittent Stream 31 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 247	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-101 (Wetland 37)  <b>Location:</b> Data point representative of PSS Wetland 37 facing west.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 248	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-102  <b>Location:</b> Data point is representative of upland habitat adjacent to Wetland 37 facing south.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 249	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-103 (Wetland 38)  <b>Location:</b> Data point is representative of PEM Wetland 38 facing west.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 250	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Upland Ditch 6, upstream  <b>Location:</b> South of Open Water 21.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 251	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Upland Ditch 6, downstream  <b>Location:</b> South of Open Water 21.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 252	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 7, upstream  <b>Location:</b> Upstream of Ephemeral Stream 35.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 253	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 7, downstream  <b>Location:</b> Upstream of Ephemeral Stream 35.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 254	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 8, upstream  <b>Location:</b> Upland ditch leading to Open Water 25.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 255	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 8, downstream  <b>Location:</b> Upland ditch leading to Open Water 25.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 256	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Upland Ditch 9, upstream  <b>Location:</b> South of Wetland 31 and along an access road.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 257	<b>Date:</b> 11/17/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Upland Ditch 9, downstream  <b>Location:</b> South of Wetland 31 and along an access road.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 258	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Upland Ditch 10, upstream  <b>Location:</b> Upland ditch in a pasture leading to Perennial Stream 12.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 259	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Upland Ditch 10, downstream  <b>Location:</b> Upland ditch in a pasture leading to Perennial Stream 12.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 260	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 11, upstream  <b>Location:</b> Outflow from Wetland 25 leading to Perennial Stream 10.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 261	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 11, downstream  <b>Location:</b> Outflow from Wetland 25 leading to Perennial Stream 10.			





# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 262	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 34, downstream  <b>Location:</b> East of Open Water 43.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 263	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 34, upstream  <b>Location:</b> East of Open Water 43.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 264	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 35, downstream  <b>Location:</b> Along northern boundary of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 265	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 35, upstream  <b>Location:</b> East of Wetland 11, in northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 266	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 36, downstream  <b>Location:</b> East of Open Water 18 and adjacent to Wetland 30.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 267	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 36, upstream  <b>Location:</b> East of Open Water 18 and adjacent to Wetland 30.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 268	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 37, downstream  <b>Location:</b> North of Intermittent Stream 31.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 269	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 37, upstream  <b>Location:</b> North of Intermittent Stream 31.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 270	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Ephemeral Stream 38, downstream  <b>Location:</b> North of Wetland 48 and south of Open Water 29.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 271	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Ephemeral Stream 38, upstream  <b>Location:</b> North of Wetland 48 and south of Open Water 29.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 272	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 39, downstream  <b>Location:</b> South of Intermittent Stream 31.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 273	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 39, upstream  <b>Location:</b> South of Intermittent Stream 31.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 274	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 40, downstream  <b>Location:</b> South of Intermittent Stream 33.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 275	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 40, upstream  <b>Location:</b> South of Intermittent Stream 33.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 276	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 41, downstream  <b>Location:</b> West of Intermittent Stream 34 and flows through a forested area.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 277	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 41, upstream  <b>Location:</b> West of Intermittent Stream 34 and flows through a forested area.			






# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 278	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 42, downstream  <b>Location:</b> Between Intermittent Stream 34 and Wetland 37.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 279	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 42, upstream  <b>Location:</b> Between Intermittent Stream 34 and Wetland 37.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 280	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 43, downstream  <b>Location:</b> East of Intermittent Stream 34.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 281	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 43, upstream  <b>Location:</b> East of Intermittent Stream 34.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 282	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> Southeast			
<b>Description:</b> Ephemeral Stream 44, downstream  <b>Location:</b> East of Intermittent Stream 34, flows into Ephemeral Stream 43.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 283	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> Ephemeral Stream 44, upstream  <b>Location:</b> East of Intermittent Stream 34, flows into Ephemeral Stream 43.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 284	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 45, downstream  <b>Location:</b> Flows east into Open Water 40.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 285	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 45, upstream  <b>Location:</b> Flows east into Open Water 40.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 286	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 46, downstream  <b>Location:</b> Between Open Water 40 and Intermittent Stream 34.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 287	<b>Date:</b> 11/15/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 46, upstream  <b>Location:</b> Between Open Water 40 and Intermittent Stream 34.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 288	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 47, downstream  <b>Location:</b> Flows north into Perennial Stream 10.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 289	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Ephemeral Stream 47, upstream  <b>Location:</b> Flows north into Perennial Stream 10.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 290	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 48, downstream  <b>Location:</b> Between Wetland 36 and Perennial Stream 10.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 291	<b>Date:</b> 11/18/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 48, upstream  <b>Location:</b> Between Wetland 36 and Perennial Stream 10.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 292	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Ephemeral Stream 49, downstream  <b>Location:</b> Flows southwest into Open Water 34.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 293	<b>Date:</b> 11/14/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Ephemeral Stream 49, upstream  <b>Location:</b> Flows southwest into Open Water 34.			





# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 294	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 50, downstream  <b>Location:</b> Flows north into Perennial Stream 10.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 295	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 50, upstream  <b>Location:</b> Flows north into Perennial Stream 10.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 296	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 51, downstream  <b>Location:</b> Flows north into Intermittent Stream 38.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 297	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 51, upstream  <b>Location:</b> Flows north into Intermittent Stream 38.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 298	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 52, downstream  <b>Location:</b> Flows east into Perennial Stream 10.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 299	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 52, upstream  <b>Location:</b> Flows east into Perennial Stream 10.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 300	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 53, downstream  <b>Location:</b> Flows south outside the project boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 301	<b>Date:</b> 11/16/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 53, upstream  <b>Location:</b> Flows south outside the project boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 302	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Ephemeral Stream 27, downstream  <b>Location:</b> South of Intermittent Stream 19, in central property parcel			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 303	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 28, downstream  <b>Location:</b> North of Ephemeral Stream 29 in southern region of central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 304	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 30, upstream  <b>Location:</b> North of Perennial Stream 2, in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 305	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 30, downstream  <b>Location:</b> North of Perennial Stream 2, in southern region of Project Boundary.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 306	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 31, upstream  <b>Location:</b> In southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 307	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 31, downstream  <b>Location:</b> In southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 308	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Ephemeral Stream 32, upstream  <b>Location:</b> In southern region of Project Boundary.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 309	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 32, downstream  <b>Location:</b> In southern region of Project Boundary.			






# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 310	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 33, upstream  <b>Location:</b> North of Intermittent Stream 23, in southern region of Project Boundary.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 311	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Ephemeral Stream 33, downstream  <b>Location:</b> North of Intermittent Stream 23, in southern region of Project Boundary.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 312	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Ephemeral Stream 34, upstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 313	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Ephemeral Stream 34, downstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 314	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 1, upstream  <b>Location:</b> West of Intermittent Stream 7, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 315	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 1, downstream  <b>Location:</b> West of Intermittent Stream 7, in northern property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 316	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 2, upstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 317	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 2, downstream  <b>Location:</b> West of Wetland 10, in northern property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 318	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> Upland Ditch 3, upstream  <b>Location:</b> North of Intermittent Stream 18, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 319	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> Upland Ditch 3, downstream  <b>Location:</b> North of Intermittent Stream 18, in central property parcel.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 320	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Upland Ditch 4, upstream  <b>Location:</b> North of Upland Ditch 3, in northern central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 321	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> Upland Ditch 4, downstream  <b>Location:</b> North of Upland Ditch 3, in northern central property parcel.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 322	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> Upland Ditch 5, upstream  <b>Location:</b> Within Wetland 16, in central property parcel.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 323	<b>Date:</b> 11/13/2022		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> Upland Ditch 5, downstream  <b>Location:</b> Within Wetland 16, in central property parcel.			



**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
324

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 54  
facing upstream.



**Photo No.**  
325

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 55  
facing downstream.







**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
326

**Date:**  
11/13/2022

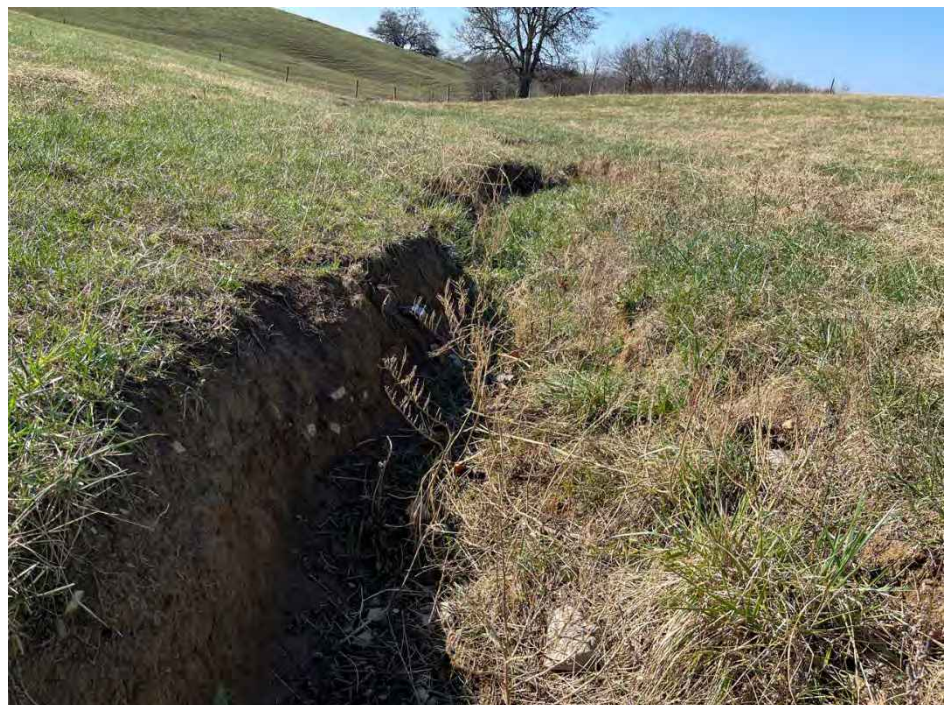
**Description:**  
View of Ephemeral Stream 56  
facing downstream.



**Photo No.**  
327

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 57  
facing upstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
328

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 58  
facing upstream.



**Photo No.**  
329

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 59  
facing upstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
330

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 60  
facing upstream.



**Photo No.**  
331

**Date:**  
11/13/2022

**Description:**  
View of Ephemeral Stream 63  
facing upstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
332

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 30  
facing upstream.



**Photo No.**  
333

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 31  
facing downstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
334

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 32  
facing upstream.



**Photo No.**  
335

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 33  
facing upstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
336

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 34  
facing downstream.



**Photo No.**  
337

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 35  
facing downstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
338

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 36  
facing upstream.



**Photo No.**  
339

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 37  
facing downstream.





**Appendix B - Frontier Solar Project  
Photographic Record**

**Project Name:**  
Frontier Solar Project

**Location:**  
Marion and Washington Counties, KY

**Project Number:**  
0650014

**Photo No.**  
340

**Date:**  
11/13/2022

**Description:**  
View of Intermittent Stream 38  
facing downstream.



**Photo No.**  
341

**Date:**  
11/13/2022


**Description:**  
View of Intermittent Stream 39  
facing downstream.









# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 342	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-104 (Wetland 39)  <b>Location:</b> Data point is representative of PEM wetland conditions at Wetland 39.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 343	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-105  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 39.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 343	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-106  <b>Location:</b> Data point is representative of upland conditions.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 344	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-107  <b>Location:</b> Data point is representative of upland conditions facing Open Water 44.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 345	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-108  <b>Location:</b> Data point is representative of upland conditions in a NHD marked stream.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 346	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-109  <b>Location:</b> Data point is representative of upland conditions in a NWI marked fresh water pond.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 347	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-110  <b>Location:</b> Data point is representative of upland conditions.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 348	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-111  <b>Location:</b> Data point is representative of upland conditions facing Servant Run.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 349	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-112 (Wetland 52)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 52.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 350	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-113 (Wetland 51)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 51.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 351	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-114  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 51.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 352	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-115  <b>Location:</b> Data point is representative of upland conditions within an NWI mapped freshwater pond.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 353	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-116 (Wetland 40)  <b>Location:</b> Data point is representative of PFO wetland conditions within Wetland 40.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 354	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-117  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 40.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 355	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-118  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 41.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 356	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-119 (Wetland 41)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 41.			






# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 357	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-120  <b>Location:</b> Data point is representative of upland conditions within a floodplain. Facing ephemeral stream 69.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 358	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-121  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 42.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 359	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-122 (Wetland 42)  <b>Location:</b> Data point is representative of PSS wetland conditions within Wetland 42.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 360	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-123 (Wetland 43)  <b>Location:</b> Data point is representative of PFO wetland conditions within Wetland 43. Facing Open Water 47.			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 361	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-124  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 43.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 362	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-125 (Wetland 44)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 44. The wetland has been impacted by cattle; Facing Open Water 49.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 363	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-126  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 44; Facing Wetland 44.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 364	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-127 (Wetland 45)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 45.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 365	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-128  <b>Location:</b> Data point is representative of upland conditions; Facing Wetland 45.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 366	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-129 (Wetland 46)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 46.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 367	<b>Date:</b> 12/06/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-130  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 45.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 368	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-131  <b>Location:</b> Data point is representative of upland conditions within a Drainage way between Open Water 51 and Stream 1018.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 369	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-132 (Wetland 47)  <b>Location:</b> Data point is representative of PFO wetland conditions within Wetland 47; Facing Open Water 51.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 370	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-133  <b>Location:</b> Data point is representative of upland conditions upslope of Wetland 47; Facing Open Water 51.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 371	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-134  <b>Location:</b> Data point is representative of upland swale conditions between Ephemeral stream 73 and Wetland 48.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 372	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-135 (Wetland 48)  <b>Location:</b> Data point is representative of PSS wetland conditions within Wetland 48.			






# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 373	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-136 (Wetland 49)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 49.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 374	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-137  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 49.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 375	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-138 (Wetland 50)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 50.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 376	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-139  <b>Location:</b> Data point is representative of upland conditions; Facing Wetland 50.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 377	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-140  <b>Location:</b> Data point is representative for forested upland conditions.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 378	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-141  <b>Location:</b> Data point is representative for forested upland conditions.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 379	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-142 (Wetland 53)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 53.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 380	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-143  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 53.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 381	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-144 (Wetland 54)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 54.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 382	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-145  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 54.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 383	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> DP-146 (Wetland 55)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 55.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 384	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> Northeast			
<b>Description:</b> DP-147  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 55			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 385	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> Southwest			
<b>Description:</b> DP-148 (Wetland 56)  <b>Location:</b> Data point is representative of PSS wetland conditions within Wetland 56.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 386	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-149  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 56.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 387	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b> DP-150 (Wetland 57)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 57.			


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 388	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> West			
<b>Description:</b> DP-151  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 57.			






# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 389	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> South			
<b>Description:</b> DP-152 (Wetland 58)  <b>Location:</b> Data point is representative of PEM wetland conditions within Wetland 58.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 390	<b>Date:</b> 12/13/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-153  <b>Location:</b> Data point is representative of upland conditions adjacent to Wetland 58; Facing Wetland 58.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 391	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b> East			
<b>Description:</b> DP-154  <b>Location:</b> Data point is representative of upland conditions next to a perennial stream (Cartwright Creek).			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 392	<b>Date:</b> 06/03/2022		
<b>Direction Photo Taken:</b> North			
<b>Description:</b> Wetland 59  <b>Location:</b> PEM wetland along intermittent stream 23.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 393	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 44  <b>Location:</b> Photo is representative of Open Water Feature 44.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 394	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 45  <b>Location:</b> Photo is representative of Open Water Feature 45.			



# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 395	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 46  <b>Location:</b> Photo is representative of Open Water Feature 46.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 396	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 47  <b>Location:</b> Photo is representative of Open Water Feature 47.			




# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 397	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 48  <b>Location:</b> Photo is representative of Open Water Feature 48.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 398	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 49  <b>Location:</b> Photo is representative of Open Water Feature 49.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 399	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 50  <b>Location:</b> Photo is representative of Open Water Feature 44.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 400	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 51  <b>Location:</b> Photo is representative of Open Water Feature 45.			




# APPENDIX B — FRONTIER SOLAR SITE


<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 401	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Open Water 52  <b>Location:</b> Photo is representative of Open Water Feature 52.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 402	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Upland ditch 15  <b>Location:</b> Photo is representative of conditions at Upland Ditch 15			



# APPENDIX B — FRONTIER SOLAR SITE

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 403	<b>Date:</b> 12/07/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b> Upland Ditch 16  <b>Location:</b> Photo is representative of conditions at Upland Ditch 16.			

<b>Project Name:</b> Frontier Solar Site		<b>Location:</b> Marion and Washington Counties, KY	<b>Project Number:</b> 0650014
<b>Photo Number:</b> 404	<b>Date:</b> 12/05/2023		
<b>Direction Photo Taken:</b>			
<b>Description:</b>  <b>Location:</b>			



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## **Appendix C: Wetland Determination Data Forms**

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**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 5/31/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-01  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.62426982 Long: -85.2864969 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes, eroded (LoC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat adjacent to PEM Wetland 1.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		<u>✓</u> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 One secondary wetland indicator was observed. However, criteria for meeting the presence of wetland hydrology was not observed.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-01

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Persicaria longiseta</u> 60	Yes	FACW
2.	<u>Chenopodium album</u> 20	Yes	FACU
3.	<u>Ambrosia artemisiifolia</u> 10	No	FACU
4.	<u>Vernonia gigantea</u> 5	No	FAC
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	95	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	
12-16	10YR 3/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/2/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-02  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.62582562 Long: -85.28718821 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay, 6 to 12 percent slopes, severely eroded (LpC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

Plot is representative of PEM Wetland 1.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/> No _____	
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>4</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>		

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

Remarks:

Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-02

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Typha angustifolia</u>	<u>80</u>	<u>Yes</u> <u>OBL</u>
2.	<u>Scirpus cyperinus</u>	<u>5</u>	<u>No</u> <u>FACW</u>
3.	<u>Persicaria longiseta</u>	<u>1</u>	<u>No</u> <u>FAC</u>
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes ✓ No \_\_\_\_\_

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

Hydrophytic vegetation is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/1	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup>
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)
	<input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____
---	--

**Remarks:**  
Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/1/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-03  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1-2  
 Subregion (LRR or MRLA): LRR N Lat: 37.64501976 Long: -85.27517297 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland habitat adjacent to PFO Wetland 2.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes _____	No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		

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

Remarks:

Wetland hydrology indicators were not observed.



**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-03

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Aesculus flava</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Celtis occidentalis</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>60</u>	<u>= Total Cover</u>	
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15-ft. radius</u> )				
1.	<u>Celtis occidentalis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Aesculus flava</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>No</u>	<u>FACW</u>
4.	<u>Quercus alba</u>	<u>2</u>	<u>No</u>	<u>FACU</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>52</u>	<u>= Total Cover</u>	
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Euonymus americanus</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Rosa multiflora</u>	<u>15</u>	<u>No</u>	<u>FACU</u>
3.	<u>Galium circaezans</u>	<u>10</u>	<u>No</u>	<u>UPL</u>
4.	<u>Alliaria petiolata</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5.	<u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>95</u>	<u>= Total Cover</u>	
<u>Woody Vine Stratum</u> (Plot Size: <u>30-ft. radius</u> )				
1.	<u>Toxicodendron radicans</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		<u>10</u>	<u>= Total Cover</u>	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/1	100					SIL	
1-4	10YR 4/3	80	10YR 4/2	20	D	M	SiCL	
4-16	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/1/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-04  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.64512122 Long: -85.27520852 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: R4SBC

Are climatic/hydrologic conditions of the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			

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

Plot is representative of PFO Wetland 2.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes <u>✓</u>	No _____
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes <u>✓</u>	No _____	Depth (inches): <u>6</u>		

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

Remarks:

Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-04

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Aesculus flava</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Acer negundo</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
3.	<u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>30</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Aesculus flava</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Celtis occidentalis</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
4.	<u>Lonicera japonica</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>30</u>	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Dichanthelium scoparium</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Impatiens capensis</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
3.	<u>Boehmeria cylindrica</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
4.	<u>Rosa multiflora</u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5.	<u>Galium asprellum</u>	<u>10</u>	<u>No</u>	<u>OBL</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>70</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Toxicodendron radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		<u>5</u>	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	50					SIL	
	10YR 3/2	50						
3-14	10YR 4/2	68	10YR 3/6	30	C	M	SiCL	
			10YR 3/4	2	C	PL		
14+	Restriction							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic Sol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock  
 Depth (inches): 14

Hydric Soil Present?

