Wetland and Waterbody Delineation Report

Geronimo Power

Exie Solar Project

Version 2.0
8/28/2025

Wetland and Waterbody Delineation Report

prepared for

Geronimo Power

Exie Solar Project
Green County, KY

Version 2.0
8/28/2025

prepared by
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EXECUTIVE SUMMARY

Geronimo Power is evaluating a site in Green County, Kentucky (KY) for potential development of a solar energy facility (Exie Project or the Project). Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was contracted by Geronimo Power to provide wetland delineation services for the proposed Project, specifically potential parcels upon which solar arrays and other appurtenant facility components may be installed (**Figure 1, Appendix A**). The Survey Area consists of approximately 1,330 acres of land that is predominantly used for pasture and agriculture. The Project is located approximately 1.8 miles west of Exie, Kentucky. The Project was surveyed for wetlands, waterbodies, and other ecological resources on November 4 through November 8, 2024.

Based on field assessments, the Survey Area is composed of three distinct vegetative/land use communities: active pasture, active agriculture, and mixed hardwood forest. A total of 80 aquatic resources were identified within the Survey Area for the Project including 31 ephemeral, 8 intermittent, 3 perennial streams, 25 ponds, and 13 wetlands. These features, if impacted by the Project, may be subject to regulatory requirements under Section 404 or Section 401 of the Clean Water Act (CWA).

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LIST OF ABBREVIATIONS

Abbreviation	Term/Phrase/Name
1987 Manual	1987 Corps of Engineers Wetlands Delineation Manual
° F	Degrees Fahrenheit
APT	Antecedent Precipitation Tool
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
Court	U.S. Supreme Court
CWA	Clean Water Act
FEMA	Federal Emergency Management Agency
GNSS	Global Navigation Satellite System
HUC	Hydrologic Unit Code
MLRA	Major Land Resource Area
NAIP	National Agriculture Imagery Program
NFHL	National Flood Hazard Layer
NHD	National Hydrography Dataset
NLCD	National Land Cover Database
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark
PAB	Palustrine Aquatic Bed
PCN	Pre-Construction Notification
PEM	Palustrine Emergent Wetland
PFO	Palustrine Forested Wetland
PSS	Palustrine Scrub-shrub Wetland
PUB	Palustrine Unconsolidated Bottom - Pond
Regional Supplement	2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain Piedmont Region – Version 2.0
RHA	Rivers and Harbors Act
Sackett	Sackett vs U.S. Environmental Protection Agency

Abbreviation	Term/Phrase/Name
SSURGO	Soil Survey Geographic
Survey Area	The approximately 1,330 acres that were evaluated during field surveys
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Waters of the U.S.

1.0 INTRODUCTION

Burns & McDonnell was contracted by Geronimo Power, to conduct a wetland and waterbody delineation to identify potential impacts to features that may be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) as designated by Section 404 or 401 of the CWA and defined as Waters of the US (WOTUS) in accordance with current USACE and Environmental Protection Agency (EPA) guidance. The Survey Area consists of approximately 1,330 acres of land that is predominantly used for pasture and agriculture with fragmented wooded areas. The Project is located approximately 1.8 miles west of Exie, Kentucky. The Project was surveyed for wetlands, waterbodies, and other ecological resources on November 4 through November 8, 2024.

Burns & McDonnell biologists conducted a wetland and waterbody delineation for the Project to evaluate the presence of wetlands and other waterbodies, including streams, drainages, and ponds. The delineation was conducted within the Survey Area, as identified by Geronimo Power. The Survey Area included approximately 1,330 acres. Based on results of this delineation, in addition to results from other environmental, cultural, and civil surveys, it is anticipated that Geronimo Power will implement a project design that minimizes environmental impacts to the greatest extent practicable.

2.0 REGULATORY FRAMEWORK

Under the authority of Section 404 of the CWA and Section 10 of the Rivers and Harbors Act (RHA), the USACE regulates the discharge of dredged and fill material into all WOTUS, including adjacent wetlands.

Waters of the U.S. (WOTUS), including wetlands, are regulated by the U.S. Army Corps of Engineers (USACE) under Sections 404 and 401 of the 1972 Clean Water Act (CWA), as amended (33 U.S.C. §1251 et seq.). Specifically, WOTUS are those waters which are used, could have been used in the past, or are susceptible for use in interstate or intrastate commerce or foreign commerce. This definition has historically included tributaries and wetlands adjacent to those waters, provided a significant nexus showing a definable surface connection to a WOTUS can be demonstrated. WOTUS, as historically defined, does not include waters which are "isolated" or where a surface connection cannot be demonstrated. Under the authority of Section 404 of the CWA and Section 10 of the Rivers and Harbors Act (RHA), the USACE regulates the discharge of dredged and fill material into all WOTUS, including adjacent wetlands.

On May 25, 2023, the U.S. Supreme Court (Court) issued a decision in *Sackett vs. U.S. Environmental Protection Agency* (*Sackett*) that eliminated the USACE's use of the "significant nexus" test to determine jurisdiction over wetlands and waterbodies under the CWA. The Court in *Sackett* established a "new" two-step analysis to determine whether wetlands and other adjacent waters are WOTUS and subject to CWA requirements. On August 29, 2023, the US Environmental Protection Agency (USEPA) and USACE issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule, published in the Federal Register on January 18, 2023. This final rule conforms to the definition of WOTUS to the Court's May 25, 2023, decision in the *Sackett* case and ultimately went into effect on September 9, 2023.

As a result of ongoing litigation associated with the January 2023 Rule, the USACE and EPA are implementing the January 2023 Rule, as amended by the conforming rule, in 23 states (including Kentucky), the District of Columbia, and the U.S. Territories. In the other 27 states, and for certain parties, the agencies are interpreting "WOTUS" consistent with the pre-2015 regulatory definition and the Court's decision in *Sackett* until further notice. Subsequently, the recommended jurisdictional status of the potential wetlands and other features onsite would be based on the January 2023 Rule and consistent with the *Sackett* ruling. Wetlands are defined as those waters which are saturated or inundated by surface or groundwater at a duration sufficient to support hydrophytic vegetation in normal circumstances and have a predominance of hydric soils.