Yes  No

**Remarks:**  
 Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/1/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-05  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.64073878 Long: -85.27528167 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to PFO Wetland 3. Plot is located within upland area within wetland drainage.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present?	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		Yes _____

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

Remarks:  
**Wetland hydrology indicators were not observed.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-05

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15-ft. radius</u> )				
1.	Fraxinus pennsylvanica	5	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		5 _____ = Total Cover		
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )				
1.	Xanthium strumarium	40	Yes	FAC
2.	Ambrosia artemisiifolia	40	Yes	FACU
3.	Ranunculus hispidus	5	No	FAC
4.	Poa sp.	5	No	N/A
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		90 _____ = Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation was present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	2.5Y 4/3	70	10YR 4/6	30	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F17)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)</p> <p><input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)</p> <p><input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**

Hydric soils indicators were not observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/1/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-06  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MRLA): LRR N Lat: 37.6407066 Long: -85.27500658 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 3, which is located in a drainage/spillway for a pond (Open Water 12).

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>8</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Ambrosia trifida</u>	<u>20</u>	<u>Yes</u> <u>FAC</u>
2.	<u>Carex vulpinoidea</u>	<u>10</u>	<u>Yes</u> <u>OBL</u>
3.	<u>Juncus effusus</u>	<u>5</u>	<u>No</u> <u>FACW</u>
4.	<u>Ranunculus hispidus</u>	<u>5</u>	<u>No</u> <u>FAC</u>
5.	<u>Xanthium strumarium</u>	<u>2</u>	<u>No</u> <u>FAC</u>
6.	<u>Scirpus atrovirens</u>	<u>2</u>	<u>No</u> <u>OBL</u>
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	2.5YR 3/2	88	10YR 4/6	10	C	M	SIL	
			10YR 3/1	2	C	M		
4-16	2.5YR 4/2	75	10YR 4/6	20	C	M, PL	SiCL	
			10YR 2/1	5	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic Sol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**  
 Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/1/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-07  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63961549 Long: -85.27161606 Datum: NAD 83  
 Soil Map Unit Name: Nicholson silt loam, 6 to 12 percent slopes (NhC) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland habitat adjacent to PEM Wetland 4.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		

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

Remarks:

Wetland hydrology indicators were not observed.

Tree Stratum (Plot Size: 30 ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
	_____	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15-ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
	_____	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Solidago canadensis</i>	75	Yes	FACU
2. <i>Asclepias syriaca</i>	20	No	FACU
3. <i>Poa pratensis</i>	15	No	FACU
4. <i>Vernonia angustifolia</i>	10	No	FACU
5. <i>Rumex crispus</i>	5	No	FAC
6. <i>Alliaria petiolata</i>	5	No	FACU
7. <i>Bromus arvensis</i>	5	No	FACU
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	135	= Total Cover	

Woody Vine Stratum (Plot Size: 30-ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not present.

SOIL

Sampling Point: \_\_\_\_\_

DP-07

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/4	95	10YR 3/3	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

Remarks:  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/1/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-08  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MRLA): LRR N Lat: 37.63922802 Long: -85.27190993 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes, eroded (FoC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

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

Plot is representative of PEM Wetland 4.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>8</u>		

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

Remarks:

Primary wetland hydrology indicators were present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Poa pratensis</u> 25	Yes	FACU
2.	<u>Scirpus atrovirens</u> 20	Yes	OBL
3.	<u>Solidago rugosa</u> 20	Yes	FAC
4.	<u>Carex vulpinoidea</u> 15	No	OBL
5.	<u>Juncus effusus</u> 5	No	FACW
6.	<u>Phleum pratense</u> 5	No	FACU
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	90	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation is present.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/2						SiCL	
7-14	10YR 4/2	75	10YR 4/6	20	C	M	SiCL	
			10YR 4/4	5	C	PL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/2/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-09  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.62312883 Long: -85.27770654 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay, 6 to 12 percent slopes, severely eroded (LpC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to PEM Wetland 5, PEM Wetland 6, and Open Water 7.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes _____ No <input checked="" type="checkbox"/>

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

Remarks:  
**Wetland hydrology indicators were not observed.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-09

Tree Stratum (Plot Size: 30 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: 15-ft. radius )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: 5 ft. radius )				
1.	<i>Poa trivialis</i>	40	Yes	FACW
2.	<i>Solidago canadensis</i>	15	Yes	FACU
3.	<i>Allium canadense</i>	2	No	FACU
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		57	= Total Cover	
Woody Vine Stratum (Plot Size: 30-ft. radius )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/3	90	10YR 5/8	10	C	M	SiCL	
12-20	10YR 5/4	85	10YR 4/6	10	C	M	SiCL	
			10YR 2/2	5	C	PL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/2/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-10  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.62311879 Long: -85.27805285 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay, 6 to 12 percent slopes, severely eroded (LpC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 5, which is located within a seep next to an agricultural pond (Open Water 7).**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>	

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

Remarks:  
**Primary wetland hydrology indicators were present.**

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Carex frankii</u>	<u>40</u>	<u>Yes</u> OBL
2.	<u>Carex vulpinoidea</u>	<u>30</u>	<u>Yes</u> OBL
3.	<u>Scirpus cyperinus</u>	<u>10</u>	<u>No</u> OBL
4.	<u>Poa pratensis</u>	<u>5</u>	<u>No</u> FACU
5.	<u>Eleocharis obtusa</u>	<u>5</u>	<u>No</u> OBL
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation is present.

**SOIL**

**Sampling Point:** DP-10

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/2	100					SIL	
1-14	10YR 5/1	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F17)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)</p> <p><input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)</p> <p><input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes <input checked="" type="checkbox"/>      No _____</p>
--	---

**Remarks:**  
Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/2/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-11  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR or MRLA): LRR N Lat: 37.62290073 Long: -85.27882142 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes, eroded (FaC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 6, which is located within a seep next to an agricultural pond (Open Water 7).**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		

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

Remarks:  
**Primary wetland hydrology indicators were present.**



Tree Stratum (Plot Size: 30 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: 15-ft. radius )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____ = Total Cover		
Herb Stratum (Plot Size: 5 ft. radius )				
1.	Carex frankii	70	Yes	OBL
2.	Carex vulpinoidea	20	Yes	OBL
3.	Poa pratensis	10	Yes	FACU
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100 = Total Cover		
Woody Vine Stratum (Plot Size: 30-ft. radius )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 5/2	90	10YR 3/4	10	C	M, PL	SiCL	
6-14	10YR 5/1	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/2/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-12  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.62604211 Long: -85.2747530839 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes, eroded (LoC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

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

Plot is representative of upland habitat adjacent to PFO Wetland 7.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____	No <u>✓</u>
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:

Wetland hydrology indicators were not observed.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-12

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Maclura pomifera</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>
2.	<u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
3.	<u>Ulmus rubra</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
4.	<u>Celtis occidentalis</u>	<u>15</u>	<u>No</u>	<u>FACU</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>85</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.	<u>Cornus florida</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Symphoricarpos orbiculatus</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Celtis occidentalis</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>15</u>	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Glechoma hederacea</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Campsis radicans</u>	<u>15</u>	<u>No</u>	<u>FAC</u>
3.	<u>Parthenocissus quinquefolia</u>	<u>15</u>	<u>No</u>	<u>FACU</u>
4.	<u>Impatiens capensis</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
5.	<u>Persicaria virginiana</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>130</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.	<u>Toxicodendron radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Smilax rotundifolia</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		<u>6</u>	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.5 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/3	100					SiCL	
2-4	10YR 4/3	80	10YR 4/2	15	C	M	SiCL	
			10YR 4/6	5	C	M		
4-14	2.5Y 5/3	80	2.5Y 5/6	20	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/2/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-13  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2.5  
 Subregion (LRR or MRLA): LRR N Lat: 37.62608053 Long: -85.27497307 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes, eroded (LoC2) NWI Classification: R4SBC

Are climatic/hydrologic conditions of the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			

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

Plot is representative of PFO Wetland 7.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	<u>✓</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes <u>✓</u>	No _____
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes <u>✓</u>	No _____	Depth (inches): <u>0</u>		

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

Remarks:

Primary wetland hydrology indicators were present.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Celtis occidentalis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Populus deltoides</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
4.	<u>Maclura pomifera</u>	<u>5</u>	<u>No</u>	<u>UPL</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>60</u>	<u>= Total Cover</u>	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.	<u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Celtis occidentalis</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>30</u>	<u>= Total Cover</u>	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Campsis radicans</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Elymus sp.</u>	<u>10</u>	<u>Yes</u>	<u>N/A</u>
3.	<u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
4.	<u>Persicaria virginiana</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>30</u>	<u>= Total Cover</u>	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	<u>= Total Cover</u>	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/3	100					SIL	
2-10	10YR 4/2	95	2.5Y 4/6	5	C	PL	SIL	
10-14	10YR 4/3	70	10YR 4/2	30	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic Sol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/3/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-14  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.60853635 Long: -85.2646496 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes, eroded (LoC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to PFO Wetland 8.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
**Wetland hydrology indicators were not observed.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-14

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Acer rubrum</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Fraxinus pennsylvanica</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>
3.	<u>Quercus bicolor</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>65</u>	<u>= Total Cover</u>	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.	<u>Celtis occidentalis</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Symphoricarpos orbiculatus</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Acer rubrum</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>40</u>	<u>= Total Cover</u>	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Sanicula odorata</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Persicaria virginiana</u>	<u>15</u>	<u>No</u>	<u>FAC</u>
3.	<u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
4.	<u>Viola sp</u>	<u>5</u>	<u>No</u>	<u>N/A</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>85</u>	<u>= Total Cover</u>	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	<u>= Total Cover</u>	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.1 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100					CL	
2-14	10YR 5/4	10					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/3/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-15  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.6085346 Long: -85.26442236 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FaD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

Plot is representative of PFO Wetland 8.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: Check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____		
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>1</u>			
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>			

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

Remarks:

Primary wetland hydrology indicators were present.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Celtis occidentalis</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Aesculus glabra</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>50</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Celtis occidentalis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Rosa multiflora</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>30</u>	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Impatiens capensis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Persicaria hydropiperoides</u>	<u>15</u>	<u>No</u>	<u>OBL</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>95</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species _____	x 3 = _____
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species _____	x 5 = _____
Column Totals: <u>175</u> (A)	<u>495</u> (B)
Prevalence Index = B/A = <u>2.8</u>	

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - x \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is present due to passing the Prevalence Index criteria.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/1	100					Muck	
3+	Restriction							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock  
Depth (inches): 3

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-16  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 10-15  
 Subregion (LRR or MLRA): LRR N, MLRA 121 Lat: 37.639432 Long: -85.278994 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 9.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
--	---

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

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-16

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Ambrosia trifida</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Ambrosia artemisiifolia</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Vernonia fasciculata</u>	<u>20</u>	<u>No</u>	<u>FAC</u>
4. <u>Poa pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5. <u>Festuca arundinacea</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
6. <u>Solanum carolinense</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
7. <u>Bromus arvensis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	<u>105</u> = Total Cover		
50% of total cover: <u>53</u>	20% of total cover: <u>21</u>		

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.



**SOIL**

Sampling Point: DP-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/3	100						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ Bedrock  
 Depth (inches): \_\_\_\_\_ 12

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:  
 Restrictive rock layer at 12 inches.  
 Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-17  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MLRA): LRR N Lat: 37.639455 Long: -85.279016 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 9.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-17

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Scirpus atrovirens</u>	<u>60</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Festuca arundinacea</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Vernonia fasciculata</u>	<u>15</u>	<u>No</u>	<u>FAC</u>
4. <u>Poa pratensis</u>	<u>15</u>	<u>No</u>	<u>FACU</u>
5. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6. <u>Carex vulpinoidea</u>	<u>5</u>	<u>No</u>	<u>OBL</u>
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>65</u> 20% of total cover: <u>26</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>65</u>	x 1 = <u>65</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>130</u> (A)	<u>305</u> (B)
Prevalence Index = B/A = <u>2.35</u>	

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

   2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 5/3	100					Loamy/Clayey	
5-12	10YR 6/1		10YR 4/6		D	M	Loamy/Clayey	Restrictive layer after 12"

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ Rock \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_ 12 \_\_\_\_\_

Hydric Soil Present?    Yes     No \_\_\_\_\_

Remarks:  
 Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-18  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15-20  
 Subregion (LRR or MLRA): LRR N, MLRA 121 Lat: 37.641775 Long: -85.277344 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, eroded, 6 to 12 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 10.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-18

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Quercus michauxii</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>25</u> =Total Cover		
	50% of total cover: <u>13</u>	20% of total cover: <u>5</u>	

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
	_____ =Total Cover		
	50% of total cover: _____	20% of total cover: _____	

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Festuca arundinacea</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Anthriscus caucalis</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>
3. <u>Dactylis glomerata</u>	<u>20</u>	<u>No</u>	<u>FACU</u>
4. <u>Galium aparine</u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5. <u>Allium ursinum</u>	<u>5</u>	<u>No</u>	_____
6. <u>Phleum pratense</u>	<u>2</u>	<u>No</u>	<u>FACU</u>
7. <u>Rumex crispus</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
8. <u>Phytolacca americana</u>	<u>1</u>	<u>No</u>	<u>FACU</u>
9. <u>Carex vulpinoidea</u>	<u>1</u>	<u>No</u>	<u>OBL</u>
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	<u>125</u> =Total Cover		
	50% of total cover: <u>63</u>	20% of total cover: <u>25</u>	

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	_____ =Total Cover		
	50% of total cover: _____	20% of total cover: _____	

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes \_\_\_\_\_    No X

Remarks:  
 Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-19  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MLRA): LRR N Lat: 37.641924 Long: -85.277406 Datum: NAD 83  
 Soil Map Unit Name: Nicholson silt loam, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 10.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>13</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-19

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa trivialis</u>	<u>65</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Festuca arundinacea</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
4. <u>Phleum pratense</u>	<u>2</u>	<u>No</u>	<u>FACU</u>
5. <u>Carex culpinoidea</u>	<u>2</u>	<u>No</u>	_____
6. <u>Ambrosia trifida</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
7. <u>Persicaria lapathifolia</u>	<u>1</u>	<u>No</u>	<u>FACW</u>
8. <u>Bidens frondosa</u>	<u>1</u>	<u>No</u>	<u>FACW</u>
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>64</u> 20% of total cover: <u>26</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>67</u>	x 2 = <u>134</u>
FAC species <u>6</u>	x 3 = <u>18</u>
FACU species <u>52</u>	x 4 = <u>208</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>125</u> (A)	<u>360</u> (B)
Prevalence Index = B/A = <u>2.88</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - X 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Loamy/Clayey	
3-12	10YR 5/2	97	7.5YR 4/6	3	C	PL/M	Loamy/Clayey	
12-18	10YR 5/1	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:  
 Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-20  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15-20  
 Subregion (LRR or MLRA): LRR N Lat: 37.641902 Long: -85.276249 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, eroded, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 11.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Wetland hydrology indicators were not observed.	

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-20

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Festuca arundinacea</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Phleum pratense</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Phytolacca americana</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Dactylis glomerata</u>	<u>20</u>	<u>No</u>	<u>FACU</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> MLRA 136)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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Remarks:  
Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-21  
 Investigator(s): RL, JP Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MLRA): LRR N Lat: 37.641934 Long: -85.276419 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 11.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-21

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Poa trivialis</i>	60	Yes	FACW
2. <i>Glyceria striata</i>	15	No	OBL
3. <i>Festuca arundinacea</i>	10	No	FACU
4. <i>Carex vulpinoidea</i>	5	No	OBL
5. <i>Rumex crispus</i>	5	No	FAC
6. <i>Ambrosia trifida</i>	5	No	FAC
7. <i>Ipomoea</i>	1	No	
8. <i>Solidago canadensis</i>	1	No	FACU
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
102 = Total Cover			
50% of total cover: <u>51</u> 20% of total cover: <u>21</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

   3 - Prevalence Index is ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14								Significantly disturbed
14-18	2.5Y 6/2	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

Soil significantly disturbed due to mixing from 0-14 inches. Hydric soil from 14-18 inches, however still disturbed.



Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-22  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.644054 Long: -85.278498 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 12.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Wetland hydrology indicators were not observed.	

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-22

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer saccharum</u>	75	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. <u>Celtis occidentalis</u>	20	No	FACU	
3. <u>Carya glabra</u>	25	Yes	FACU	
4. <u>Fraxinus americana</u>	5	No	FACU	
5. _____				
6. _____				
7. _____				
	125	=Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>63</u>		20% of total cover: <u>25</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
		=Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: _____		20% of total cover: _____		
<u>Herb Stratum</u> (Plot size: <u>30</u> )				<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
1. <u>Lonicera maackii</u>	30	Yes	UPL	
2. <u>Alliaria petiolata</u>	10	No	FACU	
3. <u>Euonymus fortunei</u>	5	No	UPL	
4. <u>Parthenocissus quinquefolia</u>	2	No	FACU	
5. <u>Ambrosia trifida</u>	1	No	FAC	
6. <u>Symphoricarpos orbiculatus</u>	5	No	FACU	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	53	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
50% of total cover: <u>27</u>		20% of total cover: <u>11</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		=Total Cover		
50% of total cover: _____		20% of total cover: _____		

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> MLRA 136)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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Remarks:  
 Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-23  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.627806 Long: -85.267069 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 12.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1)      _____ True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2)      _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3)      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1)      _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2)      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3)      _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4)      _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-23

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa trivialis</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Glyceria grandis</u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>
3. <u>Rosa multiflora</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
4. <u>Potentilla indica</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5. <u>Campsis radicans</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
<u>81</u> = Total Cover			
50% of total cover: <u>41</u> 20% of total cover: <u>17</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Parthenocissus quinquefolia</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Toxicodendron radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
<u>25</u> = Total Cover			
50% of total cover: <u>13</u> 20% of total cover: <u>5</u>			

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across All Strata: 4 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-18	2.5Y 5/1		7.5YR 4/6		C	M	Loamy/Clayey

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<b>MLRA 136)</b>	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	wetland hydrology must be present,
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)	unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____
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Remarks:  
Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-24  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15-20  
 Subregion (LRR or MLRA): LRR N Lat: 37.625952 Long: -85.268044 Datum: NAD 83  
 Soil Map Unit Name: Sandview silt loam, 2 to 6 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 13.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-24

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Poa pratensis</i>	25	Yes	FACU
2. <i>Microstegium vimineum</i>	20	Yes	FAC
3. <i>Carex grisea</i>	15	No	FACU
4. <i>Agrostis gigantea</i>	10	No	FACW
5. <i>Bromus hordeaceus</i>	5	No	UPL
6. <i>Ambrosia trifida</i>	5	No	FAC
7. <i>Allium ursinum</i>	5	No	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
85 =Total Cover			
50% of total cover: <u>43</u>		20% of total cover: <u>17</u>	

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.