It should be noted that jurisdictional recommendations noted herein are subject to confirmation from the USACE and/or USEPA and are for informational and planning purposes only. Should Geronimo Power decide to develop the Project, an Approved Jurisdictional Determination or Preliminary Jurisdictional Determination from the USACE should be obtained to confirm jurisdictional status in accordance with the most recent regulatory guidance defining WOTUS.

3.0 METHODOLOGY

The following discussions summarize the methods used for the review of existing data and the wetland delineation.

3.1 Existing Data Review

Burns & McDonnell reviewed available background information for the proposed Project prior to conducting the pedestrian surveys. This available background information included:

- U.S. Geological Survey (USGS) 7.5-minute topographic maps (*Exie, KY* quadrangle),
- National Agriculture Imagery Program (NAIP) aerial photography (2023),
- USGS National Hydrography Dataset (NHD),
- U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory (NWI) maps,
- Federal Emergency Management Agency (FEMA) 2011 National Flood Hazard Layer (NFHL),
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) 2024 Soil Survey Geographic (SSURGO) digital data for Green County, KY,
- USGS National Land Cover Database (NLCD), and
- USACE Antecedent Precipitation Tool (APT)

Figures 1 through 3 in **Appendix A** depict this data. A summary of historic and recent rainfall data is provided in Section 3, below and shown in Appendix D.

3.2 Environmental Field Survey

A wetland delineation was completed November 4 through November 8, 2024. The delineation was conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual (1987 Manual) and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain Piedmont Region – Version 2.0 (Regional Supplement).

In addition to the field delineation methodology described in the 1987 Manual and Regional Supplement, field staff also targeted areas identified during desktop analysis that contained known or suspected wetland areas or other WOTUS. Wetland data points and photographs were taken as verification of the known or suspected wetland areas or other WOTUS and to confirm the primary non-wetland habitat areas. All wetland points and potential WOTUS were identified on the Project mapping using a Global Navigation Satellite System (GNSS) capable of submeter accuracy.

Wetland (and non-wetland) sample points were established using the 1987 Manual and Regional Supplement based on observations of vegetation, topographic and hydrologic features, transitions in the field, and soils. Soil samples were taken using either a soil probe, hand auger, or shovel to a minimum depth of 18 inches. Munsell Color Charts were used to reference soil matrix, mottle and chroma. Observations were documented through digital photographs representative of each area (**Appendix C**) and on the USACE Eastern Mountain Piedmont Region Wetland Determination Data Forms from the Regional Supplement (**Appendix B**).

3.3 Wetland and Waterbody Classifications

Under typical conditions, wetlands are defined by three key criteria: vegetation, hydrology, and soils. Wetlands in the Survey Area that are anticipated to be jurisdictional are considered part of a palustrine wetland system within either a forested class (PFO), scrub-shrub class (PSS), unconsolidated bottom (PUB), and/or an emergent class (PEM). The NWI mapped wetlands within the Survey Area occurred primarily along stream channels and in wooded areas or within farm ponds visible on aerial imagery. Each wetland was assigned a classification based on the Cowardin Classification System (Cowardin et al 1979) and consisted of the following:

Palustrine forested wetlands (PFO) consist predominantly of trees with at least 30 percent aerial coverage. They typically possess an overstory of tree species and an assortment of saplings, shrubs, herbaceous plants, and vines in the understory. According to the NWI, forested wetlands in the Survey Area consist of broad-leaved deciduous species. This subclass is typically dominated by red maple (*Acer rubrum*), American elm (*Ulmus americana*), ashes (*Fraxinus pennsylvanica and F. nigra),* along with multiple species of oak (*Quercus* spp.).

Palustrine scrub-shrub wetlands (PSS) are defined by having at least 30 percent aerial coverage of woody plants less than 20 feet tall, which includes trees, shrubs, saplings, and woody plants that are stunted due to adverse environmental conditions. This type of wetland may become a PFO or may remain stable. According to NWI, scrub-shrub wetlands in the Survey Area consist of broad-leaved deciduous species. This subclass is typically dominated by Alders (*Alnus* spp.), willows (*Salix* spp.), buttonbush (*Cephalanthus occidentalis*), red osier dogwood (*Cornus stolonifera*), honeycup (*Zenobia pulverulenta*), Douglas' meadowsweet (*Spiraea douglasii*), bog birch (*Betula pumila*), and red maple.

Palustrine emergent wetlands (PEM) contain at least 30 percent aerial coverage of emergent plant species. Vegetative communities within these wetlands are present for most of the growing

season and are typically dominated by perennial plants. According to NWI, typical species of emergent wetlands in the Survey Area include cattails (*Typha* spp.), bulrushes (*Scirpus* spp.), sedges (*Carex* spp.), manna grasses (*Glyceria* spp.), and smartweeds (*Polygonum* spp.).

Palustrine unconsolidated bottom (PUB) wetlands are characterized by the lack of large stable surfaces for plant and animal attachment, with at least 25 percent cover of particles smaller than stones, and a vegetative cover less than 30 percent%. According to NWI, PUBs within the Survey Area are diked or impounded and were created or modified by a barrier that obstructs the inflow or outflow of water.

National Hydrology Dataset indicated there are four stream channels in the Survey Area. The northern Survey Area tributaries flow south and southeast into Greasy Creek. The southern Survey Area tributaries flow south to Little Barren River, located offsite. Stream channels were delineated, and characteristics were recorded including average stream width, bank height, height at ordinary high-water mark (OHWM), water depth, and flow regime. Waterbodies were identified by the presence of an OHWM (USACE 2005) and classified as ephemeral, intermittent, or perennial based on field observations and the following flow regime:

Ephemeral streams are characterized by a lack of a well-defined channel and are primarily charged by precipitation events. Ephemeral streams typically have a poorly defined streambed consisting of unconsolidated materials.

Intermittent streams have a well-defined channel, with little to no vegetation through the channel; however, these streams may not flow year-round. Under typical conditions, intermittent streams only contain water flow in the late winter and early spring when ground water levels are higher, which can be confirmed by soil-based indicators such as a depleted matrix or evidence of reduction oxidation reactions. When water is not flowing, it may be absent or remain in isolated pools. Additionally, evidence of substrate sorting, including scour and deposition, is present.

Perennial streams are typically characterized by a well-defined channel that contains water year-round and is charged by groundwater. Perennial streams typically have a coarse-textured bottom including sand, gravel, cobbles, or rocks in riffles and/or runs.