**SOIL**

Sampling Point: DP-24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes \_\_\_\_\_    No X

Remarks:  
 Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-25  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.625984 Long: -85.267955 Datum: NAD 83  
 Soil Map Unit Name: Sandview silt loam, 2 to 6 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 13.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply)	<u>Secondary Indicators</u> (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1)      _____ True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2)      _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3)      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1)      _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2)      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3)      _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4)      _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-25

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Typha angustifolia</i></u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>
2. <u><i>Panicum longisetum</i></u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>
3. <u><i>Conium maculatum</i></u>	<u>10</u>	<u>No</u>	<u>FACW</u>
4. <u><i>Ambrosia artemisiifolia</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5. <u><i>Scirpus atrovirens</i></u>	<u>5</u>	<u>No</u>	<u>OBL</u>
6. <u><i>Solanum carolinense</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>
7. <u><i>Bromus hordeaceus</i></u>	<u>1</u>	<u>No</u>	<u>UPL</u>
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>51</u> 20% of total cover: <u>21</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	2.5Y 5/3	80	7.5YR 5/6	20	C	PL/M	Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Mucky Mineral (F1) **(MLRA 136)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 122, 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147, 148)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Concrete slab  
 Depth (inches): 5

Hydric Soil Present? Yes  No

Remarks:  
 Restrictive layer at 5 inches. Concrete slab throughout entire wetland.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-26  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.627813 Long: -85.267016 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, eroded, 12 to 20 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 14.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
--	---

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

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-26

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa pratensis</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Acalypha virginica</u>	<u>20</u>	<u>No</u>	<u>FACU</u>
3. <u>Solanum carolinense</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>53</u> 20% of total cover: <u>21</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 5/3	100					Loamy/Clayey	
3-18	10YR 5/4	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes \_\_\_\_\_    No X

Remarks:  
 Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-27  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.62780292 Long: -85.2670659 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FaD2) NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 14.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) _____ True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) _____ Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) _____ Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) _____ Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) _____ <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-27

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex frankii</u>	<u>50</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Poa pratensis</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Scirpus atrovirens</u>	<u>25</u>	<u>No</u>	<u>OBL</u>
4. <u>Typha latifolia</u>	<u>20</u>	<u>No</u>	<u>OBL</u>
5. <u>Epilobium coloratum</u>	<u>10</u>	<u>No</u>	<u>FACW</u>
6. <u>Mumulus ringens</u>	<u>5</u>	<u>No</u>	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	<u>145</u> = Total Cover		
50% of total cover: <u>73</u>	20% of total cover: <u>29</u>		

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>95</u>	x 1 = <u>95</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>140</u> (A)	<u>255</u> (B)
Prevalence Index = B/A = <u>1.82</u>	

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

   2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 5/2	85	7.5YR 4/6	15	D	PL/M	Loamy/Clayey	
2-18	10YR 5/1	80	7.5YR 4/6	15	D	PL/M	Loamy/Clayey	
			10YR 5/6	5	C	PL/M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:  
 Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-28  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.626778 Long: -85.268710 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay, severely eroded, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 15.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
--	---

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

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-28

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa pratensis</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Festuca arundinacea</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Solanum carolinense</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Cajanus cajan</u>	<u>5</u>	<u>No</u>	<u>UPL</u>
5. <u>Imperata cylindrica</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>28</u> 20% of total cover: <u>11</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 4/3	100					Loamy/Clayey	
5-18	10YR 5/4	100					Loamy/Clayey	Significantly disturbed

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes \_\_\_\_\_    No X

Remarks:  
 Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-29  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.626813 Long: -85.268619 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 15.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) <u>X</u> Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) <u>X</u> Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-29

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex frankii</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Agrostis gigantea</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
3. <u>Festuca arundinacea</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Carex vulpinoidea</u>	<u>5</u>	<u>No</u>	<u>OBL</u>
5. <u>Eleocharis palustris</u>	<u>5</u>	<u>No</u>	<u>OBL</u>
6. <u>Mumulus ringens</u>	<u>5</u>	<u>No</u>	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>35</u> 20% of total cover: <u>14</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Toxicodendron radicans</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>			

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across All Strata: 4 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/1	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:  
 Hydric soils indicators were observed.



Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-30  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR N Lat: 37.626778 Long: -85.268710 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay, severely eroded, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 16.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-30

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
6.	_____	_____	_____	
7.	_____	_____	_____	
	_____ =Total Cover			
	50% of total cover: _____	20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30</u> )				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
6.	_____	_____	_____	
7.	_____	_____	_____	
8.	_____	_____	_____	
9.	_____	_____	_____	
	_____ =Total Cover			
	50% of total cover: _____	20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30</u> )				
1.	<u><i>Vicia villosa</i></u>	<u>65</u>	<u>Yes</u>	<u>UPL</u>
2.	<u><i>Poa pratensis</i></u>	<u>15</u>	<u>No</u>	<u>FACU</u>
3.	<u><i>Imperata cylindrica</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>
4.	<u><i>Jacobaea vulgaris</i></u>	<u>5</u>	<u>No</u>	<u>UPL</u>
5.	<u><i>Allium ursinum</i></u>	<u>5</u>	<u>No</u>	_____
6.	<u><i>Solanum carolinense</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>
7.	_____	_____	_____	
8.	_____	_____	_____	
9.	_____	_____	_____	
10.	_____	_____	_____	
11.	_____	_____	_____	
	_____ 100 =Total Cover			
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
	_____ =Total Cover			
	50% of total cover: _____	20% of total cover: _____		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> (outside MLRA 127, 147, 148)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> Stripped Matrix (S6)	wetland hydrology must be present,
<input type="checkbox"/> Dark Surface (S7)	unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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Remarks:  
Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-31  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR N Lat: 37.628843 Long: -85.274281 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 16.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-31

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____			20% of total cover: _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____			20% of total cover: _____	
<b>Herb Stratum</b> (Plot size: <u>30</u> )				
1. <u>Poa pratensis</u>	35	Yes	FACU	
2. <u>Glyceria striata</u>	25	Yes	OBL	
3. <u>Euonymus fortunei</u>	15	No	UPL	
4. <u>Hydrophyllum virginianum</u>	5	No	FAC	
5. <u>Symphoricarpos orbiculatus</u>	5	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ 85 = Total Cover				
50% of total cover: <u>43</u>			20% of total cover: <u>17</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				
1. <u>Campsis radicans</u>	5	Yes	FAC	
2. <u>Toxicodendron radicans</u>	5	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ 10 = Total Cover				
50% of total cover: <u>5</u>			20% of total cover: <u>2</u>	

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**    Yes     No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 4/2	90	7.5YR 4/6	10	D	PL/M	Loamy/Clayey	
1-2	10YR 5/1	90	7.5YR 4/6	10	D	PL/M	Loamy/Clayey	
2-12	2.5Y 5/3	75	10YR 5/6	25	C	M	Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

Soil is disturbed due to mixing.

Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-32  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10-15  
 Subregion (LRR or MLRA): LRR N Lat: 37.622230 Long: -85.267132 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 11.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-32

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____		20% of total cover: _____		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<u>Herb Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Digitaria ciliaris</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Trifolium hybridum</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Scirpus pendulus</u>	<u>10</u>	<u>No</u>	<u>OBL</u>	
4. <u>Trifolium campestre</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
5. <u>Scirpus atrovirens</u>	<u>5</u>	<u>No</u>	<u>OBL</u>	
6. <u>Festuca arundinacea</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
7. <u>Agrostis gigantea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
8. <u>Daucus carota</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Hydrophytic Vegetation Present?</b> Yes _____      No <u>X</u>				

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation was not present.



**SOIL**

Sampling Point: DP-32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> MLRA 136)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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Remarks:  
Hydric soils indicators were not observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-33  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MLRA): LRR N Lat: 37.622707 Long: -85.268278 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI classification: R4SBC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 17.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) _____ True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) _____ Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) _____ Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) _____ Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) _____ <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) _____	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-33

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Festuca arundinacea</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Glyceria striata</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>
3. <u>Scirpus pendulus</u>	<u>10</u>	<u>No</u>	<u>OBL</u>
4. <u>Carex vulpinoidea</u>	<u>10</u>	<u>No</u>	<u>OBL</u>
5. <u>Ranunculus flammula</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
6. <u>Impatiens capensis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	<u>100</u> = Total Cover		
50% of total cover: <u>50</u>	20% of total cover: <u>20</u>		

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	_____ = Total Cover		
50% of total cover: _____	20% of total cover: _____		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>260</u> (B)
Prevalence Index = B/A = <u>2.60</u>	

**Hydrophytic Vegetation Indicators:**

   1 - Rapid Test for Hydrophytic Vegetation

   2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0<sup>1</sup>

   4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes X No   

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-33

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 5/3	100					Loamy/Clayey	
5-12	10YR 5/2	95	10YR 5/8	5	C	M	Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:  
 Soil is disturbed due to mixing.  
 Hydric soils indicators were observed.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 5/31/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-34  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Roadside Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR N Lat: 37.634250 Long: -85.262524 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, eroded NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Plot is representative of upland habitat adjacent to PEM Wetland 18.  A soil sample was not collected as there was no subsurface clearance in the area.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Wetland hydrology indicators were not observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-34

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Dipsacus fullonum</i>	15	No	FACU
2. <i>Festuca arundinacea</i>	20	Yes	FACU
3. <i>Poa pratensis</i>	25	Yes	FACU
4. <i>Trifolium pratense</i>	10	No	FACU
5. <i>Lonicera japonica</i>	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
80 = Total Cover			
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>			

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_ 2 - Dominance Test is >50%
  - \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation was not present.

**SOIL**

Sampling Point: DP-34

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> MLRA 136)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____ Depth (inches): _____	

Remarks:  
No soil sample was collected due to no subsurface clearance in the area.

Project/Site: Frontier Solar Site City/County: Washington and Marion Counties Sampling Date: 6/2/22  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-35  
 Investigator(s): J. Parsons Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MLRA): LRR N Lat: 37.634343 Long: -85.262366 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, eroded NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: Plot is representative of PEM Wetland 18.  Soil sample was not collected due to no subsurface clearance in the area.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) <u>X</u> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
--	---

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

Remarks:  
 Primary wetland hydrology indicators were present.



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP-35

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____ = Total Cover		
	50% of total cover: _____	20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer negundo</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
	_____ = Total Cover		
	50% of total cover: <u>3</u>	20% of total cover: <u>1</u>	

Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lysimachia nummularia</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Scirpus pendulus</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>
3. <u>Carex atherodes</u>	<u>10</u>	<u>No</u>	<u>OBL</u>
4. <u>Carex vulpinoidea</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>
5. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6. <u>Poa pratensis</u>	<u>10</u>	<u>No</u>	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	_____ = Total Cover		
	50% of total cover: <u>45</u>	20% of total cover: <u>18</u>	

Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	_____ = Total Cover		
	50% of total cover: _____	20% of total cover: _____	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

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

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

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

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

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
Hydrophytic vegetation is present.

**SOIL**

Sampling Point: DP-35

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> (outside MLRA 127, 147, 148)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> Stripped Matrix (S6)	wetland hydrology must be present,
<input type="checkbox"/> Dark Surface (S7)	unless disturbed or problematic.
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)	

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____
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Remarks:  
 No soil sample was collected due to no subsurface clearance in the area.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/3/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: UPL-19  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.63459766 Long: -85.26304662 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
--	--

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to PEM Wetland 19.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
**Wetland hydrology indicators were not observed.**

**VEGETATION** - Use scientific names of plants

Sampling Point: UPL-19

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. <u>Juglans nigra</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)																
2. <u>Maclura pomifera</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
			<u>80</u>	= Total Cover																
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1. <u>Juglans nigra</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </tbody> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
2. <u>Celtis occidentalis</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Aesculus flava</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
			<u>40</u>	= Total Cover																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <u>Verbesina alternifolia</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Conium maculatum</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Poa pratensis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>Galium circaezans</u>	<u>10</u>	<u>No</u>	<u>UPL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
			<u>70</u>	= Total Cover																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
			_____	= Total Cover																
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Hydrophytic vegetation was not present.																				

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	2.5Y 3/5	100					SiCL	
1-14	10YR 4/4	60					SiCL	
	10YR 4/6	40						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 6/3/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: WTL-19  
 Investigator(s): R. LaPosa Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.63464709 Long: -85.26286483 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

Plot is representative of PEM Wetland 19.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____		
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>			
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>			

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

Remarks:

Primary wetland hydrology indicators were present.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Cornus drummondii	15	Yes	FAC
2.	Salix nigra	5	Yes	OBL
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		20 _____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Typha angustifolia	20	Yes	OBL
2.	Carex lurida	10	Yes	OBL
3.	Poa pratensis	10	Yes	FACU
4.	Vernonia noveboracensis	10	Yes	FACW
5.	Phleum pratense	5	No	FACU
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		55 _____ = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	2.5 4/1	90	10YR 4/6	10	C	M, PL	SIL	
6+	Restriction							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Bedrock  
 Depth (inches): 6

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-38  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64307099 Long: -85.26908558 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat adjacent to Ephemeral Stream 34. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

Wetland hydrology indicators were not present.

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B)	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B)																			
Prevalence Index = B/A = _____																				
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
9.	_____	_____	_____																	
10.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Poa pratensis</u>	<u>75</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Schedonorus pratensis</u>	<u>25</u>	<u>YES</u>		<u>FACU</u>															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____		_____															
7.	_____	_____	_____		_____															
8.	_____	_____	_____		_____															
9.	_____	_____	_____		_____															
10.	_____	_____	_____		_____															
11.	_____	_____	_____		_____															
12.	_____	_____	_____	_____																
			_____ = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Hydrophytic Vegetation Present?</b>				Yes _____ No <input checked="" type="checkbox"/>																

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

**SOIL**

**Sampling Point:**

DP-38

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-39  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.6527444 Long: -85.26499565 Datum: NAD 83  
 Soil Map Unit Name: Newark silt loam, frequently flooded (Ne) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat in an agricultural field. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____		Yes _____ No <u>✓</u>
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>          </u></td> <td>x 1 = <u>          </u></td> </tr> <tr> <td>FACW species <u>          </u></td> <td>x 2 = <u>          </u></td> </tr> <tr> <td>FAC species <u>          </u></td> <td>x 3 = <u>          </u></td> </tr> <tr> <td>FACU species <u>          </u></td> <td>x 4 = <u>          </u></td> </tr> <tr> <td>UPL species <u>          </u></td> <td>x 5 = <u>          </u></td> </tr> <tr> <td>Column Totals: <u>          </u></td> <td>(A) <u>          </u> (B) <u>          </u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>          </u></td> </tr> </table>	Total % Cover of	Multiply by:	OBL species <u>          </u>	x 1 = <u>          </u>	FACW species <u>          </u>	x 2 = <u>          </u>	FAC species <u>          </u>	x 3 = <u>          </u>	FACU species <u>          </u>	x 4 = <u>          </u>	UPL species <u>          </u>	x 5 = <u>          </u>	Column Totals: <u>          </u>	(A) <u>          </u> (B) <u>          </u>	Prevalence Index = B/A = <u>          </u>	
Total % Cover of	Multiply by:																			
OBL species <u>          </u>	x 1 = <u>          </u>																			
FACW species <u>          </u>	x 2 = <u>          </u>																			
FAC species <u>          </u>	x 3 = <u>          </u>																			
FACU species <u>          </u>	x 4 = <u>          </u>																			
UPL species <u>          </u>	x 5 = <u>          </u>																			
Column Totals: <u>          </u>	(A) <u>          </u> (B) <u>          </u>																			
Prevalence Index = B/A = <u>          </u>																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Andropogon virginicus</u>	<u>40</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Poa pratensis</u>	<u>40</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Festuca pratensis</u>	<u>20</u>	<u>YES</u>		<u>UPL</u>															
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
			100 = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>          </u> No <input checked="" type="checkbox"/>																
Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.																				

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	80	10YR 6/2	20	D	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-40  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65256498 Long: -85.26478202 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat in a drainage area. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-40

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Sorghum halepense</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Festuca pratensis</u>	<u>20</u>	<u>YES</u>	<u>UPL</u>
3.	<u>Xanthium strumarium</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
4.	<u>Andropogon virginicus</u>	<u>15</u>	<u>NO</u>	<u>FACU</u>
5.	<u>Cirsium vulgare</u>	<u>15</u>	<u>NO</u>	<u>FACU</u>
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		_____ = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	80	10YR 6/2	20	D	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-41  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65472663 Long: -85.26611053 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology Yes \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No \_\_\_\_\_ naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

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

**Plot located in wooded hedgerow adjacent to Perennial Stream 9.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:

**No wetland hydrology present.**

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Schedonorus pratensis</u>	<u>30</u>	<u>YES</u> <u>FACU</u>
2.	<u>Phytolacca americana</u>	<u>20</u>	<u>YES</u> <u>FACU</u>
3.	<u>Symphoricarpos orbiculatus</u>	<u>20</u>	<u>YES</u> <u>FACU</u>
4.	<u>Sorghum halepense</u>	<u>15</u>	<u>NO</u> <u>FACU</u>
5.	<u>Verbesina alternifolia</u>	<u>15</u>	<u>NO</u> <u>FAC</u>
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)  
**Hydrophytic vegetation indicators were not observed.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (LRR N)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F17)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-42  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65580629 Long: -85.26263357 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology Yes \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No \_\_\_\_\_ naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

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

Plot representative of upland habitat and located in a swale upslope of Open Water (PUB) 19.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>

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

Remarks:

No wetland hydrology present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-42

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Schedonorus pratensis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Xanthium strumarium</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>
3.	<u>Asclepias syriaca</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
4.	<u>Sorghum halepense</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>
5.	<u>Verbesina alternifolia</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>
6.	<u>Solidago sp.</u>	<u>20</u>	<u>YES</u>	<u>N/A</u>
7.	<u>Bidens frondosa</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>
8.				
9.				
10.				
11.				
12.				
		_____ = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)  
**Hydrophytic vegetation indicators were not observed.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/2	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?                      Yes \_\_\_\_\_                      No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-43  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65541552 Long: -85.26263357 Datum: NAD 83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes (LwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot representative of upland habitat and located upslope of Open Water (PUB) 19.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

No wetland hydrology present.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-43

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Schedonorus pratensis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Sorghum halepense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Verbesina alternifolia</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
4.	<u>Andropogon virginicus</u>	<u>15</u>	<u>NO</u>	<u>FACU</u>
5.	<u>Solidago sp.</u>	<u>15</u>	<u>NO</u>	<u>N/A</u>
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)  
**Hydrophytic vegetation indicators were not observed.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F17)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)</p> <p><input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)</p> <p><input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-44  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.6545514629 Long: -85.2628174486 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes (FoC2) NWI Classification: PUB

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot representative of upland habitat and located in a previous NWI wetland.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
**No wetland hydrology present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-44

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Phytolacca americana</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Verbesina alternifolia</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
3.	<u>Xanthium strumarium</u>	<u>15</u>	<u>NO</u>	<u>FAC</u>
4.	<u>Sorghum halepense</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>85</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)  
**Hydrophytic vegetation indicators were not observed.**

**SOIL**

**Sampling Point:**

DP-44

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/2	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F17)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)</p> <p><input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)</p> <p><input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-45  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65638199 Long: -85.2598258425 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes (FoC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot representative of upland habitat located in an herbaceous meadow.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

No wetland hydrology present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-45

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Andropogon virginicus</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Verbesina alternifolia</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
3.	<u>Bidens frondosa</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>
4.	<u>Sorghum halepense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>90</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)  
**Hydrophytic vegetation indicators were not observed.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
 Hydric soils indicators were not observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-46  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.65306705 Long: -85.25709188 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat in a drainage area adjacent to Open Water 21. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-46

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Dichanthelium clandestinum	25	YES	FAC
2.	Sorghum halepense	20	YES	FACU
3.	Andropogon virginicus	10	YES	FACU
4.	Xanthium strumarium	10	YES	FAC
5.	Bidens frondosa	10	YES	FACW
6.	Panicum virgatum	10	YES	FAC
7.	Verbesina alternifolia	10	YES	FAC
8.	Poa pratensis	5	NO	FACU
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71.4 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-47  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.65038724 Long: -85.25677081 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat in a drainage area. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-47

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Poa pratensis</u>	<u>100</u>	<u>YES</u> <u>FACU</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
---	---

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-49  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65169476 Long: -85.25531253 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

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

Plot is representative of upland habitat in a drainage area. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>

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

Remarks:

Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-49

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Dichanthelium clandestinum	<u>20</u>	<u>YES</u>	<u>FAC</u>
2.	Festuca pratensis	<u>20</u>	<u>YES</u>	<u>UPL</u>
3.	Andropogon virginicus	<u>15</u>	<u>YES</u>	<u>FACU</u>
4.	Symphotrichum pilosum	<u>15</u>	<u>YES</u>	<u>FAC</u>
5.	Xanthium strumarium	<u>10</u>	<u>YES</u>	<u>FAC</u>
6.	Verbesina alternifolia	<u>10</u>	<u>YES</u>	<u>FAC</u>
7.	Phytolacca americana	<u>10</u>	<u>YES</u>	<u>FACU</u>
8.				
9.				
10.				
11.				
12.				
		<u>100</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-50  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65223006 Long: -85.25979144 Datum: NAD 83  
 Soil Map Unit Name: Water (W) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat. Aerial imagery showed this area as a pond. Field surveys confirmed the pond had been drained. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____		Yes _____ No <u>✓</u>
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-50

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Poa pratensis</u>	<u>100</u>	<u>YES</u> <u>FACU</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

No hydrophytic vegetation indicators were present.

**SOIL**

**Sampling Point:**

DP-50

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-51  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65158127 Long: -85.26242661 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat in a drainage area. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-51

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
			_____ = Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
			_____ = Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Poa pratensis</u>	<u>100</u>	<u>YES</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
			_____ = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
			_____ = Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.) <b>No hydrophytic vegetation indicators were present.</b>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?      Yes \_\_\_\_\_      No

**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-52  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65077394 Long: -85.2627748 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u> No _____	
Wetland Hydrology Present?	Yes <u>✓</u> No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 21. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____		Yes <u>✓</u> No _____
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes <u>✓</u> No _____ Depth (inches): <u>0</u>		

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

Remarks:  
 Primary wetland hydrology indicators were present.



**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-52

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Typha latifolia</u> 45	<u>YES</u>	<u>OBL</u>
2.	<u>Phalaris arundinacea</u> 25	<u>YES</u>	<u>FACW</u>
3.	<u>Solidago gigantea</u> 10	<u>NO</u>	<u>FACW</u>
4.	<u>Juncus effusus</u> 10	<u>NO</u>	<u>FACW</u>
5.	<u>Symphyotrichum pilosum</u> 10	<u>NO</u>	<u>FAC</u>
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	100	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/1	75	10yr 5/6	25	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/13/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-53  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.60978922 Long: -85.26323591 Datum: NAD 83  
 Soil Map Unit Name: Faywood-Cynthiana complex, 20 to 30 percent slopes, eroded very rocky (FcE2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Intermittent Stream 23. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-53

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)																
1.	<u>Acer rubrum</u>	<u>25</u>	<u>YES</u>		<u>FAC</u>															
2.	<u>Prunus serotina</u>	<u>20</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Quercus bicolor</u>	<u>15</u>	<u>YES</u>		<u>FACW</u>															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____		_____															
7.	_____	_____	_____		_____															
8.	_____	_____	_____		_____															
	<u>60</u>	<u>= Total Cover</u>																		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.	<u>Symphoricarpos orbiculatus</u>	<u>5</u>	<u>YES</u>		<u>FACU</u>															
2.	_____	_____	_____	_____																
3.	_____	_____	_____	_____																
4.	_____	_____	_____	_____																
5.	_____	_____	_____	_____																
6.	_____	_____	_____	_____																
7.	_____	_____	_____	_____																
8.	_____	_____	_____	_____																
9.	_____	_____	_____	_____																
10.	_____	_____	_____	_____																
	<u>5</u>	<u>= Total Cover</u>																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Poa pratensis</u>	<u>50</u>	<u>YES</u>		<u>FACU</u>															
2.	_____	_____	_____		_____															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____		_____															
7.	_____	_____	_____		_____															
8.	_____	_____	_____		_____															
9.	_____	_____	_____		_____															
10.	_____	_____	_____		_____															
11.	_____	_____	_____		_____															
12.	_____	_____	_____	_____																
	<u>50</u>	<u>= Total Cover</u>																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.	_____	_____	_____		_____															
2.	_____	_____	_____		_____															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____	_____																
	_____	<u>= Total Cover</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																				

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/1	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-54  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65389984 Long: -85.2687778 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 20. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
<u>✓</u> Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes <u>✓</u> No _____	Depth (inches): <u>2</u>	Yes <u>✓</u> No _____
Water Table Present? Yes _____ No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <u>✓</u> No _____	Depth (inches): <u>0</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-54

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Juncus effusus	35	YES	FACW
2.	Mentha arvensis	35	YES	FACW
3.	Carex lurida	30	YES	OBL
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- X 1 - Rapid Test for Hydrophytic Vegetation
  - X 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/1	75	10YR 5/1	25	D	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No \_\_\_\_\_

**Remarks:**

Hydric soils indicators were observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-55  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63325735 Long: -85.20671335 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 22, a PEM fringe wetland adjacent to Open Water 37. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal. Wetland has been heavily impacted by COWS.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input checked="" type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u>	Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-55

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Typha latifolia	25	YES	OBL
2.	Ludwigia alternifolia	25	YES	FACW
3.	Phleum pratense	20	YES	FACU
4.	Asclepias incarnata	10	NO	OBL
5.	Solanum carolinense	10	NO	FACU
6.	Cyperus esculentus	5	NO	FACW
7.	Juncus acuminatus	5	NO	OBL
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes ✓ No \_\_\_\_\_

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 4/2	100					SiCL	
5-18	10YR 5/1	95	7.5YR 5/6	5	C	M+PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-56  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63338133 Long: -85.20668643 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Wetland 22 and Wetland 23. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-56

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Poa pratensis</u> 30	<u>YES</u>	<u>FACU</u>
2.	<u>Andropogon virginicus</u> 30	<u>YES</u>	<u>FACU</u>
3.	<u>Schedonorus pratensis</u> 25	<u>YES</u>	<u>FACU</u>
4.	<u>Phleum pratense</u> 10	<u>NO</u>	<u>FACU</u>
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	95	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 5/3	100					SiCL	
5-18	10YR 5/3	70					SiCL	
	10YR 6/1	30						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-57  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63328546 Long: -85.20716650 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 23, a PSS fringe wetland adjacent to Open Water 37. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>3</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

Tree Stratum (Plot Size: 30 ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
	_____	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15-ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	25	YES	OBL
2. Platanus occidentalis	20	YES	FACW
3. Liquidambar styraciflua	10	YES	FAC
4. Cornus florida	5	NO	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
	60	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. Leersia oryzoides	25	YES	OBL
2. Juncus effusus	25	YES	FACW
3. Juncus acuminatus	20	YES	OBL
4. Bidens frondosa	15	YES	FACW
5. Typha latifolia	10	NO	OBL
6. Carex lurida	5	NO	OBL
7. Galium tinctorium	5	NO	OBL
8. Cyperus esculentus	5	NO	FACW
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	110	= Total Cover	

Woody Vine Stratum (Plot Size: 30-ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	100					SiCL	
3-18	10YR 5/1	95	7.5YR 5/6	5	C	M+PL	SiC	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**  
 Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-58  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63740117 Long: -85.21460305 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat located in a drainage area adjacent to Intermittent Stream 36. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

Wetland hydrology indicators were not present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>25</u>	<u>YES</u>	<u>FAC</u>
3.	<u>20</u>	<u>NO</u>	<u>UPL</u>
4.	<u>15</u>	<u>NO</u>	<u>FACU</u>
5.	<u>10</u>	<u>NO</u>	<u>FACU</u>
6.	<u>5</u>	<u>NO</u>	<u>FACU</u>
7.			
8.			
9.			
10.			
11.			
12.			
	<u>105</u>	= Total Cover	

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species <u>          </u>	x 1 = <u>          </u>
FACW species <u>          </u>	x 2 = <u>          </u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>105</u> (A)	<u>415</u> (B)
Prevalence Index = B/A = <u>3.95</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136,122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127,147)**

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) **(LRR N)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 147, 148)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-59  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63819761 Long: -85.21729183 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 24. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<u>✓</u> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present?	Yes <u>✓</u> No _____	Yes <u>✓</u> No _____
Water Table Present?	Yes _____ No <u>✓</u>	
Saturation Present? (includes capillary fringe)	Yes <u>✓</u> No _____	
Depth (inches):	<1	
Depth (inches):	_____	
Depth (inches):	0	

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

Remarks:  
**Primary wetland hydrology indicators were present.**

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.	Salix nigra	10	YES	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		10 _____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	Juncus effusus	40	YES	FACW
2.	Leersia oryzoides	25	YES	OBL
3.	Scirpus atrovirens	10	NO	OBL
4.	Typha latifolia	10	NO	OBL
5.	Carex lurida	5	NO	OBL
6.	Juncus acuminatus	5	NO	OBL
7.	Xanthium strumarium	5	NO	FAC
8.	Symphotrichum pilosum	5	NO	FAC
9.				
10.				
11.				
12.				
		105 _____ = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	7.5YR 5/2	85	7.5YR 4/6	15	C	M+PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-60  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63783146 Long: -85.21731803 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
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Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to Wetland 24. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>
---	---

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

Remarks:  
**Wetland hydrology indicators were not present.**



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-60

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Festuca pratensis</u>	<u>25</u>	<u>YES</u>	<u>UPL</u>
2.	<u>Phleum pratense</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Cirsium vulgare</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>
4.	<u>Xanthium strumarium</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>
5.	<u>Ludwigia alternifolia</u>	<u>5</u>	<u>YES</u>	<u>FACW</u>
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>75</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-61  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.62892186 Long: -85.21163840 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to Open Water 35. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____		Yes _____ No <u>✓</u>
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____		

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

Remarks:  
**Wetland hydrology indicators were not present.**

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B)	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B)																			
Prevalence Index = B/A = _____																				
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
9.	_____	_____	_____																	
10.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Festuca pratensis</u>	<u>75</u>	<u>YES</u>		<u>UPL</u>															
2.	<u>Poa pratensis</u>	<u>25</u>	<u>YES</u>		<u>FACU</u>															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____		_____															
7.	_____	_____	_____		_____															
8.	_____	_____	_____		_____															
9.	_____	_____	_____		_____															
10.	_____	_____	_____		_____															
11.	_____	_____	_____		_____															
12.	_____	_____	_____	_____																
			_____ = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
			_____ = Total Cover																	

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-62  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.62854643 Long: -85.21766903 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat located in a drainage area adjacent to Perennial Stream 10. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-62

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
			= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Carex lurida	25	YES	OBL
2.	Poa pratensis	20	YES	FACU
3.	Bidens frondosa	15	YES	FACW
4.	Juncus effusus	15	YES	FACW
5.	Phleum pratense	10	NO	FACU
6.	Dipsacus fullonum	10	NO	FACU
7.	Xanthium strumarium	5	NO	FAC
8.				
9.				
10.				
11.				
12.				
		100	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - x   2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes   ✓   No       

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 5/3	100					SiCL	Rock throughout, restrictive rock layer at 6 inches
6+	Rock							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Rock

Depth (inches): 6

**Hydric Soil Present?**

Yes          No   ✓  

**Remarks:**

Hydric soils indicators were not observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-63  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63094895 Long: -85.21768473 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Perennial Stream 10. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 One secondary wetland indicator was observed. However, criteria for meeting the presence of wetland hydrology was not observed.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-63

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Poa pratensis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Phleum pratense</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Carex sp.</u>	<u>30</u>	<u>YES</u>	<u>N/A</u>
4.	<u>Juncus effusus</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>
5.	<u>Bidens frondosa</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		_____ = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/3	100					SiCL	Rock throughout, restrictive rock layer at 6 inches

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Rock  
Depth (inches): 6

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-64  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.63082947 Long: -85.21667253 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes, eroded (FaC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes _____	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 25. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal. Soils are heavily impacted by cows.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present?	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		Yes <u>✓</u>

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

Remarks:  
**One secondary wetland indicator was observed. Wetland hydrology is assumed present since delineation was conducted during a drier than normal period.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-64

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Carex sp.	60	YES	N/A
2.	Juncus effusus	20	YES	FACW
3.	Bidens frondosa	15	NO	FACW
4.	Andropogon virginicus	5	NO	FACU
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		100 = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

**SOIL**

**Sampling Point:**

DP-64

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No \_\_\_\_\_

**Remarks:**

Soils are heavily impacted by cows. No soil samples were recorded.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-65  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.63087781 Long: -85.21669179 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes, eroded (FaC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Wetland 25. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-65

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
			= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Poa pratensis	40	YES	FACU
2.	Plantago lanceolata	20	YES	UPL
3.	Taraxacum officinale	20	YES	FACU
4.	Xanthium strumarium	10	NO	FAC
5.	Trifolium pratense	10	NO	FACU
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		100	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

No hydrophytic vegetation indicators were present.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/3	100					SiCL	
4-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-66  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63812589 Long: -85.22933938 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Perennial Stream 10. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present?	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		Yes _____

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-66

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Setaria faberi</u>	<u>40</u>	<u>YES</u>	<u>UPL</u>
2.	<u>Symphotrichum pilosum</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>
3.	<u>Carex lurida</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>
4.	<u>Phleum pratense</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>90</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species _____	x 2 = _____
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>40</u>	x 5 = <u>200</u>
Column Totals: <u>90</u> (A)	<u>340</u> (B)

Prevalence Index = B/A = 3.77

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 5/3	100					SiCL	Restrictive rock layer at 7 inches
7+	Restrictive rock							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Rock

Depth (inches): 7

**Hydric Soil Present?**                      Yes \_\_\_\_\_ No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-67  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63504275 Long: -85.23082274 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 26 within the riparian zone of Intermittent Stream 34. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes <u>✓</u> No _____ Depth (inches): <u>2</u>		Yes <u>✓</u> No _____
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____		

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

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-67

Tree Stratum (Plot Size: 30 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: 15-ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	15	YES	OBL
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		15 = Total Cover		
Herb Stratum (Plot Size: 5 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Typha latifolia	30	YES	OBL
2.	Scirpus atrovirens	20	YES	OBL
3.	Juncus acuminatus	10	NO	OBL
4.	Eupatorium capillifolium	10	NO	FACU
5.	Xanthium strumarium	5	NO	FAC
6.	Ludwigia alternifolia	5	NO	FACW
7.	Symphotrichum pilosum	5	NO	FAC
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		85 = Total Cover		
Woody Vine Stratum (Plot Size: 30-ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 5/3	100					SiCL	
5-18	10YR 5/2	95	7.5YR 6/6	5	C	M+PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-68  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63500623 Long: -85.23092683 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Wetland 26 and Ephemeral Stream 46. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-68

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Sorghum halepense</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Andropogon virginicus</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Symphotrichum pilosum</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>
4.	<u>Xanthium strumarium</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>
5.	<u>Rumex crispus</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>85</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 5/3	100					SiCL	
5-18	10YR 5/2	95	7.5YR 6/6	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-69  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63422218 Long: -85.23081312 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 27 within the riparian zone of Intermittent Stream 34. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes <u>✓</u> No _____
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <u>✓</u>	No _____	Depth (inches): <u>0</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-69

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15-ft. radius</u> )				
1.	Salix nigra	10	YES	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		10 _____ = Total Cover		
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )				
1.	Elymus virginicus	30	YES	FACW
2.	Microstegium vimineum	25	YES	FAC
3.	Typha latifolia	20	YES	OBL
4.	Setaria faberi	15	NO	UPL
5.	Ludwigia alternifolia	5	NO	FACW
6.	Scirpus atrovirens	5	NO	OBL
7.	Eleocharis obtusa	5	NO	OBL
8.	Solidago gigantea	5	NO	FACW
9.	Carex lurida	5	NO	OBL
10.	Symphyotrichum pilosum	5	NO	FAC
11.				
12.				
		120 _____ = Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

**SOIL**

**Sampling Point:**

DP-69

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 5/3	100					SiCL	
2-18	10YR 5/2	95	7.5YR 6/6	5	C	M+PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP- 70  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.633305 Long: -85.235527 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat in a forested area in the corner of the project boundary. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____		Yes _____ No <u>✓</u>
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-70

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. <u>Carya ovata</u>	<u>50</u>	<u>YES</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>12.5</u> (A/B)																
2. <u>Acer saccharum</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>65</u>	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1. <u>Carya ovata</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Acer saccharum</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>																	
4. <u>Juniperus virginiana</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	<u>65</u>	= Total Cover																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <u>Euonymus fortunei</u>	<u>40</u>	<u>YES</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phytolacca americana</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Symphoricarpos orbiculatus</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>																	
4. <u>Geum canadense</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>95</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	= Total Cover																		
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					SIL	
3-18	10YR 5/3	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
Hydric soils indicators were not observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-71  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63406303 Long: -85.23087887 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PSS Wetland 28 within the riparian zone of Intermittent Stream 34. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<u>_____</u> Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> True Aquatic Plants (B14)	<u>_____</u> Sparsely Vegetated Concave Surface (B8)
<u>✓</u> High Water Table (A2)	<u>_____</u> Hydrogen Sulfide Odor (C1)	<u>_____</u> Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	<u>✓</u> Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Moss Trim Lines (B18)
<u>_____</u> Water Marks (B1)	<u>_____</u> Presence of Reduced Iron (C4)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Recent Iron Reduction Tiled Soils (C6)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Thin Muck Surface (C7)	<u>_____</u> Saturation Visible on Aerial Imagery (C9)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Other (Explain in Remarks)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Iron Deposits (B5)		<u>_____</u> Geomorphic Position (D2)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)		<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Water-Stained Leaves (B9)		<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Aquatic Fauna (B13)		<u>_____</u> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <u>✓</u> No _____
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes <u>✓</u>	No _____	Depth (inches): <u>6</u>	
Saturation Present? (includes capillary fringe)	Yes <u>✓</u>	No _____	Depth (inches): <u>0</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-71

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	50	YES	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		50 _____ = Total Cover		
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Microstegium vimineum	30	YES	FAC
2.	Elymus virginicus	20	YES	FACW
3.	Carex lurida	15	YES	OBL
4.	Symphotrichum pilosum	10	NO	FAC
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		75 _____ = Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 5/3	100					SiCL	
3-18	10YR 5/2	95	7.5YR 6/6	5	C	M+PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-72  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63404656 Long: -85.23095110 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat adjacent to Wetland 27 and Wetland 28. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>					Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		Yes _____ No <u>✓</u>

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-72

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Sorghum halepense</u>	<u>50</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Setaria faberi</u>	<u>20</u>	<u>YES</u>	<u>UPL</u>
3.	<u>Symphotrichum pilosum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>90</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

**SOIL**

**Sampling Point:**

DP-72

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes \_\_\_\_\_ No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-73  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63267622 Long: -85.23170259 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Ephemeral Stream 41. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-73

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. <u>Celtis occidentalis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>12</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.7</u> (A/B)																
2. <u>Acer saccharum</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Maclura pomifera</u>	<u>20</u>	<u>YES</u>	<u>UPL</u>																	
4. <u>Acer rubrum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>90</u>	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1. <u>Maclura pomifera</u>	<u>20</u>	<u>YES</u>	<u>UPL</u>																	
2. <u>Acer saccharum</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Robinia pseudoacacia</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	<u>45</u>	= Total Cover																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <u>Euonymus fortunei</u>	<u>20</u>	<u>YES</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>																
2. <u>Rosa multiflora</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Geum canadense</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>45</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )																				
1. <u>Smilax rotundifolia</u>	<u>25</u>	<u>YES</u>	<u>FAC</u>	<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
2. <u>Lonicera japonica</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	<u>40</u>	= Total Cover																		
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 5/2	95	7.5YR 5/6	5	C	M	SiCL	
10-18	10YR 4/2	95	7.5YR 5/6	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)		<b>Indicators for Problematic Hydric Soils<sup>3</sup></b> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)	
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____
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**Remarks:**  
Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-74  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63413595 Long: -85.22864554 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat near the beginning of Ephemeral Stream 43. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>
Water Table Present? Yes _____ No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-74

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Celtis occidentalis</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>25</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Celtis occidentalis</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Symphoricarpos orbiculatus</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Prunus serotina</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>
4.	<u>Gleditsia triacanthos</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>55</u>	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Euonymus fortunei</u>	<u>25</u>	<u>YES</u>	<u>UPL</u>
2.	<u>Potentilla indica</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>30</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Smilax rotundifolia</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>
2.	<u>Campsis radicans</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		<u>15</u>	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-75  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63321500 Long: -85.22817202 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat near the beginning of Ephemeral Stream 44. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators are not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-75

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Verbesina alternifolia	70	YES	FAC
2.	Asclepias syriaca	15	NO	FACU
3.	Symphotrichum pilosum	5	NO	FAC
4.	Conium maculatum	5	NO	FACW
5.	Galium trifidum	5	NO	FACW
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is dominant. One hydrophytic vegetation indicator is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b>                  Type: _____                  Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="checked" type="checkbox"/></p>
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**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-76  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63510796 Long: -85.23183294 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u> No _____	
Wetland Hydrology Present?	Yes <u>✓</u> No _____	

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

Plot is representative of PEM Wetland 29. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<u>_____</u> Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> True Aquatic Plants (B14)	<u>_____</u> Sparsely Vegetated Concave Surface (B8)
<u>_____</u> High Water Table (A2)	<u>_____</u> Hydrogen Sulfide Odor (C1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> Saturation (A3)	<u>✓</u> Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Moss Trim Lines (B18)
<u>_____</u> Water Marks (B1)	<u>_____</u> Presence of Reduced Iron (C4)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Recent Iron Reduction Tiled Soils (C6)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Thin Muck Surface (C7)	<u>_____</u> Saturation Visible on Aerial Imagery (C9)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Other (Explain in Remarks)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Iron Deposits (B5)		<u>_____</u> Geomorphic Position (D2)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)		<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Water-Stained Leaves (B9)		<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Aquatic Fauna (B13)		<u>_____</u> FAC-Neutral Test (D5)

<b>Field Observations:</b>	Wetland Hydrology Present?	
Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____	Yes <u>✓</u> No _____	
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____		

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

Remarks:

Primary wetland hydrology indicators were present.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-76