4.0 RESULTS AND DISCUSSION

The following sections describe the results of the desktop data review and the completed wetland delineation survey.

4.1 Existing Data Review

The initial phase of this study included a comprehensive review and assessment of available information related to the Survey Area and adjacent properties.

4.1.1 Online Mapping and Databases

The existing USGS topographic maps were reviewed to familiarize Burns & McDonnell wetland personnel with the topography and potential locations of wetlands and other water bodies (**Figure Set 2, Appendix A**). The USGS topographic maps indicate the Survey Area crosses open fields and forested areas with gentle slopes. Elevation within the Survey Area ranges from approximately 700 to 900 feet above mean sea level.

A review of FEMA's NFHL indicates four portions of the Survey Area are mapped as Zone A flood zones. Zone A is defined as areas within the Special Flood Hazard Area of the 100-year floodplain (**Figure 4, Appendix A**). These flood zones are primarily associated with Greasy Creek and its tributaries in the north and central portions of the Survey Area.

The 2021 NAIP aerial photography indicates that the Survey Area consists primarily of open pasture and forested areas. The NWI data identified a variety of wetland types, primarily associated with riparian areas along perennial streams. The NHD data identified perennial and intermittent streams (**Figure 4, Appendix A**). Identifying the presence or absence of wetlands or water solely on NWI and NHD data cannot be assumed as an accurate assessment of potentially jurisdictional wetlands or waters. The criteria required to identify potentially jurisdictional wetlands or waters differ between the USFWS and the USACE. As a result, wetlands shown on an NWI map may not be under the jurisdiction of the USACE; likewise, all USACE-jurisdictional wetlands are not always identified on NWI maps. Therefore, a detailed field survey was conducted to identify any wetlands or other water bodies that may be present.

The USDA NRCS SSURGO digital data indicated that portions of 16 soil map units are within the Survey Area, all of which are listed as non-hydric except for one soil map unit, Melvin silt loam (Me). Melvin silt loam is primarily located along the floodplain of Greasy Creek and its tributaries (**Figure 5, Appendix A**). Soils within the Survey Area, as identified in the USDA NRCS geospatial data for Green County, included Caneyville-Frederick silt loams (CaE), Dickson silt loam (DcB), Elk silt loams (ElB), Frankstown silt loam (FkC), Frederick silt loam (FrC), Frederick silty clay loam (FsD3), Lowell-Caneyville silt loams (LoF),

Melvin silt loam (Me), Mountview silt loam (MoB), Newark silt loam (NE), Nolin silt loam (No), Otwood silt loam (OtB), Taft silt loam (Ta), and Water (W).

The Survey Area is within major land resource area (MLRA)-122 (Highland Rim and Pennyroyal), which is diversified with low rolling hills, upland flats, and narrow valleys. The dominant soil orders within this MLRA include Paleudults and Paleudalfsand. Most of this area consists of small and medium size farms, and land use varies between hay and pasture for beef cattle, corn, soybeans, and tobacco production (USDA 2010).

4.1.2 Climate Information

The USACE APT was used to assess the climate conditions in the months leading up to and during the November 4 through 8, 2024 pedestrian survey. The APT provides a standardized method for evaluating precipitation conditions relative to a climate normal, determines the presence of drought conditions, and the approximate dates of wet and dry seasons for a given location.

At the time of the November 2024 pedestrian survey, the APT indicated that the site reconnaissance was conducted during the dry season of the year, and that conditions on site were normal compared to those typically present. The Palmer Drought Severity Index indicated conditions within the Survey Area were mapped as abnormally dry at the time of our field survey. A copy of the USACE APT results is provided in **Appendix D**.

Weather conditions during the field surveys varied from clear to overcast and temperatures ranged from a low of 46 degrees Fahrenheit (°F) to a high of 81°F. Rainfall amounts totaled approximately 0.87 inches, with the precipitation event beginning on November 6 and lasting approximately 32 hours.

4.2 Wetland Delineation Survey

From November 4 to November 8, 2024, a team of Burns and McDonnell wetland scientists conducted a wetland delineation over 1,330 acres of land that is being considered for the siting of the new Exie Solar Project. The field surveys documented average hydrologic conditions, and evaluated multiple parameters in addition to hydrology, including hydric soils, hydrophytic vegetation, and a variety of stream morphological characteristics in order to make resource determinations. Sample plots were established at multiple locations, and wetland determination data forms from the Regional Supplement were completed to characterize potential wetlands and uplands within the Survey Area (**Appendix B**). Vegetation, soil conditions, and hydrologic indicators were recorded at each of these sample plots. Locations of sample plots and other identified features were obtained using GNSS unit capable of sub-meter accuracy. Photographs depicting water bodies, streams, wetlands, and representative field conditions encountered

were taken and are included in **Appendix C**. Additional representative photographs were taken during the delineation to document site conditions where sample plots were not collected. These additional photographs are not included in Appendix C but can be provided upon request. Land cover and delineated wetlands from field surveys are discussed in detail below.

4.2.1 Vegetation and Land Use Communities

The Project is in the USEPA Eastern Highland Rim Ecoregion (Level 4) and is in the Upper Green [Hydrologic Unit Code (HUC) 05110001] watershed. According to the USGS NLCD, the Survey Area is comprised primarily of pasture, agriculture, deciduous forest, and evergreen forest (**Appendix A**). Field personnel encountered similar land uses on site as those identified by the NLCD data, which predominantly consisted of active pasture, active agriculture, and deciduous forest consisting of upland and bottomland forest areas. Descriptions of these land use communities and associated figures are provided in the Protect Species Habitat Assessment Report (under separate cover).

4.2.2 Waters of the US

During the field surveys, a total of 31 ephemeral, 8 intermittent, and 3 perennial streams, 25 open waters, and 13 wetlands were identified within the Survey Area of the Project. Additionally, the USACE Louisville district has not made any official jurisdictional determinations on aquatic resources within the Survey Area for this project at this time. (**Table 3-1, Table 3-2, and Figure 4, Appendix A**).

Streams

Forty-two stream channels, consisting of three stream types (ephemeral, intermittent, and perennial) and totaling 31,683 linear feet were delineated within the Survey Area (**Representative Photographs, Appendix C**). The different stream classifications are summarized in Section 3.3. Further details associated with the stream features are identified in Table 4-1. Coordinates listed for each stream feature discussed in this report are associated with the centroid of each representative feature.

Table 4-1: Waterbodies within the Survey Area

Stream ID[a]	Stream Type	Delineated Length (feet)	Width of Stream at OHWM (feet)	Figure A-4 Page Number
SA01	Ephemeral	458.58	3	1
SA02	Ephemeral	24.92	3	1
SA03	Ephemeral	101.95	2	1
SA04	Intermittent	95.35	3	1
SA05	Ephemeral	46.93	0.75	1
SA06	Ephemeral	1,701.44	4	2
SA07	Ephemeral	570.32	2	2

Stream ID[a]	Stream Type	Delineated Length (feet)	Width of Stream at OHWM (feet)	Figure A-4 Page Number
SA08	Ephemeral	167.29	2	2
SA17	Perennial	170.61	4	30, 32
SA20 (Greasy Creek)	Perennial	11,648.64	25	9, 10, 13, 14, 15, 17, 18, 20, 21
SA21	Intermittent	2,927.37	4	22, 28, 30
SA22	Ephemeral	267.25	2	22
SA23	Ephemeral	100.26	3	28
SA24	Ephemeral	127.09	2	28
SA25	Intermittent	565.59	4	27
SA26	Ephemeral	64.65	2	27
SA27	Ephemeral	65.71	2	17, 21
SA28	Intermittent	2,069.01	4	10, 14
SA29	Intermittent	738.35	3.5	14
SA30	Ephemeral	286.89	2	14
SA33	Ephemeral	840.88	2	13
SA34	Ephemeral	374.33	1	10, 13
SA35	Ephemeral	29.50	2.5	13
SA37	Ephemeral	1,232.98	3	10, 11
SA38	Ephemeral	122.20	1	11
SA39	Ephemeral	186.52	1.5	9
SA42	Ephemeral	399.27	1	9
SA43	Ephemeral	50.95	2	17
SA51	Ephemeral	158.59	3	30, 32
SA52	Intermittent	1,175.76	3	31, 33
SA53	Ephemeral	71.55	1	31
SA54	Intermittent	32.41	3	31
SA55	Ephemeral	303.66	2	33
SA56	Ephemeral	299.06	2	28, 30
SA57	Ephemeral	319.30	2.5	28
SA58	Ephemeral	419.13	1.5	28
SA59	Intermittent	947.86	5	19, 23, 28
SA60	Ephemeral	772.98	3.5	17, 18, 22
SA61	Ephemeral	320.71	4	21,
SA62	Ephemeral	831.84	2	17
SA74	Perennial	153.84	6	19
SA75	Ephemeral	441.12	2	19
	TOTAL:	**31,683**		

(a) Stream numbering is not consecutive. Non-consecutive stream numbers were located within the previous Survey Area which are no longer a part of this project; therefore, these features are no longer documented in this report.

Thirty-one ephemeral stream channels, totaling 11,158 linear feet, were delineated in the Survey Area. Ephemeral streams observed ranged from approximately one to four feet in width at the OHWM, with bank heights ranging from approximately two to five feet. At the time of the delineation, no water flow was observed in these features. Substrates observed within ephemeral stream channels were comprised of silt and clay substrates. In general, these streams were in topographically depressed areas within fields and tree lines, draining into other stream channels. Dominant bank vegetation along these channels consisted of eastern red cedar (*Juniperus virginiana*), sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), and American beech (*Fagus grandiflora*), chinkapin oak (*Quercus muehlenbergii*), northern red-oak (*Quercus rubra*), and mockernut hickory (*Carya tomentosa*).

Eight intermittent stream channels, totaling 8,552 linear feet, were delineated in the Survey Area. In general, intermittent streams were characterized by evidence of a high-water table within the soils, which is a likely indicator that the stream is partially influenced by groundwater, but it may not flow during dry periods. Intermittent streams were three to sixteen feet in width at the OHWM with bank heights ranging from one to ten feet. At the time of the delineation, water was observed within intermittent channels. The substrates of intermittent streams were comprised of silt, sand, and gravel. These streams flowed through wooded riparian areas. Dominant bank vegetation observed along these channels included eastern red cedar, sugar maple, red maple, black willow (*Salix nigra*), and American beech, chinkapin oak, northern red-oak, and mockernut hickory.

Three perennial streams, totaling 11,973 linear feet were delineated within the Survey Area. Perennial streams were characterized by the presence of a well-developed channel and flowing water at the time of the site visit. Perennial streams were approximately 6 to 30 feet in width at the OHWM with bank heights ranging from 3 to 25 feet. At the time of the delineation, the depth of water observed was one to four feet. The substrates of the perennial streams, where observed, were comprised of silt, sand, gravel, cobble, and bedrock. Perennial streams flowed primarily within wooded riparian areas. Dominant bank vegetation along these channels consisted of eastern red cedar, sugar maple, red maple, black willow, and American beech, chinkapin oak, northern red-oak, and mockernut hickory.

Wetlands

A total of 13 wetland areas, consisting of three wetland types (PFO, PSS, and PEM) totaling approximately 8.29 acres, and 25 open waters, totaling 7.33 acres, were delineated within the Survey Area (**Representative Photographs included, Appendix C**). The different wetland types are summarized in Section 3.3. Further details associated with the wetland features identified are detailed in Table 4-2.

Coordinates listed for each wetland discussed in this report are associated with the centroid of each respective feature.