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Juncus effusus	25	YES	FACW
2.	Scirpus atrovirens	25	YES	OBL
3.	Juncus acuminatus	25	YES	OBL
4.	Carex lurida	15	YES	OBL
5.	Eupatorium capillifolium	5	YES	FACU
6.	Solidago gigantea	5	YES	FACW
7.				
8.				
9.				
10.				
11.				
12.				
		100 = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					SiCL	
3-18	10YR 5/2	95	7.5YR 6/6	5	C	M+PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/15/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-77  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63508153 Long: -85.23170691 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

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

Plot is representative of upland habitat adjacent to Wetland 29 and Ephemeral Stream 46. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>

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

Remarks:

Wetland hydrology indicators are not present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Sorghum halepense</u> 40	YES	FACU
2.	<u>Dipsacus fullonum</u> 25	YES	FACU
3.	<u>Xanthium strumarium</u> 15	NO	FAC
4.	<u>Phleum pratense</u> 10	NO	FACU
5.	<u>Symphyotrichum pilosum</u> 10	NO	FAC
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	100	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation is not dominant. No hydrophytic vegetation indicators are present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 5/3	100					SiCL	Rock throughout, restrictive rock layer at 8 inches
8+	Restrictive rock							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b>                  Type: <u>Rock</u>                  Depth (inches): <u>8</u></p>	<p><b>Hydric Soil Present?</b>      Yes <input type="checkbox"/>      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-78  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.65412317 Long: -85.26933080 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: PUSC<sub>x</sub>

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat in a marked NWI freshwater pond and adjacent to Perennial Stream 3. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators are not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-78

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Poa pratensis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Xanthium strumarium</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>
3.	<u>Taraxacum officinale</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>
4.	<u>Plantago lanceolata</u>	<u>10</u>	<u>YES</u>	<u>UPL</u>
5.	<u>Trifolium pratense</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>95</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation is not dominant. No hydrophytic vegetation indicators are present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-79  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 20-25  
 Subregion (LRR or MRLA): LRR N Lat: 37.65598314 Long: -85.27415660 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 20 to 50 percent slopes, eroded (FaF) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 30. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
<u>✓</u> Iron Deposits (B5)	<u>✓</u> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes <u>✓</u> No _____ Depth (inches): <u>2</u>		Yes <u>✓</u> No _____
Water Table Present? Yes <u>✓</u> No _____ Depth (inches): <u>2</u>		
Saturation Present? (includes capillary fringe) Yes <u>✓</u> No _____ Depth (inches): <u>0</u>		

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

Remarks:  
**Primary wetland hydrology indicators were present.**

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Microstegium vimineum	40	YES	FAC
2.	Carex sp.	30	YES	N/A
3.	Leersia oryzoides	10	NO	OBL
4.	Conium maculatum	5	NO	FACW
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		85 = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 5/1	100					CL	Restrictive rock layer at 8 inches
8+	Rock							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Rock  
Depth (inches): 8

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-80  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 20-25  
 Subregion (LRR or MRLA): LRR N Lat: 37.65594404 Long: -85.27413555 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 20 to 50 percent slopes, eroded (FaF) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Wetland 30. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-80

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
	_____	= Total Cover	

<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15-ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
	_____	= Total Cover	

<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa pratensis</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>
2. <u>Festuca pratensis</u>	<u>30</u>	<u>YES</u>	<u>UPL</u>
3. <u>Phleum pratense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
4. <u>Plantago lanceolata</u>	<u>10</u>	<u>NO</u>	<u>UPL</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	<u>100</u>	= Total Cover	

<u>Woody Vine Stratum</u> (Plot Size: <u>30-ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

**No hydrophytic vegetation indicators were present.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**                      Yes \_\_\_\_\_                      No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-81  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.65714273 Long: -85.27135206 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat in a drainage ditch. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
**Wetland hydrology indicators were not present.**

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				
1.	Poa pratensis	30	YES	FACU
2.	Symphotrichum pilosum	25	YES	FAC
3.	Xanthium strumarium	20	NO	FAC
4.	Setaria pumila	15	NO	FAC
5.	Eupatorium perfoliatum	10	NO	FACW
6.	Andropogon virginicus	5	NO	FACU
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
	_____	105	= Total Cover	

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species _____	x 1 = _____
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species _____	x 5 = _____
Column Totals: <u>105</u> (A)	<u>340</u> (B)
Prevalence Index = B/A = <u>3.23</u>	

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/3	100					SiCL	Rock throughout

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

Remarks:  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-82  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.63208575 Long: -85.22313285 Datum: NAD 83  
 Soil Map Unit Name: Faywood silt clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat in a drainage ditch north of Open Water 39. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:

Wetland hydrology indicators were not present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Trifolium pratense</u>	<u>40</u>	<u>YES</u> <u>FACU</u>
2.	<u>Conium maculatum</u>	<u>30</u>	<u>YES</u> <u>FACW</u>
3.	<u>Symphotrichum pilosum</u>	<u>15</u>	<u>NO</u> <u>FAC</u>
4.	<u>Rumex crispus</u>	<u>5</u>	<u>NO</u> <u>FAC</u>
5.	<u>Cirsium discolor</u>	<u>5</u>	<u>NO</u> <u>UPL</u>
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	<u>95</u>	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species _____	x 1 = _____
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>95</u> (A)	<u>305</u> (B)

Prevalence Index = B/A = 3.21

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)		<b>Indicators for Problematic Hydric Soils<sup>3</sup></b> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)	
--	--	---	--	--	--

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____      No <input checked="" type="checkbox"/>
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**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-83  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 15-20  
 Subregion (LRR or MRLA): LRR N Lat: 37.63185016 Long: -85.22358822 Datum: NAD 83  
 Soil Map Unit Name: Faywood silt clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to Open Water 39. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
**Wetland hydrology indicators were not present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-83

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
			= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Andropogon virginicus</u>	<u>60</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Ambrosia artemisiifolia</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Symphotrichum pilosum</u>	<u>15</u>	<u>NO</u>	<u>FAC</u>
4.	<u>Setaria pumila</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-84  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.65165912 Long: -85.23548115 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat in a drainage area adjacent to Open Water 24. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 One secondary wetland indicator was observed. However, criteria for meeting the presence of wetland hydrology was not observed.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-84

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Juglans nigra</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>5</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Zea mays</u>	<u>60</u>	<u>YES</u>	<u>UPL</u>
2.	<u>Rumex crispus</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
3.	<u>Taraxacum officinale</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>
4.	<u>Conium maculatum</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>
5.	<u>Cirsium discolor</u>	<u>5</u>	<u>NO</u>	<u>UPL</u>
6.	<u>Setaria pumila</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>100</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (LRR N)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F17)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____                      No <input checked="" type="checkbox"/>
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**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-85  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 20-25  
 Subregion (LRR or MRLA): LRR N Lat: 37.64859336 Long: -85.24127766 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Perennial Stream 10. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-85

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Acer rubrum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
2.	<u>Juniperus virginiana</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Juglans nigra</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>
4.	<u>Quercus alba</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>
5.				
6.				
7.				
8.				
		<u>40</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Poa pratensis</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Symphoricarpos orbiculatus</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>
3.	<u>Plantago lanceolata</u>	<u>10</u>	<u>NO</u>	<u>UPL</u>
4.	<u>Conium maculatum</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>70</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

Prevalence Index = B/A =

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-86  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.65070508 Long: -85.24121019 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 31. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal. Tire tracks and gravel present throughout wetland. Soil has been significantly disturbed.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<u>_____</u> Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	<u>_____</u> True Aquatic Plants (B14)	<u>_____</u> Sparsely Vegetated Concave Surface (B8)
<u>_____</u> High Water Table (A2)	<u>_____</u> Hydrogen Sulfide Odor (C1)	<u>_____</u> Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	<u>_____</u> Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Moss Trim Lines (B18)
<u>_____</u> Water Marks (B1)	<u>_____</u> Presence of Reduced Iron (C4)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Recent Iron Reduction Tiled Soils (C6)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Thin Muck Surface (C7)	<u>_____</u> Saturation Visible on Aerial Imagery (C9)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Other (Explain in Remarks)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>✓</u> Iron Deposits (B5)		<u>_____</u> Geomorphic Position (D2)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)		<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Water-Stained Leaves (B9)		<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Aquatic Fauna (B13)		<u>_____</u> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes <u>✓</u> No _____
Surface Water Present?	Yes <u>✓</u>	No _____	Depth (inches): <u>3</u>	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <u>✓</u>	No _____	Depth (inches): <u>0</u>	

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

Remarks:  
 Primary wetland hydrology indicators were present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	Leersia oryzoides	40	YES OBL
2.	Scirpus atrovirens	20	YES OBL
3.	Juncus effusus	20	YES FACW
4.	Typha angustifolia	15	NO OBL
5.	Rumex crispus	10	NO FAC
6.	Conium maculatum	5	NO FACW
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	110	= Total Cover
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No \_\_\_\_\_

**Remarks:**

Soils significantly disturbed by recent tire tracks.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-87  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.65057141 Long: -85.24120672 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

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

Plot is representative of upland habitat adjacent to Wetland 31. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>

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

Remarks:

Wetland hydrology indicators were not present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Poa pratensis</u> 30	YES	FACU
2.	<u>Sorghum halepense</u> 30	YES	FACU
3.	<u>Vicia sp.</u> 20	YES	N/A
4.	<u>Plantago lanceolata</u> 20	YES	UPL
5.	<u>Daucus carota</u> 10	YES	UPL
6.	<u>Cirsium discolor</u> 5	NO	UPL
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	115	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/3	100					SiCL	Rock throughout, restrictive rock layer at 6 inches
6+	Rock							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

Indicators for Problematic Hydric Soils<sup>3</sup>

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock  
Depth (inches): 6

Hydric Soil Present?

Yes \_\_\_\_\_ No

Remarks:

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-88  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.64531391 Long: -85.23637908 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil Yes, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes _____ No _____	
Wetland Hydrology Present?	Yes <u>✓</u> No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 32. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal. Soil samples were not taken due to the substrate comprising of boulders.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
<u>✓</u> Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
<u>✓</u> Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes <u>✓</u> No _____	Depth (inches): <u>2</u>	Yes <u>✓</u> No _____
Water Table Present? Yes _____ No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Primary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-88

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
	_____	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
	_____	= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	Leersia oryzoides	40	YES OBL
2.	Persicaria lapathifolia	30	YES FACW
3.	Typha latifolia	20	NO OBL
4.	Echinochloa crus-galli	10	NO FAC
5.	Verbesina alternifolia	5	NO FAC
6.	Carex sp.	5	NO N/A
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
	_____	110	= Total Cover
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b>                  Type: _____                  Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes _____      No _____</p>
--	---

**Remarks:**  
 Soil samples were not taken due to the substrate comprising of boulders.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-89  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 1-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.64534558 Long: -85.23673089 Datum: NAD 83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, frequently flooded (No) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
---	---

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to Wetland 32. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <u>✓</u> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>
---	---

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

Remarks:  
**Wetland hydrology indicators are not present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-89

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
			= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Poa pratensis	60	YES	FACU
2.	Plantago major	25	YES	FACU
3.	Phleum pratense	20	NO	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		105	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes          No

Remarks: (Include photo numbers here or on a separate sheet.)  
**No hydrophytic vegetation indicators were present.**



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/3	100					SiCL	Rock throughout, restrictive rock layer at 6 inches
6+	Rock							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Rock  
 Depth (inches): 6

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-90  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64705788 Long: -85.23843197 Datum: NAD 83  
 Soil Map Unit Name: Elk silt loam, 2 to 6 percent slopes, rarely flooded (ErB) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 33. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input checked="" type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>&lt;1</u>	Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	

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

Remarks:  
**Primary wetland hydrology indicators were present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-90

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Packera glabella</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>
2.	<u>Ammannia coccinea</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>
3.	<u>Panicum capillare</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>
4.	<u>Cyperus esculentus</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>90</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	2.5Y 5/1	100					CL	
3-12	2.5Y 5/2	60	10YR 6/6	5	C	M	C	
	2.5Y 5/1	35						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

One hydric soil indicator was observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-91  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64695507 Long: -85.23842471 Datum: NAD 83  
 Soil Map Unit Name: Elk silt loam, 2 to 6 percent slopes, rarely flooded (ErB) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Wetland 33. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes _____ No <u>✓</u>

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

Remarks:  
 Wetland hydrology indicators are not present.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	Glycine max <u>90</u>	YES	UPL
2.	Packera glabella <u>5</u>	NO	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	<u>95</u>	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

Hydrophytic vegetation is not dominant. No hydrophytic vegetation indicators are present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/14/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-92  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.64322933 Long: -85.24027914 Datum: NAD 83  
 Soil Map Unit Name: Water (W) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 34. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
<u>✓</u> Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<u>✓</u> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes <u>✓</u> No _____	Depth (inches): <u>2</u>	Yes <u>✓</u> No _____
Water Table Present? Yes <u>✓</u> No _____	Depth (inches): <u>3</u>	
Saturation Present? (includes capillary fringe) Yes <u>✓</u> No _____	Depth (inches): <u>0</u>	

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

Remarks:  
**Primary wetland hydrology indicators were present.**



Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Leersia oryzoides</u>	<u>40</u>	<u>YES</u>	<u>OBL</u>
2.	<u>Persicaria lapathifolia</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>
3.	<u>Packera glabella</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>
4.	<u>Rumex crispus</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>70</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	2.5Y 5/2	100					CL	
2-8	2.5Y 5/1	70	5GY 5/2	15	D	M	CL	
			10YR 6/6	15	C	M+PL		
8-12	5GY 5/2	90	10YR 6/6	10	C	M+PL	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**  
Hydric soils indicators were observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-93  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.64327848 Long: -85.24034028 Datum: NAD 83  
 Soil Map Unit Name: Water (W) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat adjacent to Wetland 34. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

Wetland hydrology indicators were not present.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Digitaria sanguinalis</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Poa pratensis</u>	<u>35</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Phleum pratense</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

**No hydrophytic vegetation indicators were present.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

Indicators for Problematic Hydric Soils<sup>3</sup>

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

Remarks:

Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-94  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 15-20  
 Subregion (LRR or MRLA): LRR N Lat: 37.64278074 Long: -85.23875050 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Perennial Stream 10. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-94

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
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6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>          </u></td> <td>x 1 = <u>          </u></td> </tr> <tr> <td>FACW species <u>          </u></td> <td>x 2 = <u>          </u></td> </tr> <tr> <td>FAC species <u>          </u></td> <td>x 3 = <u>          </u></td> </tr> <tr> <td>FACU species <u>          </u></td> <td>x 4 = <u>          </u></td> </tr> <tr> <td>UPL species <u>          </u></td> <td>x 5 = <u>          </u></td> </tr> <tr> <td>Column Totals: <u>          </u></td> <td>(A) <u>          </u> (B) <u>          </u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>          </u></td> </tr> </table>	Total % Cover of	Multiply by:	OBL species <u>          </u>	x 1 = <u>          </u>	FACW species <u>          </u>	x 2 = <u>          </u>	FAC species <u>          </u>	x 3 = <u>          </u>	FACU species <u>          </u>	x 4 = <u>          </u>	UPL species <u>          </u>	x 5 = <u>          </u>	Column Totals: <u>          </u>	(A) <u>          </u> (B) <u>          </u>	Prevalence Index = B/A = <u>          </u>	
Total % Cover of	Multiply by:																			
OBL species <u>          </u>	x 1 = <u>          </u>																			
FACW species <u>          </u>	x 2 = <u>          </u>																			
FAC species <u>          </u>	x 3 = <u>          </u>																			
FACU species <u>          </u>	x 4 = <u>          </u>																			
UPL species <u>          </u>	x 5 = <u>          </u>																			
Column Totals: <u>          </u>	(A) <u>          </u> (B) <u>          </u>																			
Prevalence Index = B/A = <u>          </u>																				
1.																				
2.																				
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8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Digitaria sanguinalis</u>	<u>60</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Glechoma hederacea</u>	<u>25</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Conium maculatum</u>	<u>10</u>	<u>NO</u>		<u>FACW</u>															
4.	<u>Rumex crispus</u>	<u>10</u>	<u>NO</u>		<u>FAC</u>															
5.																				
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9.																				
10.																				
11.																				
12.																				
			105	= Total Cover																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	

Remarks: (Include photo numbers here or on a separate sheet.)  
 Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
Hydric soils indicators were not observed.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/17/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-95  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.64035361 Long: -85.23339548 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u> No _____	
Wetland Hydrology Present?	Yes <u>✓</u> No _____	

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

Plot is representative of PEM Wetland 35. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<u>_____</u> Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> True Aquatic Plants (B14)	<u>_____</u> Sparsely Vegetated Concave Surface (B8)
<u>_____</u> High Water Table (A2)	<u>_____</u> Hydrogen Sulfide Odor (C1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> Saturation (A3)	<u>✓</u> Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Moss Trim Lines (B18)
<u>_____</u> Water Marks (B1)	<u>_____</u> Presence of Reduced Iron (C4)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Recent Iron Reduction Tiled Soils (C6)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Thin Muck Surface (C7)	<u>_____</u> Saturation Visible on Aerial Imagery (C9)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Other (Explain in Remarks)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Iron Deposits (B5)		<u>_____</u> Geomorphic Position (D2)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)		<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Water-Stained Leaves (B9)		<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Aquatic Fauna (B13)		<u>_____</u> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <u>✓</u> No _____
Surface Water Present?	Yes _____ No <u>✓</u>	Depth (inches):	_____	
Water Table Present?	Yes _____ No <u>✓</u>	Depth (inches):	_____	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u>	Depth (inches):	_____	

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

Remarks:

One primary wetland hydrology indicator was present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-95

Tree Stratum (Plot Size: 30 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Platanus occidentalis</i>	15	YES	FACW
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		15	= Total Cover	
Sapling/Shrub Stratum (Plot Size: 15-ft. radius )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: 5 ft. radius )				
1.	<i>Persicaria lapathifolia</i>	40	YES	FACW
2.	<i>Phleum pratense</i>	20	YES	FACU
3.	<i>Panicum capillare</i>	20	YES	FAC
4.	<i>Symphotrichum pilosum</i>	20	YES	FAC
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100	= Total Cover	
Woody Vine Stratum (Plot Size: 30-ft. radius )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation was dominant.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-96  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.64579667 Long: -85.24026928 Datum: NAD 83  
 Soil Map Unit Name: Faywood silty clay loam, 6 to 12 percent slopes, eroded (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

Plot is representative of upland habitat in a drainage area west of Perennial Stream 10. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:

Wetland hydrology indicators were not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-96

Tree Stratum (Plot Size: 30 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: 15-ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____ = Total Cover		
Herb Stratum (Plot Size: 5 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Sorghum halepense	60	YES	FACU
2.	Plantago lanceolata	15	NO	UPL
3.	Rumex crispus	10	NO	FAC
4.	Conium maculatum	5	NO	FACW
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		90 = Total Cover		
Woody Vine Stratum (Plot Size: 30-ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation was not dominant. No hydrophytic vegetation indicators were present.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-97  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.64065876 Long: -85.22179216 Datum: NAD 83  
 Soil Map Unit Name: Nicholson silt loam, 2 to 6 percent slopes (NhB) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat. Aerial imagery showed this area as a pond. Field surveys confirmed the pond had recently been drained. Hydric soils were not present. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<u>✓</u> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<u>✓</u> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes <u>✓</u> No _____

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

Remarks:  
 Two secondary wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-97

Tree Stratum (Plot Size: 30 ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
	_____	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15-ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
	_____	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Panicum laetifolium</i>	60	YES	FACW
2. <i>Echinochloa crus-galli</i>	40	YES	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	100	= Total Cover	

Woody Vine Stratum (Plot Size: 30-ft. radius )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)		<p><input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)  <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F17)  <input type="checkbox"/> Redox Depressions (F8)  <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)  <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)  <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)  <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)                 </p>		<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)	
--	--	---	--	--	--

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-98  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63977876 Long: -85.22464741 Datum: NAD 83  
 Soil Map Unit Name: Faywood silt clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes <u>✓</u>	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of PEM Wetland 36. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<u>✓</u> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<u>✓</u> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	<u>✓</u> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes <u>✓</u> No _____ Depth (inches): _____		Yes <u>✓</u> No _____
Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes <u>✓</u> No _____ Depth (inches): _____		

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

Remarks:  
**Primary wetland hydrology indicators were present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-98

Tree Stratum (Plot Size: 30 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: 15-ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: 5 ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Leersia oryzoides	40	YES	OBL
2.	Juncus effusus	30	YES	FACW
3.	Carex sp.	20	YES	N/A
4.	Xanthium strumarium	10	NO	FAC
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		100	= Total Cover	
Woody Vine Stratum (Plot Size: 30-ft. radius )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is dominant. One hydrophytic vegetation indicator is present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 5/3	90	7.5YR 6/6	100	C	M	CL	
4-12	5GY 6/1	90	2.5Y 6/4	10	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soils indicators were observed.

### WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-99  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63975543 Long: -85.22478191 Datum: NAD 83  
 Soil Map Unit Name: Faywood silt clay, 6 to 20 percent slopes, severely eroded (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

#### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
---	---

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland habitat adjacent to Wetland 36. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.**

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
--	---

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

Remarks:  
**Wetland hydrology indicators are not present.**

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Digitaria sanguinalis</u>	<u>90</u>	<u>YES</u> <u>FACU</u>
2.	<u>Juncus effusus</u>	<u>5</u>	<u>NO</u> <u>FACW</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		<u>95</u>	= Total Cover
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

Hydrophytic vegetation is not dominant. No hydrophytic vegetation indicators are present.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histic Sol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 Hydric soils indicators were not observed.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-100  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.64524906 Long: -85.22415837 Datum: NAD 83  
 Soil Map Unit Name: Dunning silty clay loam, 0 to 2 percent slopes, frequently flooded (Du) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Intermittent Stream 31. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators are not present.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-100

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Digitaria sanguinalis</u>	<u>50</u>	<u>YES</u> <u>FACU</u>
2.	<u>Poa pratensis</u>	<u>25</u>	<u>YES</u> <u>FACU</u>
3.	<u>Rumex crispus</u>	<u>20</u>	<u>YES</u> <u>FAC</u>
4.	<u>Ranunculus sp.</u>	<u>5</u>	<u>NO</u> <u>N/A</u>
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		<u>100</u> = Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

       1 - Rapid Test for Hydrophytic Vegetation

       2 - Dominance Test is >50%

       3 - Prevalence Index is ≤ 3.0<sup>1</sup>

       4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

       5 - Problematic Hydrophytic Vegetation <sup>1</sup>

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

Hydrophytic vegetation is not dominant. No hydrophytic vegetation indicators are present.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-101  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63584226 Long: -85.23023041 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes _____ No _____	
Wetland Hydrology Present?	Yes <u>✓</u> No _____	

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

Plot is representative of PSS Wetland 37. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal. Soils significantly disturbed from surrounding agricultural fields.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	<u>✓</u> Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	<u>✓</u> Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		<u>✓</u> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____ No <u>✓</u>	Depth (inches): _____			Wetland Hydrology Present?  Yes <u>✓</u> No _____
Water Table Present?	Yes _____ No <u>✓</u>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u>	Depth (inches): _____			

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

Remarks:

Wetland hydrology indicators were present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-101

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	60	YES	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		60 = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Symphotrichum pilosum	15	YES	FAC
2.	Carex sp.	15	YES	N/A
3.	Bidens frondosa	5	YES	FACW
4.	Elymus virginicus	5	YES	FACW
5.	Conium maculatum	5	YES	FACW
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		45 = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - x \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation is dominant.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/18/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-102  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.63594520 Long: -85.23027204 Datum: NAD 83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland habitat adjacent to Wetland 37. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present? Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators are not present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-102

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Solidago canadensis</u>	<u>60</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Vernonia angustifolia</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>
3.	<u>Symphotrichum pilosum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - \_\_\_\_\_ 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation is not dominant. No hydrophytic vegetation indicators are present.





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 11/16/2022  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-103  
 Investigator(s): K. Yeager, E. Johnston Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.645438 Long: -85.228511 Datum: NAD 83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology Yes \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No \_\_\_\_\_ naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of PEM Wetland 38. We completed the due diligence check of the Antecedent Precipitation Tool pre-delineation to understand relevant conditions; and our check of the APT indicated that the conditions were drier than normal. Wetland had recently been bulldozed, wetland hydrology significantly disturbed.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No _____
Surface Water Present?	Yes _____ No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____ No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology was significantly disturbed due to recent bulldozing activities within the wetland.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1.	<u>Typha latifolia</u>	<u>50</u>	<u>YES</u> OBL
2.	<u>Juncus effusus</u>	<u>25</u>	<u>YES</u> FACW
3.	<u>Solidago gigantea</u>	<u>25</u>	<u>YES</u> FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		<u>100</u>	= Total Cover
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation was dominant.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-104  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.65249 Long: -85.24894 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaF) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-104 is representative of PFO Wetland 39.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>14</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**Wetland hydrology indicators present.**





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-105  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.65235 Long: -85.24857 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaF) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-105 is an upland plot located adjacent to Wetland 39.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present?  Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-105

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Celtis occidentalis</u>	40	YES	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)																
2. <u>Acer negundo</u>	15	YES	FAC																	
3. <u>Ulmus americana</u>	10	NO	FACW																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
	<u>65</u>	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )</b>																				
1. <u>Celtis occidentalis</u>	15	YES	FACU																	
2. <u>Acer negundo</u>	10	YES	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
	<u>25</u>	= Total Cover																		
<b>Herb Stratum (Plot Size: <u>5 ft. radius</u> )</b>																				
1. <u>Euonymus fortunei</u>	80	YES	FACU	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Rubus allegheniensis</u>	10	NO	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>90</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )</b>																				
1. _____				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
				<b>Hydrophytic Vegetation Present?</b>  Yes _____ No <input checked="" type="checkbox"/>																
_____ = Total Cover																				

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

Hydrophytic vegetation is not dominant.





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-106  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65186 Long: -85.24890 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
**DP-106 is an upland plot located in an evergreen shrub land.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		

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

Remarks:  
**No wetland hydrology indicators present.**

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Pinus strobus</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Juniperus virginiana</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>
3.				
4.				
5.				
6.				
7.				
8.				
		<u>40</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
			= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )				
1.	<u>Solidago canadensis</u>	<u>90</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Dactylis glomerata</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes        No

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

Hydrophytic vegetation is not dominant.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?      Yes \_\_\_\_\_      No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-107  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 6  
 Subregion (LRR or MRLA): LRR N Lat: 37.650587 Long: -85.253508 Datum: NAD83  
 Soil Map Unit Name: Fairmount-Rock outcrop complex, 6 to 20 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland conditions adjacent to Open Water 44 in a fallow agricultural field. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

N/A

Remarks:

Wetland hydrology indicators were not present; Parameter not met.

	Absolute % Cover	Dominant Species?	Indicator Status																																																							
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																																																						
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			= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> </tr> <tr> <th>Total % Cover of</th> <th></th> <th></th> <th>Multiply by:</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> <td></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> <td></td> <td></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> <td></td> <td></td> </tr> <tr> <td>FACU species</td> <td><u>65</u></td> <td>x 4 =</td> <td><u>260</u></td> <td></td> <td></td> </tr> <tr> <td>UPL species</td> <td><u>20</u></td> <td>x 5 =</td> <td><u>100</u></td> <td></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td><u>85</u></td> <td>(A)</td> <td><u>360</u></td> <td>(B)</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>4.24</u></td> <td></td> <td></td> </tr> </tbody> </table>							Total % Cover of			Multiply by:			OBL species	<u>0</u>	x 1 =	<u>0</u>			FACW species	<u>0</u>	x 2 =	<u>0</u>			FAC species	<u>0</u>	x 3 =	<u>0</u>			FACU species	<u>65</u>	x 4 =	<u>260</u>			UPL species	<u>20</u>	x 5 =	<u>100</u>			Column Totals:	<u>85</u>	(A)	<u>360</u>	(B)		Prevalence Index = B/A =			<u>4.24</u>	
Total % Cover of			Multiply by:																																																							
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<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																																																										
1.	<u>Sorghum halepense</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>																																																						
2.	<u>Phleum pratense</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																																																						
3.	<u>Setaria faberi</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>																																																						
4.	<u>Trifolium repens</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																																																						
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Remarks: (Include photo numbers here or on a separate sheet.) <b>No hydrophytic vegetation indicators were present; Parameter not met.</b>																																																										
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																										
<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																																																										
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																																										

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	100					SiCL	
3-18	10YR 5/4	93	10YR 4/2	5	C	M	CL	
			5YR 3/4	2	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-108  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65018 Long: -85.25474 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-108 is an upland plot located adjacent to Open Water 44.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present?  Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-108

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
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					<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1.																				
2.																				
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8.																				
9.																				
10.																				
				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1.	<u>Sorghum halepense</u>	<u>30</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Setaria faberi</u>	<u>20</u>	<u>YES</u>		<u>UPL</u>															
3.	<u>Dactylis glomerata</u>	<u>15</u>	<u>NO</u>		<u>FACU</u>															
4.	<u>Xanthium strumarium</u>	<u>10</u>	<u>NO</u>		<u>FAC</u>															
5.	<u>Conium maculatum</u>	<u>5</u>	<u>NO</u>		<u>FACW</u>															
6.																				
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		<u>80</u>																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.																				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-109  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64952 Long: -85.25502 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaD) NWI Classification: PUBHh

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-109 is an upland plot located in a NWI mapped pond.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/5/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-110  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65048 Long: -85.25034 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>✓</u> No _____ Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-110 is an upland plot located in a grassy swale.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**







**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-111  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10-15  
 Subregion (LRR or MRLA): LRR N Lat: 37.65048 Long: -85.25034 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

**DP-111 is an upland plot located adjacent to Perennial Stream 10.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____ No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____ No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u>	Depth (inches): _____		

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

Remarks:

**No wetland hydrology indicators present.**

**VEGETATION - Use scientific names of plants**

Sampling Point: DP-111

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Celtis occidentalis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)
2. <u>Ulmus americana</u>	<u>25</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Quercus alba</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
4. <u>Juniperus virginiana</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>70</u>	<u>= Total Cover</u>		<b>Prevalence Index worksheet:</b> Total % Cover of _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Celtis occidentalis</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Ulmus americana</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
	<u>20</u>	<u>= Total Cover</u>		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Arundinaria tecta</u>	<u>25</u>	<u>YES</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation x _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>25</u>	<u>= Total Cover</u>		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant.				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-112  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63486 Long: -85.27059 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-112 is representative of Wetland 52. Vegetation was recently mowed.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	Moss Trim Lines (B18)
_____ Water Marks (B1)	Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	Crayfish Burrows (C8)
_____ Drift Deposits (B3)	Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-112

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
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7.																				
8.																				
					<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
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				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation x _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1.	<u>Lolium arundinacea</u>	<u>90</u>	<u>YES</u> <u>FAC</u>																	
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12.																				
		<u>90</u>	= Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
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4.																				
5.																				
6.																				
			= Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b>  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Hydrophytic vegetation is dominant.																				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-113  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63471 Long: -85.27101 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-113 is representative of Wetland 51. Vegetation was recently mowed.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-113

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
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7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
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8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation x _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Lolium arundinacea</u>	<u>30</u>	<u>YES</u>		<u>FAC</u>															
2.	<u>Juncus effusus</u>	<u>30</u>	<u>YES</u>		<u>FACW</u>															
3.	<u>Typha latifolia</u>	<u>25</u>	<u>YES</u>		<u>OBL</u>															
4.																				
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8.																				
9.																				
10.																				
11.																				
12.																				
			<u>85</u> = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant.																				



**SOIL**

**Sampling Point:** DP-113

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/2	80	5YR 4/6	20	C	M+PL	CL	
4-14	10YR 5/4	75	10YR 4/2	20	C	M	C	
			10YR 2/1	5	C	M	C	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup></b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F17)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)		

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

**Remarks:**  
Hydric soil indicator is present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-114  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63474 Long: -85.27117 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

DP-114 is an upland plot located adjacent to Wetland 51 and Wetland 52. Vegetation was recently mowed.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Water Table Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u> Depth (inches): _____	

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

Remarks:

No wetland hydrology indicators present.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-114

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Solidago altissima</u>	<u>60</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Allium canadense</u>	<u>20</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Lolium arundinacea</u>	<u>15</u>	<u>NO</u>		<u>FAC</u>															
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
			95	= Total Cover																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
<b>Hydrophytic Vegetation Present?</b>				Yes _____ No <input checked="" type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.)  Hydrophytic vegetation is not dominant.																				

**SOIL**

**Sampling Point:** DP-114

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 5/3	100					CL	
3-14	10YR 5/4	100					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> ) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> ) <input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136,122</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> ) <input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127,147</b> )	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Coast Prairie Redox (A16) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-115  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64840 Long: -85.25735 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: PUBHh

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-115 is an upland plot located in an agricultural field in a NWI mapped pond.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-115

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
_____ = Total Cover																				
<b>Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Herb Stratum (Plot Size: <u>5 ft. radius</u> )</b>																				
1. <u>Dactylis glomerata</u>	<u>70</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Panicum virgatum</u>	<u>15</u>	<u>NO</u>	<u>FAC</u>																	
3. <u>Rumex maritimus</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)  Hydrophytic vegetation is not dominant.				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height				<b>Hydrophytic Vegetation Present?</b>  Yes _____ No <input checked="" type="checkbox"/>																

**SOIL**

**Sampling Point:** DP-115

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					SiCL	
3-18	10YR 4/6	100					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F17)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)</p> <p><input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)</p> <p><input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes _____      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-116  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.646414 Long: -85.257853 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 40, a PFO wetland adjacent to stream that is located outside of the Project boundary. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____		
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>10"</u>			
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>8"</u>			

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

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.



Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	30	Yes	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		<u>30</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	15	Yes	OBL
2.	Acer rubrum	15	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		<u>30</u>	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Typha latifolia	30	Yes	OBL
2.	Vernonia noveboracensis	25	Yes	FACW
3.	Carex lurida	20	Yes	OBL
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>75</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No         

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-117  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 6  
 Subregion (LRR or MRLA): LRR N Lat: 37.646484 Long: -85.257474 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland conditions adjacent to Wetland 40. The sample point was taken in an upland swale adjacent to an agricultural field. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present; Parameter not met.

	Absolute % Cover	Dominant Species?	Indicator Status																																														
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																																													
1. _____	_____	_____	_____																																														
2. _____	_____	_____	_____																																														
3. _____	_____	_____	_____																																														
4. _____	_____	_____	_____																																														
5. _____	_____	_____	_____																																														
6. _____	_____	_____	_____																																														
7. _____	_____	_____	_____																																														
8. _____	_____	_____	_____																																														
			= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> </tr> <tr> <td></td> <td style="text-align: center;">Total % Cover of</td> <td></td> <td style="text-align: center;">Multiply by:</td> <td></td> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>10</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>30</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>340</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>100</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>380</u></td> <td style="text-align: center;">(B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.80</u></td> <td></td> </tr> </tbody> </table>							Total % Cover of		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>		FACW species	<u>5</u>	x 2 =	<u>10</u>		FAC species	<u>10</u>	x 3 =	<u>30</u>		FACU species	<u>85</u>	x 4 =	<u>340</u>		UPL species	<u>0</u>	x 5 =	<u>0</u>		Column Totals:	<u>100</u>	(A)	<u>380</u>	(B)	Prevalence Index = B/A =			<u>3.80</u>
	Total % Cover of		Multiply by:																																														
OBL species	<u>0</u>	x 1 =	<u>0</u>																																														
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Column Totals:	<u>100</u>	(A)	<u>380</u>	(B)																																													
Prevalence Index = B/A =			<u>3.80</u>																																														
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )																																																	
1. <u>Acer rubrum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																																														
2. _____	_____	_____	_____																																														
3. _____	_____	_____	_____																																														
4. _____	_____	_____	_____																																														
5. _____	_____	_____	_____																																														
6. _____	_____	_____	_____																																														
7. _____	_____	_____	_____																																														
8. _____	_____	_____	_____																																														
9. _____	_____	_____	_____																																														
10. _____	_____	_____	_____																																														
			= Total Cover																																														
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																																																	
1. <u>Sorghum halepense</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>																																														
2. <u>Solidago gigantea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																																														
3. <u>Taraxacum officinale</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																																														
4. <u>Symphotrichum pilosum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																																														
5. _____	_____	_____	_____																																														
6. _____	_____	_____	_____																																														
7. _____	_____	_____	_____																																														
8. _____	_____	_____	_____																																														
9. _____	_____	_____	_____																																														
10. _____	_____	_____	_____																																														
11. _____	_____	_____	_____																																														
12. _____	_____	_____	_____																																														
			= Total Cover																																														
<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )																																																	
1. _____	_____	_____	_____																																														
2. _____	_____	_____	_____																																														
3. _____	_____	_____	_____																																														
4. _____	_____	_____	_____																																														
5. _____	_____	_____	_____																																														
6. _____	_____	_____	_____																																														
			= Total Cover																																														
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																	
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																																																	
<b>Hydrophytic Vegetation Present?</b>  Yes _____ No <input checked="" type="checkbox"/>																																																	
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation indicators were present; Parameter not met.																																																	

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					SIL	
2-18	10YR 4/3	75	10YR 4/6	25	C	M	SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-118  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 6  
 Subregion (LRR or MRLA): LRR N Lat: 37.646676 Long: -85.255432 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland swale conditions adjacent to Wetland 41. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:  
 Wetland hydrology indicators were not present; Parameter not met.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-118

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>385</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.05</u></td> </tr> </tbody> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup></p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p><b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.26 ft. in height</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	Total % Cover of	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals: <u>95</u> (A)	<u>385</u> (B)	Prevalence Index = B/A = <u>4.05</u>	
Total % Cover of	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>40</u>	x 5 = <u>200</u>																			
Column Totals: <u>95</u> (A)	<u>385</u> (B)																			
Prevalence Index = B/A = <u>4.05</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
			_____ = Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
			_____ = Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <u>Anthriscus sylvestris</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Sorghum halepense</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Vernonia gigantea</u>	<u>15</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Solidago gigantea</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Dipsacus laciniatus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
			<u>95</u> = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
			_____ = Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)																				
No hydrophytic vegetation indicators were present; Parameter not met.																				

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100					SIL	
2-18	10YR 4/3	95	7.5YR 4/6	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-119  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.646744 Long: -85.255103 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 41, a PEM within a swale. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/>	No _____
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>2"</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>0"</u>		

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

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Leersia oryzoides</u>	<u>70</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Persicaria lapathifolia</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
3.	<u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
4.	<u>Solidago canadensis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5.	<u>Microstegium vimineum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>100</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 11 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	2.5Y 4/2	95	7.5YR 4/6	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No \_\_\_\_\_

**Remarks:**

Hydric soil indicators were observed; Parameter met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-120  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): 0  
 Subregion (LRR or MRLA): LRR N Lat: 37.650708 Long: -85.258865 Datum: NAD83  
 Soil Map Unit Name: Faywood silty clay loam, 12 to 20 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland floodplain conditions adjacent to ephemeral stream 69. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present?	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		Yes _____

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

N/A

Remarks:

Wetland hydrology indicators were not present; Parameter not met.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-120

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Juglans nigra</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		<u>25</u>	= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Juglans nigra</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
2.	<u>Ailanthus altissima</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>40</u>	= Total Cover	
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Anthriscus sylvestris</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>
2.	<u>Phytolacca americana</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
3.	<u>Galium pilosum</u>	<u>15</u>	<u>No</u>	<u>UPL</u>
4.	<u>Elymus virginicus</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
5.	<u>Solidago gigantea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		<u>95</u>	= Total Cover	
<u>Woody Vine Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>90</u>	x 4 = <u>360</u>
UPL species <u>55</u>	x 5 = <u>275</u>
Column Totals: <u>160</u> (A)	<u>665</u> (B)
Prevalence Index = B/A = <u>4.16</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

**No hydrophytic vegetation indicators were present; Parameter not met.**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/3	100					SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> ) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> ) <input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136,122</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> ) <input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127,147</b> )	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Coast Prairie Redox (A16) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p style="text-align: center;"><b>Hydric Soil Present?</b></p> Yes _____ No <input checked="" type="checkbox"/>
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**Remarks:**  
 Hydric soil indicators were not observed; Parameter not met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-121  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.65037 Long: -85.26171 Datum: WGS 84  
 Soil Map Unit Name: Faywood silty clay loam (FoD2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-121 is an upland plot located adjacent to Wetland 42.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 \_\_\_\_\_  
 Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-121

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)																
1. <u>Juglans nigra</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>10</u>	<u>        </u> = Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	_____	<u>        </u> = Total Cover																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Dactylis glomerata</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Sorghum halepense</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Ambrosia psilostachya</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>																	
4. <u>Solidago canadensis</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
5. <u>Daucus carota</u>	<u>5</u>	<u>NO</u>	<u>UPL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>90</u>	<u>        </u> = Total Cover																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	<u>        </u> = Total Cover																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.																				