Table 4-2: Wetlands Identified in the Survey Area

Wetland ID [a]	Wetland Type [b]	Delineated Area (acre)	Figure A-4 Page Number
WA01	PFO	0.01	1
WA02	PSS	0.08	1
WA03	PEM	0.15	1, 2
WA04	PFO	0.73	3
WA06	PFO	1.96	22
WA07	PEM	0.45	28
WA08	PSS	0.30	28
WA09	PEM	0.07	24
WA10	PFO	1.06	11, 12
WA11	PFO	2.77	12
WA12	PSS	0.25	30
WA13	PEM	0.29	28
WA16	PEM	0.17	16
PA01	PUB	0.44	3
PA02	PUB	0.18	1
PA09	PUB	0.12	6
PA13	PUB	0.50	22
PA14	PUB	1.07	25
PA15	PUB	0.13	25
PA16	PUB	0.02	16
PA17	PUB	0.09	17
PA18	PUB	0.16	10
PA19	PUB	0.17	16
PA20	PUB	0.40	30
PA21	PUB	0.28	30
PA22	PUB	0.49	31
PA23	PUB	0.11	32
PA24	PUB	0.10	17, 18
PA25	PUB	0.20	17
PA26	PUB	0.38	17
PA27	PUB	0.26	17
PA28	PUB	0.92	14, 18
PA29	PUB	0.22	8
PA31	PUB	0.08	17
PA32	PUB	0.37	28
PA33	PUB	0.08	8, 9
PA34	PUB	0.47	9, 17
PA35	PUB	0.09	27, 29
	TOTAL:	**15.62**	

(a) Wetland and pond numbering is not consecutive. Non-consecutive wetland and pond numbers were located within the previous Survey Area which are no longer a part of this project; therefore, these features are no longer documented in this report.
(b) Symbols for wetland type: PEM = palustrine emergent, PFO= palustrine forested, PSS=palustrine scrub-shrub, PUB = palustrine unconsolidated bottom

Palustrine Unconsolidated Bottom – PUB

Palustrine unconsolidated bottom wetlands accounted for less than one percent (7.33 acres) of the total Survey Area. All PUB features appeared to be man-made ponds that were excavated to ground water with earthen berms on all sides. Most ponds did not contain an observed inlet, outlet, or continuous surface connection to jurisdictional features (further identified in Table 3-2). Common vegetation associated with the banks and riparian areas of the PUBs consisted of smooth alder (*Alnus serrulata*), black willow, eastern red cedar, and soft rush (*Juncus effusus*).

Palustrine Forested Wetlands - PFO

Palustrine forested wetlands accounted for less than one percent (6.53 acres) of the total Survey Area. Some features did not have an observed continuous surface connection to jurisdictional streams, identified in Table 3-2. The common overstory and understory vegetation consists of American sycamore (*Platanus occidentalis*), black willow, ash-leaf maple (*Acer negundo*), persimmon (*Diospyros virginiana*), American sweetgum (*Liquidambar styraciflua*), deer-tongue rosette grass (*Dichanthelium clandestinum*), soft rush, Japanese stilt grass (*Microstegium vimineum*), and white panicle aster (*Symphyotrichum lanceolatum*). Hydrology indicators observed in PFO wetlands included a positive FAC-neutral test and geomorphic position. Hydric soil indicators included a depleted matrix.

Palustrine Scrub Shrub - PSS

Palustrine forested wetlands accounted for less than one percent (0.63 acres) of the total Survey Area. Some of these features did not have an observed continuous surface connection to jurisdictional streams, identified in Table 3-2. The common overstory and understory vegetation consists of red maple, black elder (*Sambucus nigra*), green ash, black willow, ash-leaf maple, deer-tongue rosette grass, Japanese stilt grass, and shallow sedge (*Carex lurida*). Hydrology indicators observed in PFO wetlands included a positive FAC-neutral test and geomorphic position. Hydric soil indicators included a depleted matrix.

Palustrine Emergent Wetlands - PEM

Palustrine emergent wetlands accounted for less than one percent (1.13 acres) of the total Survey Area. Some of these features did not have an observed continuous surface connection to jurisdictional streams, identified in Table 3-2. Common vegetation observed within the emergent wetlands included soft rush, spotted lady's-thumb (*Persicaria maculosa*), water smartweed (*Persicaria amphibia*), swamp smartweed (*Persicaria hydropiperoides*), cottongrass bulrush (*Scirpus cyperinus*), Japanese stilt grass, spotted touch-

me-not (*Impatiens capensis*), yellow bristle grass (*Setaria pumila*), narrow-leaf cat-tail (*Typha angustifolia*), and dock-leaf smartweed (*Persicaria lapathifolia*). Hydrology indicators observed in PEM wetlands included a positive FAC-neutral test, geomorphic position, drainage patterns, oxidized rhizospheres on living roots. Hydric soil indicators primarily included a depleted matrix.

5.0 CONCLUSIONS

Burns & McDonnell conducted field surveys associated with a wetland delineation in November 2024 within an approximately 1,330-acre Survey Area in Green County, KY. Forty-two (42) stream features, 25 ponds, and 13 wetlands were identified. Based on the information reviewed and the observations made during our field surveys, 31,683 linear feet of stream were identified within the Survey Area. Finally, 6.53 acres of forested wetlands, 0.63 acres of scrub-shrub wetlands, 1.13 acres of emergent wetlands, and 7.33 acres of ponds were delineated within the Survey Area.

Burns & McDonnell implements professional judgement when considering on-site conditions as well as current guidance and regulations to make determinations of federal jurisdiction associated with wetlands or waters. Only the USEPA and USACE have final authority to determine jurisdiction and verify the location and extent of WOTUS, including wetlands. It is Burns & McDonnell's professional opinion that features identified within the Survey Area that may be subject to the jurisdiction of the USACE under Section 404 of the Clean Water Act are those that have a continuous surface connection to jurisdictional streams. Historic land use, and geography of the land including sinkholes, therefore rendering some features potentially non-jurisdictional per the current regulations and guidance.

Potential jurisdictional waterbodies include natural features that are not excluded by definition, that exhibit an OHWM, or potentially man-made features that extend the plane of the OHWM of a waterbody subject to jurisdiction under Section 404 of the CWA. Consistent with the pre-2015 WOTUS definition, potential jurisdictional wetlands are those bordering, contiguous, or neighboring territorial seas, interstate waters, waters able to carry interstate commerce, and their tributaries. Consistent with the *Sackett* ruling, only wetlands having a continuous surface connection are regulated as adjacent. Potentially non-jurisdictional features do not meet the definition of WOTUS outlined in Section 2.0. Non-jurisdictional features may be excluded by definition or are not adjacent to other WOTUS and would therefore not be subject to USACE jurisdiction under Section 404 of the CWA. However, features not subject to the jurisdiction of the USACE may still be subject to State regulations and permitting requirements should impacts be proposed to the feature itself or an applicable buffer.

6.0 SECTION 404 PERMITTING CONSIDERATIONS

It is recommended project siting demonstrate avoidance and/or minimization of impacts to WOTUS for all wetland and waterbody features identified on site, regardless of USACE jurisdictional status. If permanent impacts to jurisdictional WOTUS cannot be avoided, they should be minimized to the extent practicable, and a Section 404 permit from the USACE may be required. Depending on the size, location, and purpose of the permanent or temporary impacts, a variety of Nationwide Permits (NWPs) may be used for access roads, road crossings, collection lines, gen-tie, and land-based renewable energy generation facilities. Depending on the type and extent of impacts to waters of the U.S., permitting requirements may range from a non-notifying NWP, NWP requiring a formal Pre-Construction Notification (PCN) submittal, or an individual permit may be required. Regardless of which NWP is applicable to the Project, the regional and general conditions of the NWP(s) would apply and would need to be adhered to during Project construction.

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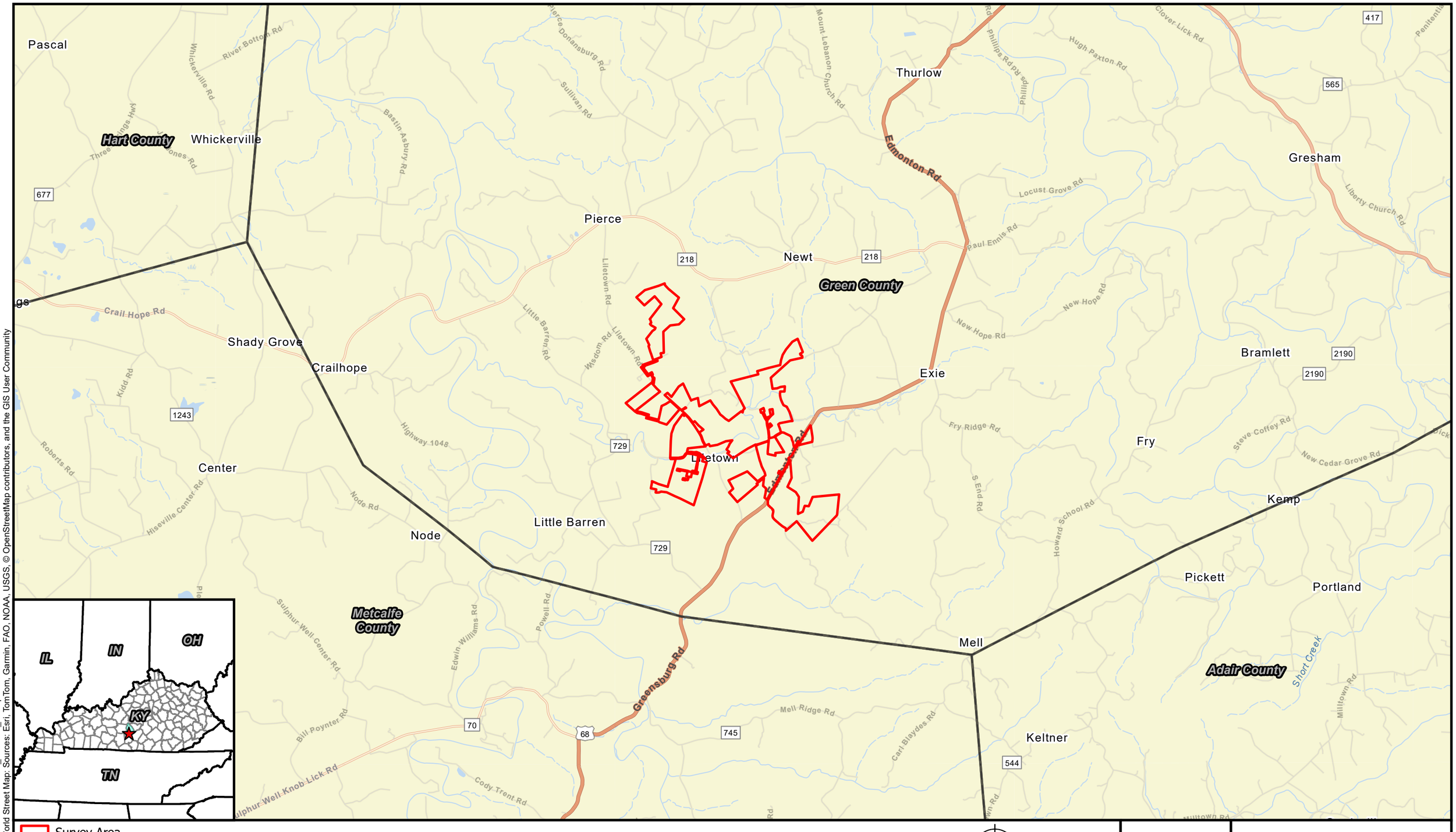
APPENDIX A - FIGURES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Hart County
Whickerville
Thurlow
Gresham
Pierce
Newt
Green County
Exie
Bramlett
Fry
Shady Grove
Crailhope
Center
Little Barren
Node
Kemp
Pickett
Portland
Mell
Keltner
Adair County
Metcalfe County
Lietown
Edmonton Rd
Greensburg Rd
Crail Hope Rd
Paul Ennis Rd
New Hope Rd
Locust Grove Rd
Liberty Church Rd
Fry Ridge Rd
Mell Ridge Rd
Cody Trent Rd
Sulphur Well Knob Lick Rd
Bill Poynter Rd
Sulphur Well Center Rd
Node Rd
Hiseville Center Rd
Roberts Rd
Kidd Rd
Whickerville Rd
River Bottom Rd
Bastin Asbury Rd
Sullivan Rd
Pierce Donansburg Rd
Mount Lebanon Church Rd
Hugh Paxton Rd
Clover Lick Rd
Phillips Rd
Little Barren Rd
Wisdom Rd
Liletown Rd
Edwin Williams Rd
Powell Rd
Howard School Rd
S End Rd
Carl Blaydes Rd
Steve Coffey Rd
New Cedar Grove Rd
Short Creek
Milltown Rd
Highway 1048
677
218
729
70
68
745
544
565
417
2190
1243
IL
IN
OH
KY
TN
Survey Area
NORTH
1 0.5 0 1
Miles
BURNS McDONNELL
Figure A-1
General Location Map
Exie Solar Project
Geronimo Power
Green County, KY
Issued: 8/26/2025
Source: Esri, Geronimo Power, Burns & McDonnell
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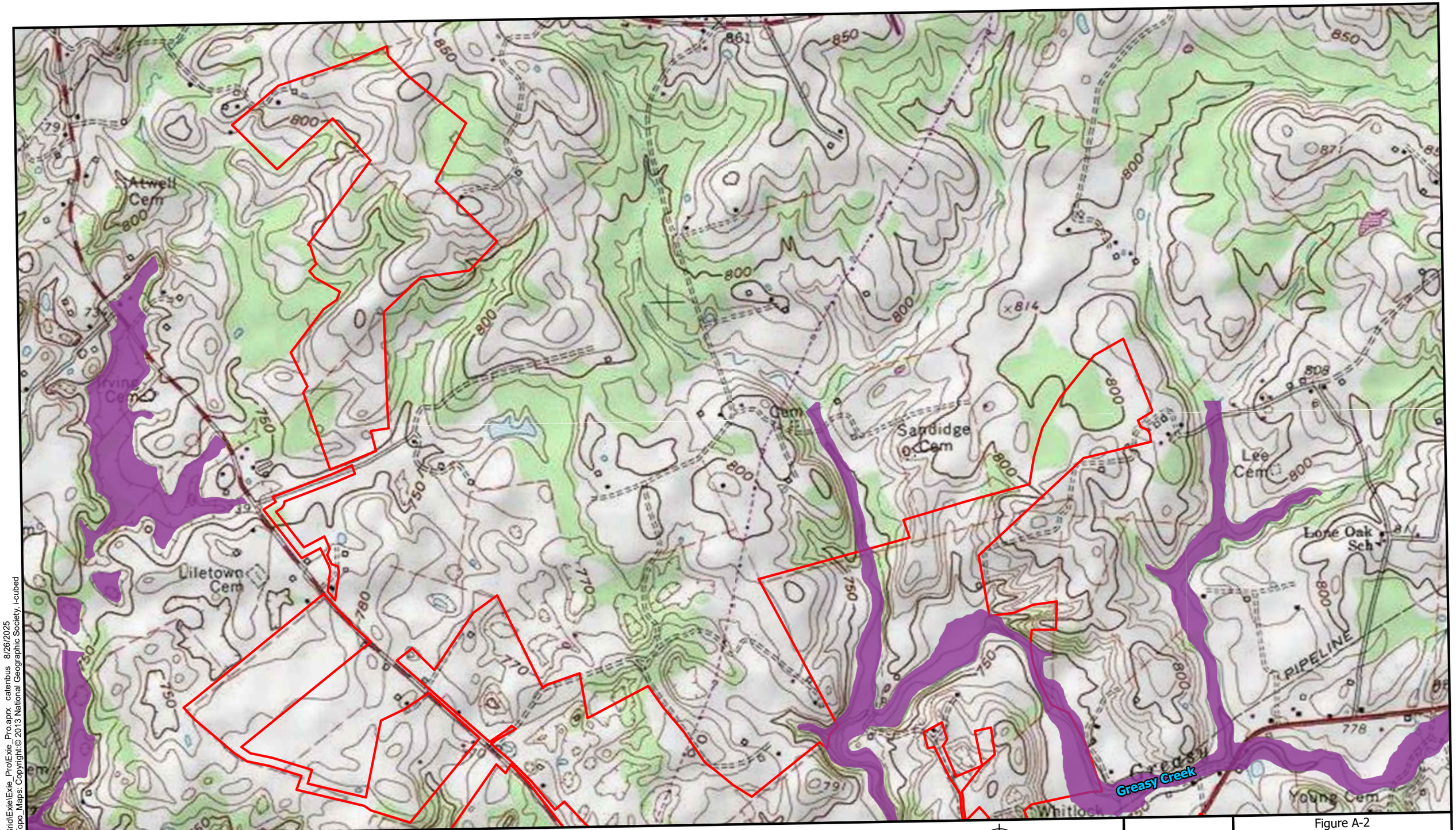
Service Layer Credits: World Street Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