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-122  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65046 Long: -85.26179 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaD) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-122 is representative of PSS Wetland 42.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Hydrogen Sulfide Odor (C1)
_____ Water Marks (B1)	_____ Oxidized Rhizospheres on Living Roots (C3)
_____ Sediment Deposits (B2)	_____ Presence of Reduced Iron (C4)
_____ Drift Deposits (B3)	_____ Recent Iron Reduction Tiled Soils (C6)
_____ Algal Mat or Crust (B4)	_____ Thin Muck Surface (C7)
_____ Iron Deposits (B5)	_____ Other (Explain in Remarks)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Stunted or Stressed Plants (D1)
_____ Water-Stained Leaves (B9)	_____ Geomorphic Position (D2)
_____ Aquatic Fauna (B13)	_____ Saturation Visible on Aerial Imagery (C9)
	_____ Dry-Season Water Table (C2)
	_____ Crayfish Burrows (C8)
	_____ Microtopographic Relief (D4)
	_____ FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> (includes capillary fringe)	Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-122

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)																
1. <u>Salix nigra</u>	<u>15</u>	<u>YES</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>15</u>	<u>        </u> = Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. <u>Salix nigra</u>	<u>40</u>	<u>YES</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	<u>40</u>	<u>        </u> = Total Cover																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>        </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>        </u> 3 - Prevalence Index is ≤ 3.0' <u>        </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Carex sp.</u>	<u>30</u>	<u>YES</u>	<u>N/A</u>																	
2. <u>Packera glabella</u>	<u>15</u>	<u>YES</u>	<u>OBL</u>																	
3. <u>Arundinaria tecta</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>																	
4. <u>Solidago canadensis</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>75</u>	<u>        </u> = Total Cover																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____	<u>        </u> = Total Cover																		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant.																				

**SOIL**

**Sampling Point:** DP-122

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/2	97	7.5YR 4/6	3	C	M	CL	gravel throughout

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes  No

**Remarks:**

Hydric soil indicator is present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-123  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MRLA): LRR N Lat: 37.646938 Long: -85.261640 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

Plot is representative of Wetland 43, a PFO fringe wetland off of Open water 45 . The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/>	No _____
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		

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

N/A

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-123

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	30	Yes	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		30	= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	10	Yes	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		10	= Total Cover	
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Typha latifolia	40	Yes	OBL
2.	Carex lurida	25	Yes	OBL
3.	Symphytotrichum pilosum	15	No	FAC
4.	Rumex crispus	10	No	FAC
5.	Galium tinctorium	5	No	OBL
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		95	= Total Cover	
<u>Woody Vine Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No           

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 4/2	95	7.5YR 4/6	5	C	M + PL	SiCL	
10-18	10YR 4/2	50	10YR 3/4	50	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soil indicators were observed; Parameter met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-124  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slightly convex Slope (%): 1  
 Subregion (LRR or MRLA): LRR N Lat: 37.646809 Long: -85.261579 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loam,6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland conditions adjacent to Wetland 43. Sample point was taken in a fallow section of an agricultural field. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

N/A

Remarks:

Wetland hydrology indicators were not present; Parameter not met.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-124

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20.0%</u> (A/B)																																																
1.																																																				
2.																																																				
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7.																																																				
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			= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> <td></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>2</u></td> <td>x 2 =</td> <td><u>4</u></td> <td></td> <td></td> </tr> <tr> <td>FAC species</td> <td><u>10</u></td> <td>x 3 =</td> <td><u>30</u></td> <td></td> <td></td> </tr> <tr> <td>FACU species</td> <td><u>80</u></td> <td>x 4 =</td> <td><u>320</u></td> <td></td> <td></td> </tr> <tr> <td>UPL species</td> <td><u>5</u></td> <td>x 5 =</td> <td><u>25</u></td> <td></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td><u>95</u></td> <td>(A)</td> <td></td> <td><u>375</u></td> <td>(B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>3.91</u></td> <td></td> <td></td> </tr> </tbody> </table>							OBL species	<u>0</u>	x 1 =	<u>0</u>			FACW species	<u>2</u>	x 2 =	<u>4</u>			FAC species	<u>10</u>	x 3 =	<u>30</u>			FACU species	<u>80</u>	x 4 =	<u>320</u>			UPL species	<u>5</u>	x 5 =	<u>25</u>			Column Totals:	<u>95</u>	(A)		<u>375</u>	(B)	Prevalence Index = B/A =			<u>3.91</u>	
OBL species	<u>0</u>	x 1 =	<u>0</u>																																																	
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Prevalence Index = B/A =			<u>3.91</u>																																																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )																																																				
1.	<u>Prunus serotina</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																																																
2.	<u>Rubus pensilvanicus</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																																																
3.																																																				
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<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																
1.	<u>Andropogon virginicus</u>	<u>25</u>	<u>Yes</u>		<u>FACU</u>																																															
2.	<u>Solidago altissima</u>	<u>20</u>	<u>Yes</u>		<u>FACU</u>																																															
3.	<u>Sorghum halepense</u>	<u>20</u>	<u>Yes</u>		<u>FACU</u>																																															
4.	<u>Symphotrichum pilosum</u>	<u>5</u>	<u>No</u>		<u>FAC</u>																																															
5.	<u>Phleum pratense</u>	<u>5</u>	<u>No</u>		<u>FACU</u>																																															
6.	<u>Daucus carota</u>	<u>5</u>	<u>No</u>		<u>UPL</u>																																															
7.	<u>Vernonia noveboracensis</u>	<u>2</u>	<u>No</u>		<u>FACW</u>																																															
8.																																																				
9.																																																				
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11.																																																				
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<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																																																
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2.																																																				
3.																																																				
4.																																																				
5.																																																				
6.																																																				
			= Total Cover																																																	
Remarks: (Include photo numbers here or on a separate sheet.) <b>No hydrophytic vegetation indicators were present; Parameter not met.</b>				<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <input checked="" type="checkbox"/>																																																

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					SiCL	
3-9	10YR 5/4	100					SiCL	
9-18	10YR 6/6	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-125  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.64946 Long: -85.26943 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaF) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-125 is representative of PEM Wetland 44. Wetland is impacted by cows.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) _____ True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) _____ Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) _____ Recent Iron Reduction Tiled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) _____ Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) _____ Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) _____ <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) _____ <input type="checkbox"/> Water-Stained Leaves (B9) _____ <input type="checkbox"/> Aquatic Fauna (B13) _____	Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B18) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5) _____

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-125

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
					<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	(A) (B)	Prevalence Index = B/A =
Total % Cover of	Multiply by:																			
OBL species	x 1 =																			
FACW species	x 2 =																			
FAC species	x 3 =																			
FACU species	x 4 =																			
UPL species	x 5 =																			
Column Totals:	(A) (B)																			
Prevalence Index = B/A =																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤ 3.0' <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1.	Carex sp.	30	YES		N/A															
2.	Scirpus atrovirens	20	YES		OBL															
3.	Bidens frondosa	15	NO		FACW															
4.	Packera glabella	10	NO		OBL															
5.	Persicaria lapathifolia	5	NO		FACW															
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
		80		= Total Cover																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
				<b>Hydrophytic Vegetation Present?</b>  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.)																				
Hydrophytic vegetation is dominant.																				

**SOIL**

**Sampling Point:** DP-125

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100					CL	
2-12	10YR 4/1	93	10YR 5/6	7	C	M+PL	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F17)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)</p> <p><input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)</p> <p><input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR N)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes       No \_\_\_\_\_

**Remarks:**  
Hydric soil indicator is present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-126  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64934 Long: -85.26923 Datum: WGS 84  
 Soil Map Unit Name: Fairmount-Rock outcrop complex (FaF) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-126 is an upland plot located adjacent to Wetland 44.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 \_\_\_\_\_  
 Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-126

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
9.	_____	_____	_____																	
10.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	Dactylis glomerata	30	YES		FACU															
2.	Digitaria sanguinalis	25	YES		FACU															
3.	Taraxacum officinale	15	NO		FACU															
4.	Trifolium repens	10	NO		FACU															
5.	Lamium purpureum	5	NO		FACU															
6.	_____	_____	_____		_____															
7.	_____	_____	_____		_____															
8.	_____	_____	_____		_____															
9.	_____	_____	_____		_____															
10.	_____	_____	_____		_____															
11.	_____	_____	_____		_____															
12.	_____	_____	_____	_____																
			85 = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.	_____	_____	_____		_____															
2.	_____	_____	_____		_____															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____	_____																
			_____ = Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																
Hydrophytic vegetation is not dominant.																				





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-127  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64650 Long: -85.27978 Datum: WGS 84  
 Soil Map Unit Name: Lowell silty clay loam (LwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-127 is representative of PEM Wetland 45.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
---	--

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

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Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-127

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%; text-align: center;">Total % Cover of</td> <td style="width: 40%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
_____ = Total Cover																				
<b>Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Herb Stratum (Plot Size: <u>5 ft. radius</u> )</b>																				
1. <u>Lolium arundinacea</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>																	
2. <u>Carex sp.</u>	<u>25</u>	<u>YES</u>	<u>N/A</u>																	
3. <u>Juncus effusus</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>																	
4. <u>Solidago canadensis</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
5. <u>Persicaria lapathifolia</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b> Hydrophytic vegetation is dominant.																				

**SOIL**

**Sampling Point:** DP-127

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/2	95	7.5YR 5/6	5	C	M+PL	SiCL	
8-16	10YR 5/1	90	7.5YR 4/6	10	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<b>Indicators for Problematic Hydric Soils<sup>3</sup></b> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
Hydric soil indicator is present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-128  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64662 Long: -85.27987 Datum: WGS 84  
 Soil Map Unit Name: Lowell silty clay loam (LwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-128 is an upland plot located adjacent to Wetland 45.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
--	---

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

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Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-128

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Plantago major</u>	<u>30</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Lolium arundinacea</u>	<u>20</u>	<u>YES</u>		<u>FAC</u>															
3.	<u>Lamium purpureum</u>	<u>20</u>	<u>YES</u>		<u>FACU</u>															
4.	<u>Trifolium repens</u>	<u>15</u>	<u>NO</u>		<u>FACU</u>															
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
			<u>85</u> = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.																				

**SOIL**

**Sampling Point:** DP-128

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/3	100					SiCL	
12-18	10YR 5/3	95	7.5YR 4/6	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-129  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.648786 Long: -85.280069 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: PUBHh

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 46, a PFO wetland dominated by black willow and graminoids. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/>	No _____
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		

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

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	25	Yes	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		<u>25</u>	= Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Salix nigra	25	Yes	OBL
2.	Acer rubrum	5	No	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		<u>30</u>	= Total Cover	
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Dactylis glomerata	50	Yes	FACU
2.	Typha latifolia	15	Yes	OBL
3.	Carex sp.	10	No	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>75</u>	= Total Cover	
Woody Vine Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
			= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No           

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/2	90	7.5YR 4/6	10	C	M + PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></p>
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**Remarks:**  
 Hydric soil indicators were observed; Parameter met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-130  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.64891 Long: -85.28009 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**DP-130 is an upland plot located adjacent to PEM Wetland 46.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Water Table Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u> Depth (inches): _____	

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

Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-130

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
					<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	(A) (B)	Prevalence Index = B/A =
Total % Cover of	Multiply by:																			
OBL species	x 1 =																			
FACW species	x 2 =																			
FAC species	x 3 =																			
FACU species	x 4 =																			
UPL species	x 5 =																			
Column Totals:	(A) (B)																			
Prevalence Index = B/A =																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1.	<u>Prunus serotina</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>																
2.	<u>Acer rubrum</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>																
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
		<u>55</u>		= Total Cover																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤ 3.0' <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Solidago canadensis</u>	<u>20</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Lamium purpureum</u>	<u>20</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Allium canadense</u>	<u>15</u>	<u>YES</u>		<u>FACU</u>															
4.	<u>Rubus allegheniensis</u>	<u>15</u>	<u>YES</u>		<u>FACU</u>															
5.	<u>Symphoricarpos orbiculatus</u>	<u>5</u>	<u>NO</u>		<u>FACU</u>															
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
		<u>75</u>		= Total Cover																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
				= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>        </u> No <u>  ✓  </u>																
Hydrophytic vegetation is not dominant.																				

**SOIL**

**Sampling Point:** DP-130

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 5/3	100					SiCL	
8-18	10YR 4/4	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-131  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toe-of-slope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65003 Long: -85.27702 Datum: WGS 84  
 Soil Map Unit Name: Faywood silty clay (FwC3) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

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

**DP-131 is an upland plot located in a grassy swale west of Ephemeral Stream 63.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Water Table Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u> Depth (inches): _____	

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

Remarks:

**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-131

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
					<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1.	<u>Sorghum halepense</u>	<u>40</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Tridens flavus</u>	<u>25</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Daucus carota</u>	<u>20</u>	<u>YES</u>		<u>UPL</u>															
4.	<u>Solidago canadensis</u>	<u>15</u>	<u>NO</u>		<u>FACU</u>															
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
Remarks: (Include photo numbers here or on a separate sheet.) <b>Hydrophytic vegetation is not dominant.</b>																				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-132  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.650693 Long: -85.278785 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 47, a PFO fringe wetland off of Open Water 51. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/> No _____	
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>14</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>11</u>		

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

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-132

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. <u>Salix nigra</u>	<u>30</u>	Yes	OBL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>30</u> = Total Cover																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )																				
1. <u>Salix nigra</u>	<u>25</u>	Yes	OBL	<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>25</u> = Total Cover																				
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <u>Phalaris arundinacea</u>	<u>90</u>	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Cinna arundinacea</u>	<u>5</u>	No	FACW																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>95</u> = Total Cover																				
<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.

**SOIL**

**Sampling Point:**

DP-132

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/2	95	10YR 4/6	5	C	PL	SiCL	
8-16	10YR 5/2	90	7.5YR 4/6	10	C	M + PL	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes  No

**Remarks:**

Hydric soil indicators were observed; Parameter met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-133  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.650575 Long: -85.278881 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percents slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of upland conditions adjacent to Wetland 47. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:  
**Wetland hydrology indicators were not present; Parameter not met.**

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>4</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>410</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.73</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup></p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p><b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.26 ft. in height</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	Total % Cover of	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>410</u> (B)	Prevalence Index = B/A = <u>3.73</u>	
Total % Cover of	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>30</u>	x 3 = <u>90</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>410</u> (B)																			
Prevalence Index = B/A = <u>3.73</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )																				
1. <i>Rosa multiflora</i>	15	Yes	FACU																	
2. <i>Prunus serotina</i>	5	Yes	FACU																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <i>Solidago altissima</i>	25	Yes	FACU																	
2. <i>Symphotrichum pilosum</i>	25	Yes	FAC																	
3. <i>Trifolium pratense</i>	15	No	FACU																	
4. <i>Schedonorus arundinaceus</i>	10	No	FACU																	
5. <i>Asclepias syriaca</i>	10	No	FACU																	
6. <i>Vernonia gigantea</i>	5	No	FAC																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
			= Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
			= Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)																				
No hydrophytic vegetation indicators were present; Parameter not met.																				

**SOIL**

**Sampling Point:**

DP-133

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 5/3	100					SiCL	
4-12	10YR 5/4	95	7.5YR 5/6	5	C	M	SiCL	
12								Restrictive Rock Layer

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic Sol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: Rock  
 Depth (inches): 12"

**Hydric Soil Present?**

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-134  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Upland swale Local relief (concave, convex, none): Slightly concave Slope (%): 1-2  
 Subregion (LRR or MRLA): LRR N Lat: 37.651760 Long: -85.279702 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6-12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland swale conditions adjacent to Wetland 48. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

N/A

Remarks:

Wetland hydrology indicators were not present; Parameter not met.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-134

	Absolute % Cover	Dominant Species?	Indicator Status																																									
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)</p>																																								
1.																																												
2.																																												
3.																																												
4.																																												
5.																																												
6.																																												
7.																																												
8.																																												
			= Total Cover																																									
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )				<p><b>Prevalence Index worksheet:</b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Total % Cover of</th> <th style="width:10%;"></th> <th style="width:10%; text-align: center;">Multiply by:</th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>25</u></td> <td></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>70</u></td> <td></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>280</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;">(A)</td> <td></td> <td style="text-align: center;"><u>355</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.74</u></td> </tr> </tbody> </table>		Total % Cover of		Multiply by:		OBL species	<u>0</u>		x 1 =	<u>0</u>	FACW species	<u>0</u>		x 2 =	<u>0</u>	FAC species	<u>25</u>		x 3 =	<u>75</u>	FACU species	<u>70</u>		x 4 =	<u>280</u>	UPL species	<u>0</u>		x 5 =	<u>0</u>	Column Totals:	<u>95</u>	(A)		<u>355</u> (B)	Prevalence Index = B/A =				<u>3.74</u>
	Total % Cover of		Multiply by:																																									
OBL species	<u>0</u>		x 1 =		<u>0</u>																																							
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FAC species	<u>25</u>		x 3 =		<u>75</u>																																							
FACU species	<u>70</u>		x 4 =		<u>280</u>																																							
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Prevalence Index = B/A =					<u>3.74</u>																																							
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<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup></p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p>																																								
1.	<u>Solidago altissima</u>	<u>30</u>	<u>Yes</u>		<u>FACU</u>																																							
2.	<u>Symphotrichum pilosum</u>	<u>25</u>	<u>Yes</u>		<u>FAC</u>																																							
3.	<u>Sorghum halepense</u>	<u>20</u>	<u>Yes</u>		<u>FACU</u>																																							
4.	<u>Potentilla indica</u>	<u>10</u>	<u>No</u>		<u>FACU</u>																																							
5.	<u>Schedonorus arundinaceus</u>	<u>10</u>	<u>No</u>		<u>FACU</u>																																							
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<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<p><b>Definitions of Vegetation Strata:</b></p> <p><b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.</p> <p><b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.</p> <p><b>Woody vines</b> - All woody vines greater than 3.26 ft. in height</p>																																								
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Remarks: (Include photo numbers here or on a separate sheet.)				<p><b>Hydrophytic Vegetation Present?</b></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>																																								
<p>No hydrophytic vegetation indicators were present; Parameter not met.</p>																																												

**SOIL**

**Sampling Point:**

DP-134

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/3	100					SiCL	
8-18	10YR 5/3	95	7.5YR 5/6	5	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-135  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MRLA): LRR N Lat: 37.652094 Long: -85.279830 Datum: NAD83  
 Soil Map Unit Name: Lowell-Faywood silt loams, 6 to 12 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

Plot is representative of Wetland 48, a PSS fringe wetland off of Open Water 52. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

N/A

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-135

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. <i>Salix nigra</i>	40	Yes	OBL																	
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <i>Carex lurida</i>	40	Yes	OBL																	
2. <i>Packera aurea</i>	20	Yes	FACW																	
3. <i>Juncus effusus</i>	5	No	FACW																	
4. <i>Symphotrichum pilosum</i>	5	No	FAC																	
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
			= Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
				<b>Hydrophytic Vegetation Present?</b>  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	2.5Y 4/2	90	7.5YR 5/6	10	C	M+ PL	SiCL	
4-16	2.5Y 5/2	85	7.5YR 5/6	15	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**  
 Hydric soil indicators were observed; Parameter met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-136  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.651633 Long: -85.278700 Datum: NAD83  
 Soil Map Unit Name: Lowell-Sandview silt loams, 2 to 6 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
**Plot is representative of Wetland 49, a PEM wetland. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes <input checked="" type="checkbox"/> No _____	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>5"</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>1"</u>		

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

Remarks:  
**At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.**

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Rosa multiflora	10	Yes	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		10 _____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Carex lurida	30	Yes	OBL
2.	Lolium arundinaceum	25	Yes	FACU
3.	Typha latifolia	20	Yes	OBL
4.	Dulichium arundinaceum	15	No	OBL
5.	Cyperus esculentus	5	No	FACW
6.	Solidago altissima	5	No	FACU
7.				
8.				
9.				
10.				
11.				
12.				
		100 _____ = Total Cover		
Woody Vine Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species <u>65</u>	x 1 = <u>65</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>110</u> (A)	<u>235</u> (B)

Prevalence Index = B/A = 2.14

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

Hydrophytic vegetation indicator 3 (Prevalence Test) was present; Parameter met.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/8/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-137  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.65141 Long: -85.27869 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Sandview silt loams (uLsoB) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**DP-137 is an upland plot located adjacent to Wetland 49.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Water Table Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u> Depth (inches): _____	

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

Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-137

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. <u>Celtis occidentalis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Carya ovata</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Quercus rubra</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
4. <u>Quercus alba</u>	<u>15</u>	<u>NO</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>95</u>	<u>= Total Cover</u>																		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. <u>Fraxinus americana</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	<u>15</u>	<u>= Total Cover</u>																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤ 3.0' <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Symphoricarpos orbiculatus</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Lamium purpureum</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. <u>Rubus allegheniensis</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>55</u>	<u>= Total Cover</u>																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	<u>= Total Cover</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.																				



**SOIL**

**Sampling Point:** DP-137

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 4/3	100					SiL	
9-18	10YR 4/6	80	10YR 4/3	20	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**

No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-138  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Slightly concave Slope (%): 0-1  
 Subregion (LRR or MRLA): LRR N Lat: 37.605188 Long: -85.256961 Datum: NAD83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of Wetland 50, a PEM wetland. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present?	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		Yes <input checked="" type="checkbox"/>

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

Remarks:  
 At least one primary or two secondary indicators of wetland hydrology were present; Parameter met.

Tree Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Juncus effusus</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Carex lurida</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>
3.	<u>Persicaria lapathifolia</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
4.	<u>Solidago altissima</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>85</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

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

- Hydrophytic Vegetation Indicators:**
- \_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - \_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - \_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No \_\_\_\_\_

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

Hydrophytic vegetation indicator 2 (Dominance Test) was present; Parameter met.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100					SiCL	
3-16	10YR 4/2	93	7.5YR 5/6	7	C	M + PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes  No

**Remarks:**

Hydric soil indicators were observed; Parameter met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/7/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-139  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.605075 Long: -85.256820 Datum: NAD83  
 Soil Map Unit Name: Lowell silty clay loam, 6 to 12 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

Remarks: Explain alternative procedures here or in a separate report.)  
 Plot is representative of upland conditions adjacent to Wetland 50. The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>					
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		

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

Remarks:  
 Wetland hydrology indicators were not present; Parameter not met.

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-139

<u>Tree Stratum</u> (Plot Size: <u>30 ft. radius</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		_____ = Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft. radius</u> )				
1.	Rosa multiflora	10	Yes	FACU
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		_____ = Total Cover		
<u>Herb Stratum</u> (Plot Size: <u>5 ft. radius</u> )				
1.	Lolium arundinaceum	50	Yes	FACU
2.	Phleum pratense	25	Yes	FACU
3.	Poa pratensis	20	No	FACU
4.	Symphyotrichum pilosum	10	No	FAC
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		_____ = Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: <u>30 ft. radius</u> )				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>105</u>	x 4 = <u>420</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>450</u> (B)
Prevalence Index = B/A = <u>3.91</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤ 3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - 5 - Problematic Hydrophytic Vegetation <sup>1</sup>
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

No hydrophytic vegetation indicators were present; Parameter not met.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 4/3	100					SiCL	
9-18	10YR 4/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histic (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_

No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-140  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63576 Long: -85.27262 Datum: WGS 84  
 Soil Map Unit Name: Faywood silty clay loam (FaC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-140 is an upland plot located adjacent to Ephemeral Stream 78.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**



**VEGETATION** - Use scientific names of plants

Sampling Point: DP-140

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. <u>Celtis occidentalis</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Prunus serotina</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>55</u>	<u>      </u> = Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. <u>Celtis occidentalis</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	<u>20</u>	<u>      </u> = Total Cover																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>      </u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤ 3.0' <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Euonymus fortunei</u>	<u>60</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Rosa multiflora</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>80</u>	<u>      </u> = Total Cover																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1. <u>Euonymus fortunei</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	<u>15</u>	<u>      </u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.				<b>Hydrophytic Vegetation Present?</b>  Yes _____ No <input checked="" type="checkbox"/>																



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-141  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MRLA): LRR N Lat: 37.63644 Long: -85.27173 Datum: WGS 84  
 Soil Map Unit Name: Faywood silty clay loam (FaC2) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-141 is an upland plot located adjacent to Intermittent Steam 44.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 \_\_\_\_\_  
 Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-141

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
1. <u>Celtis occidentalis</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Fraxinus americana</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>30</u>	<u>= Total Cover</u>		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. <u>Celtis occidentalis</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
	<u>15</u>	<u>= Total Cover</u>		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Microstegium vimineum</u>	<u>60</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Verbesina alternifolia</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Rubus allegheniensis</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>100</u>	<u>= Total Cover</u>		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
<b>Hydrophytic Vegetation Present?</b>				
Yes _____		No <input checked="" type="checkbox"/>		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.				

**SOIL**

**Sampling Point:** DP-141

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/3	100					SiL	
3-12	10YR 4/3	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-142  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63690 Long: -85.26758 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

**DP-142 is representative of PEM Wetland 53. Vegetation was recently mowed.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)	

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/>	No _____
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>12</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches): <u>10</u>		

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

Remarks:

**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-142

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )</b>																				
1. <u>Salix nigra</u>	15	YES	OBL																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
15 = Total Cover																				
<b>Herb Stratum (Plot Size: <u>5 ft. radius</u> )</b>																				
1. <u>Phalaris arundinacea</u>	70	YES	FACW																	
2. <u>Apocynum cannabinum</u>	10	NO	FACU																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
80 = Total Cover																				
<b>Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant.																				





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-143  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63699 Long: -85.26757 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-143 is an upland plot located adjacent to Wetland 53. Vegetation was recently mowed.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-143

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
					<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>340</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.4</u></td> </tr> </table>	Total % Cover of	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species	x 5 =	Column Totals: <u>90</u> (A)	<u>340</u> (B)	Prevalence Index = B/A = <u>3.4</u>
Total % Cover of	Multiply by:																			
OBL species	x 1 =																			
FACW species	x 2 =																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>70</u>	x 4 = <u>280</u>																			
UPL species	x 5 =																			
Column Totals: <u>90</u> (A)	<u>340</u> (B)																			
Prevalence Index = B/A = <u>3.4</u>																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤ 3.0' <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1.	<u>Apocynum cannabinum</u>	<u>70</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Lolium arundinacea</u>	<u>20</u>	<u>YES</u>		<u>FAC</u>															
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
		<u>90</u>																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height  <b>Hydrophytic Vegetation Present?</b>  Yes <u>    </u> No <u>  ✓  </u>																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
Remarks: (Include photo numbers here or on a separate sheet.)  Hydrophytic vegetation is not dominant.																				

**SOIL**

**Sampling Point:** DP-143

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/3	100					SiCL	
4-12	10YR 5/4	100					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <b>(LRR N)</b> <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <b>(LRR N, MLRA 147, 148)</b> <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <b>(MLRA 147, 148)</b> <input type="checkbox"/> Thin Dark Surface (S9) <b>(MLRA 147, 148)</b> <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) <b>(LRR N, MLRA 136)</b> <input type="checkbox"/> Umbric Surface (F13) <b>(MLRA 136,122)</b> <input type="checkbox"/> Piedmont Floodplain Soils (F19) <b>(MLRA 148)</b> <input type="checkbox"/> Red Parent Material (F21) <b>(MLRA 127,147)</b>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) <b>(LRR N)</b> <input type="checkbox"/> Coast Prairie Redox (A16) <b>(MLRA 147, 148)</b> <input type="checkbox"/> Piedmont Floodplain Soils (F19) <b>(MLRA 147, 148)</b> <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-144  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toe-of-slope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63535 Long: -85.26847 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			

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

**DP-144 is representative of PEM Wetland 54. Vegetation recently mowed.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)	

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____	Yes <u>✓</u>	No _____
Water Table Present?	Yes <u>✓</u>	No _____	Depth (inches): <u>11</u>		
Saturation Present? (includes capillary fringe)	Yes <u>✓</u>	No _____	Depth (inches): <u>9</u>		

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

Remarks:

**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-144

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
					<b>Prevalence Index worksheet:</b> Total % Cover of _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
_____ = Total Cover					
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )					
1.	Salix nigra	15	YES	OBL	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation x _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
15 _____ = Total Cover					
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )					
1.	Typha latifolia	40	YES		OBL
2.	Juncus effusus	15	YES		FACW
3.	Apocynum cannabinum	15	YES		FACU
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height	
70 _____ = Total Cover					
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )					
1.					
2.					
3.					
4.					
5.					
6.					
					<b>Hydrophytic Vegetation Present?</b>  Yes <input checked="" type="checkbox"/> No _____
_____ = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					
Hydrophytic vegetation is dominant.					



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-145  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63546 Long: -85.26846 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-145 is an upland plot located adjacent to Wetland 54.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-145

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Zea mays</u>	<u>40</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Apocynum cannabinum</u>	<u>25</u>	<u>YES</u>		<u>FACU</u>															
3.	<u>Setaria pumila</u>	<u>10</u>	<u>NO</u>		<u>FAC</u>															
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
			<u>75</u>	= Total Cover																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
<b>Hydrophytic Vegetation Present?</b>				Yes _____ No <input checked="" type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.)  <u>Hydrophytic vegetation is not dominant.</u>																				



**SOIL**

**Sampling Point:** DP-145

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 5/4	100					CL	
6-12	10YR 5/3	100					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes \_\_\_\_\_ No

**Remarks:**  
No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-146  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toe-of-slope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63333 Long: -85.26817 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-146 is representative of PEM Wetland 55.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	Moss Trim Lines (B18)
_____ Water Marks (B1)	Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	Crayfish Burrows (C8)
_____ Drift Deposits (B3)	Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	--

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

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Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: \_\_\_\_\_ DP-146

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.	_____	_____	_____																	
2.	_____	_____	_____																	
3.	_____	_____	_____																	
4.	_____	_____	_____																	
5.	_____	_____	_____																	
6.	_____	_____	_____																	
7.	_____	_____	_____																	
8.	_____	_____	_____																	
9.	_____	_____	_____																	
10.	_____	_____	_____																	
			_____ = Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Typha latifolia</u>	<u>70</u>	<u>YES</u>		<u>OBL</u>															
2.	<u>Rosa multiflora</u>	<u>5</u>	<u>NO</u>		<u>FACU</u>															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____		_____															
7.	_____	_____	_____		_____															
8.	_____	_____	_____		_____															
9.	_____	_____	_____		_____															
10.	_____	_____	_____		_____															
11.	_____	_____	_____		_____															
12.	_____	_____	_____	_____																
			_____ = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.	_____	_____	_____		_____															
2.	_____	_____	_____		_____															
3.	_____	_____	_____		_____															
4.	_____	_____	_____		_____															
5.	_____	_____	_____		_____															
6.	_____	_____	_____	_____																
			_____ = Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
Hydrophytic vegetation is dominant.																				

**SOIL**

**Sampling Point:** DP-146

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/2	95	5YR 4/6	5	C	M+PL	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes  No

**Remarks:**

Hydric soil indicator is present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-147  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63343 Long: -85.26824 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-147 is an upland plot located adjacent to Wetland 55.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
--	---

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

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Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-147

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			= Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			= Total Cover																	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Apocynum cannabinum</u>	<u>40</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Conium maculatum</u>	<u>10</u>	<u>NO</u>		<u>FACW</u>															
3.	<u>Allium canadense</u>	<u>10</u>	<u>NO</u>		<u>FACU</u>															
4.	<u>Lamium purpureum</u>	<u>10</u>	<u>NO</u>		<u>FACU</u>															
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
			70 = Total Cover																	
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
			= Total Cover																	
<b>Hydrophytic Vegetation Present?</b>																				
Yes _____		No <input checked="" type="checkbox"/>																		
Remarks: (Include photo numbers here or on a separate sheet.)																				
Hydrophytic vegetation is not dominant.																				

**SOIL**

**Sampling Point:** DP-147

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup></b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F17)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)		

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-148  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toe-of-slope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63323 Long: -85.27281 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP148 is representative of PSS Wetland 56.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Remarks:  
**Wetland hydrology indicators present.**



**VEGETATION - Use scientific names of plants**

Sampling Point: DP-148

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )																				
1. <u>Salix nigra</u>	<u>10</u>	<u>YES</u>	<u>OBL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
	<u>10</u>	<u>        </u> = Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1. <u>Salix nigra</u>	<u>50</u>	<u>YES</u>	<u>OBL</u>	<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
	<u>50</u>	<u>        </u> = Total Cover																		
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <u>Typha latifolia</u>	<u>15</u>	<u>YES</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>        </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>        </u> 3 - Prevalence Index is ≤ 3.0' <u>        </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Scirpus atrovirens</u>	<u>10</u>	<u>YES</u>	<u>OBL</u>																	
3. <u>Carex sp.</u>	<u>10</u>	<u>YES</u>	<u>N/A</u>																	
4. <u>Phalaris arundinacea</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>45</u>	<u>        </u> = Total Cover																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	_____ = Total Cover																		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant.																				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-149  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63318 Long: -85.27280 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-149 is an upland plot located adjacent to Wetland 56.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>✓</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>✓</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>✓</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>✓</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-149

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
_____ = Total Cover																				
<b>Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Herb Stratum (Plot Size: <u>5 ft. radius</u> )</b>																				
1. <u>Zea mays</u>	<u>80</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Allium canadense</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ = Total Cover																				
<b>Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				

**Hydrophytic Vegetation Indicators:**

\_\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_\_\_ 2 - Dominance Test is >50%

\_\_\_\_\_ 3 - Prevalence Index is ≤ 3.0'

\_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_\_\_ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes \_\_\_\_\_ No

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

Hydrophytic vegetation is not dominant.



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-150  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63417 Long: -85.27417 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

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

**DP-150 is representative of PEM Wetland 57. Vegetation recently mowed.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)	
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)	
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)	
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)	
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)	
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)	
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)	
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)	
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)	

<b>Field Observations:</b>				Wetland Hydrology Present?	
Surface Water Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches):	<u>2</u>	Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches):	<u>9</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No _____	Depth (inches):	<u>0</u>	

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

Remarks:

**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-150

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1. <i>Salix nigra</i>	5	YES	OBL																	
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> X _____ 1 - Rapid Test for Hydrophytic Vegetation X _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1. <i>Typha latifolia</i>	60	YES	OBL																	
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
_____ = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b>  Yes <input checked="" type="checkbox"/> No _____																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant.																				





**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-151  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63425 Long: -85.27388 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>	
Wetland Hydrology Present?	Yes _____	No <u>✓</u>	

Remarks: Explain alternative procedures here or in a separate report.)  
**DP-151 is an upland plot located adjacent to Wetland 57.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>		Wetland Hydrology Present?  Yes _____ No <u>✓</u>
Surface Water Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Water Table Present?	Yes _____ No <u>✓</u> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>✓</u> Depth (inches): _____	

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

Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-151

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
					<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15-ft. radius</u> )																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )																				
1.	<u>Zea mays</u>	<u>80</u>	<u>YES</u>		<u>FACU</u>															
2.	<u>Lamium purpureum</u>	<u>5</u>	<u>NO</u>		<u>FACU</u>															
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
		<u>85</u>																		
<b>Woody Vine Stratum</b> (Plot Size: <u>30-ft. radius</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
				<b>Hydrophytic Vegetation Present?</b>  Yes _____ No <input checked="" type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.																				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-152  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toe-of-slope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MRLA): LRR N Lat: 37.63728 Long: -85.27250 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Explain alternative procedures here or in a separate report.) <b>DP-152 is representative of PEM Wetland 58.</b>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ True Aquatic Plants (B14)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Moss Trim Lines (B18)
_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Crayfish Burrows (C8)
_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Water Marks (B1)	_____ Stunted or Stressed Plants (D1)
_____ Presence of Reduced Iron (C4)	_____ Geomorphic Position (D2)
_____ Sediment Deposits (B2)	_____ Shallow Aquitard (D3)
_____ Drift Deposits (B3)	_____ Microtopographic Relief (D4)
_____ Algal Mat or Crust (B4)	_____ FAC-Neutral Test (D5)
_____ Iron Deposits (B5)	
_____ Inundation Visible on Aerial Imagery (B7)	
_____ Water-Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ Recent Iron Reduction Tiled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 \_\_\_\_\_  
 Remarks:  
**Wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-152

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix nigra</u>	<u>5</u>	<u>YES</u>	<u>OBL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>5</u>	<u>5</u> = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix nigra</u>	<u>5</u>	<u>YES</u>	<u>OBL</u>	<b>Prevalence Index worksheet:</b> Total % Cover of _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. <u>Acer rubrum</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
	<u>10</u>	<u>10</u> = Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Carex sp.</u>	<u>25</u>	<u>YES</u>	<u>N/A</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation x _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Phalaris arundinacea</u>	<u>25</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Juncus effusus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
4. <u>Rubus allegheniensis</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
5. <u>Typha latifolia</u>	<u>15</u>	<u>YES</u>	<u>OBL</u>	
6. <u>Solidago gigantea</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>110</u>	<u>110</u> = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____	_____ = Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydrophytic vegetation is dominant.				



**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/13/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-153  
 Investigator(s): J. Parsons, L. Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-10  
 Subregion (LRR or MRLA): LRR N Lat: 37.63719 Long: -85.27227 Datum: WGS 84  
 Soil Map Unit Name: Lowell-Faywood silt loams (uLfc) NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>✓</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes _____	No <u>✓</u>			
Wetland Hydrology Present?	Yes _____	No <u>✓</u>			

Remarks: Explain alternative procedures here or in a separate report.)  
**DP-153 is an upland plot located adjacent to Wetland 58.**

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B18)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction Tiled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>					Wetland Hydrology Present?
Surface Water Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Water Table Present?	Yes _____	No <u>✓</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes _____	No <u>✓</u>	Depth (inches): _____		Yes _____ No <u>✓</u>

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

Remarks:  
**No wetland hydrology indicators present.**

**VEGETATION** - Use scientific names of plants

Sampling Point: DP-153

Tree Stratum (Plot Size: <u>30 ft. radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0' _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
_____ = Total Cover																				
_____ = Total Cover																				
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_____ = Total Cover																				
_____ = Total Cover				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.  <b>Woody vines</b> - All woody vines greater than 3.26 ft. in height																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b>  Yes _____ No <input checked="" type="checkbox"/>																
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant.																				



**SOIL**

**Sampling Point:** DP-153

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 4/4	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<p><b>Hydric Soil Indicators:</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> ) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F17) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> ) <input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136,122</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> ) <input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127,147</b> )	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup></b></p> <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Coast Prairie Redox (A16) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_      No

**Remarks:**  
 No hydric soil indicators are present.

**WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region**

Project/Site: Frontier Solar City/County: Marion and Washington Sampling Date: 12/6/2023  
 Applicant/Owner: BrightNight, LLC State: KY Sampling Point: DP-154  
 Investigator(s): J.Parsons, L.Schneider Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): \_\_\_\_\_  
 Subregion (LRR or MRLA): LRR N Lat: 37.648834 Long: -85.265382 Datum: NAD83  
 Soil Map Unit Name: Nolin silt loam, 0 to 2 percent slopes, occasionally flooded NWI Classification: N/A

Are climatic/hydrologic conditions of the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?  
 Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes  No \_\_\_\_\_

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			

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

Plot is representative of upland conditions adjacent to a perennial stream (Cartwright Creek). The Antecedent Precipitation Tool indicates that "Normal Conditions" were present at the time of the investigation.

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>				Wetland Hydrology Present?  Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

N/A

Remarks:

Wetland hydrology indicators were not present; Parameter not met.

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
<b>Herb Stratum</b> (Plot Size: <u>5 ft. radius</u> )			
1. <i>Ambrosia trifida</i>	40	Yes	FAC
2. <i>Anthriscus sylvestris</i>	25	Yes	UPL
3. <i>Sorghum halepense</i>	25	Yes	FACU
4. <i>Galium tinctorium</i>	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
<b>Woody Vine Stratum</b> (Plot Size: <u>30 ft. radius</u> )			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

**Prevalence Index worksheet:**

Total % Cover of		Multiply by:
OBL species	<u>5</u>	x 1 = <u>5</u>
FACW species	<u>0</u>	x 2 = <u>0</u>
FAC species	<u>40</u>	x 3 = <u>120</u>
FACU species	<u>25</u>	x 4 = <u>100</u>
UPL species	<u>25</u>	x 5 = <u>125</u>
Column Totals:	<u>95</u> (A)	<u>350</u> (B)
Prevalence Index = B/A =		<u>3.68</u>

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

5 - Problematic Hydrophytic Vegetation <sup>1</sup>

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

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

**Sapling/shrub** - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall.

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

**Woody vines** - All woody vines greater than 3.26 ft. in height

**Hydrophytic Vegetation Present?**

Yes  No

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

No hydrophytic vegetation indicators were present; Parameter not met.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F17)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136,122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127,147)

**Indicators for Problematic Hydric Soils<sup>3</sup>**

- 2 cm Muck (A10) (LRR N)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 147, 148)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes \_\_\_\_\_ No

**Remarks:**

Hydric soil indicators were not observed; Parameter not met.