1

2

Survey Area
NHD Stream
Freshwater Forested/Shrub Wetland
Freshwater Emergent Wetland
Freshwater Pond
Riverine Wetland
1% Annual Chance Flood Hazard

NORTH

1,000 500 0 1,000

US Feet

BURNS McDONNELL

Figure A-2
NHD, NWI, and FEMA
Topographic Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 1 of 2

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Source: Esri, USGS, NHD, NWI, FEMA, Geronimo Power, Burns & McDonnell

Creek

Greasy Creek

Liletown

Philpot Cem

Dowell Cem

Whitlock Cem

PIPELINE

Survey Area
NHD Stream
Freshwater Forested/Shrub Wetland
Freshwater Emergent Wetland
Freshwater Pond
Riverine Wetland
1% Annual Chance Flood Hazard

NORTH

1,000 500 0 1,000

US Feet

BURNS McDONNELL

Figure A-2
NHD, NWI, and FEMA
Topographic Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 2 of 2

Issued: 8/26/2025

Source: Esri, USGS, NHD, NWI, FEMA, Geronimo Power, Burns & McDonnell

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Soil Symbol	Soil Name
CaE	Caneyville-Frederick silt loams, very rocky, 20 to 30 percent slopes
DcB	Dickson silt loam, 2 to 6 percent slopes
ElB	Elk silt loam, 2 to 6 percent slopes
ElC	Elk silt loam, 6 to 12 percent slopes
FkC	Frankstown silt loam, 6 to 12 percent slopes
FrC	Frederick silt loam, 12 to 20 percent slopes
FrD	Frederick silt loam, 20 to 30 percent slopes
FrE	Frederick silt loam, 6 to 12 percent slopes
FsD3	Frederick silty clay loam, 12 to 20 percent slopes, severely eroded
LoF	Lowell-Caneyville silt loams, very rocky, 30 to 60 percent slopes
Me	Melvin silt loam
MoB	Mountview silt loam, 2 to 6 percent slopes
Ne	Newark silt loam
No	Nolin silt loam
OtB	Otwood silt loam, 2 to 6 percent slopes
Ta	Taft silt loam
W	Water

Survey Area
Non-hydric Soil
Hydric Soil

NORTH

1,000 500 0 1,000

US Feet

BURNS McDONNELL

Figure A-3
SSURGO Soil Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 1 of 2

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Soil Symbol	Soil Name
CaE	Caneyville-Frederick silt loams, very rocky, 20 to 30 percent slopes
DcB	Dickson silt loam, 2 to 6 percent slopes
ElB	Elk silt loam, 2 to 6 percent slopes
ElC	Elk silt loam, 6 to 12 percent slopes
FkC	Frankstown silt loam, 6 to 12 percent slopes
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FrD	Frederick silt loam, 20 to 30 percent slopes
FrE	Frederick silt loam, 6 to 12 percent slopes
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LoF	Lowell-Caneyville silt loams, very rocky, 30 to 60 percent slopes
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Ne	Newark silt loam
No	Nolin silt loam
OtB	Otwood silt loam, 2 to 6 percent slopes
Ta	Taft silt loam
W	Water

Survey Area
Non-hydric Soil
Hydric Soil

NORTH

1,000 500 0 1,000

US Feet

BURNS McDONNELL

Figure A-3
SSURGO Soil Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 2 of 2

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SPA02
SPA01
WA01
PA02
SA05
WA02
SPA04
SPA03
SA04
SA03
SA02
SA01
WA03

Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream
Intermittent Stream

Delineated Wetland
PEM
PFO
PSS
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 1 of 33

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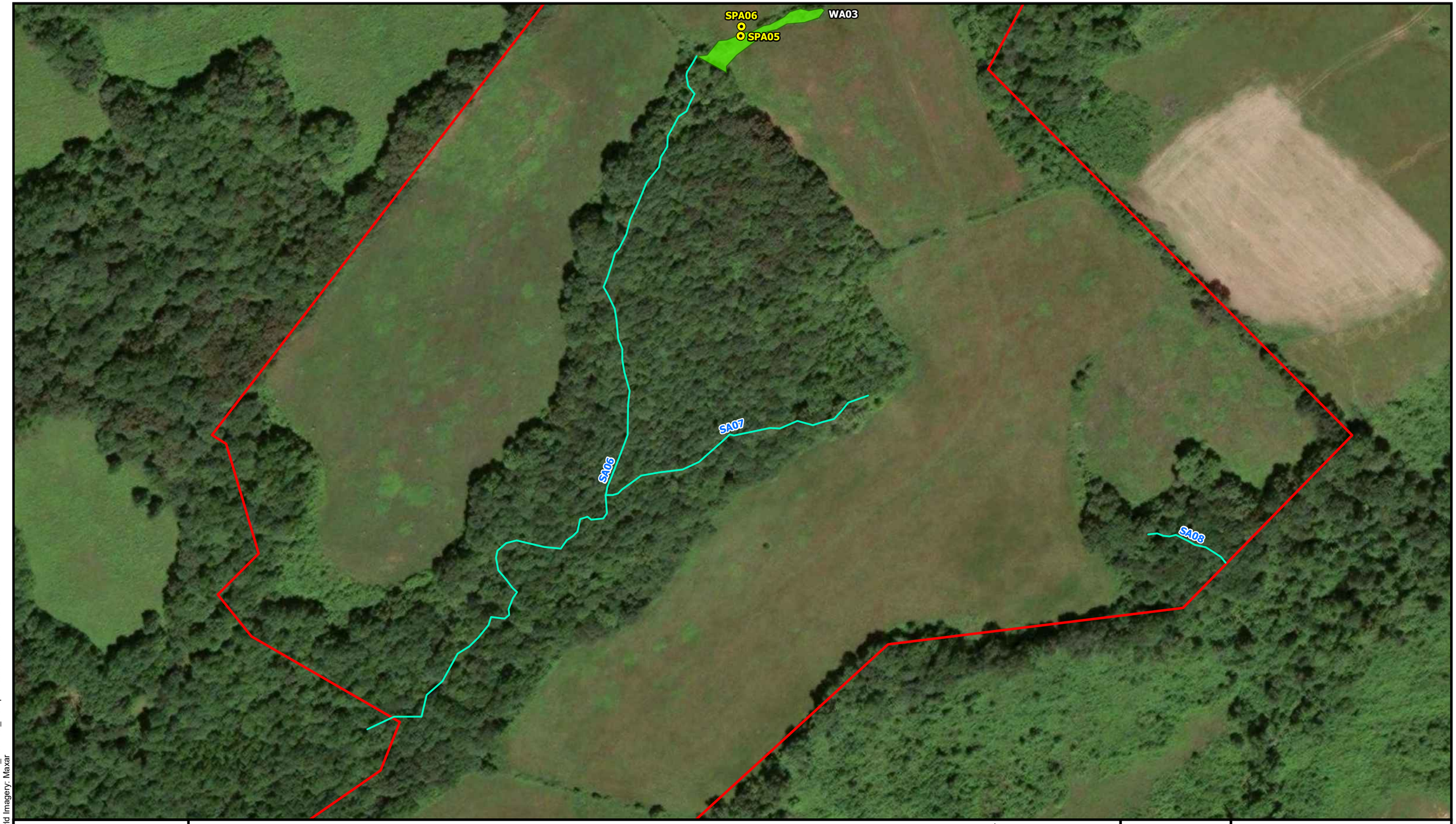

Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream

Delineated Wetland
PEM

NORTH

200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 2 of 33

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Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream

Delineated Wetland
PFO
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 3 of 33

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Survey Area

Delineated Stream

Ephemeral Stream

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 4 of 33

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Survey Area

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 5 of 33

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Survey Area

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Survey Area

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Survey Area

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Survey Area

Delineated Stream

Ephemeral Stream

Perennial Stream

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Survey Area

Delineated Stream
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream

Delineated Wetland
- Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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D.A.R. Cemetery Rd

WA10

SPA19

SPA20

SA38

SA37

Sample Plot

Survey Area

Delineated Stream

Ephemeral Stream

Delineated Wetland

PFO

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Sample Plot
Survey Area

Delineated Wetland

PFO

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 12 of 33

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Survey Area

Delineated Stream

Ephemeral Stream

Perennial Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 13 of 33

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Issued: 8/28/2025

Survey Area

Delineated Stream
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream

Delineated Wetland
- Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 14 of 33

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Issued: 8/28/2025

Survey Area

Delineated Stream

Perennial Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 15 of 33

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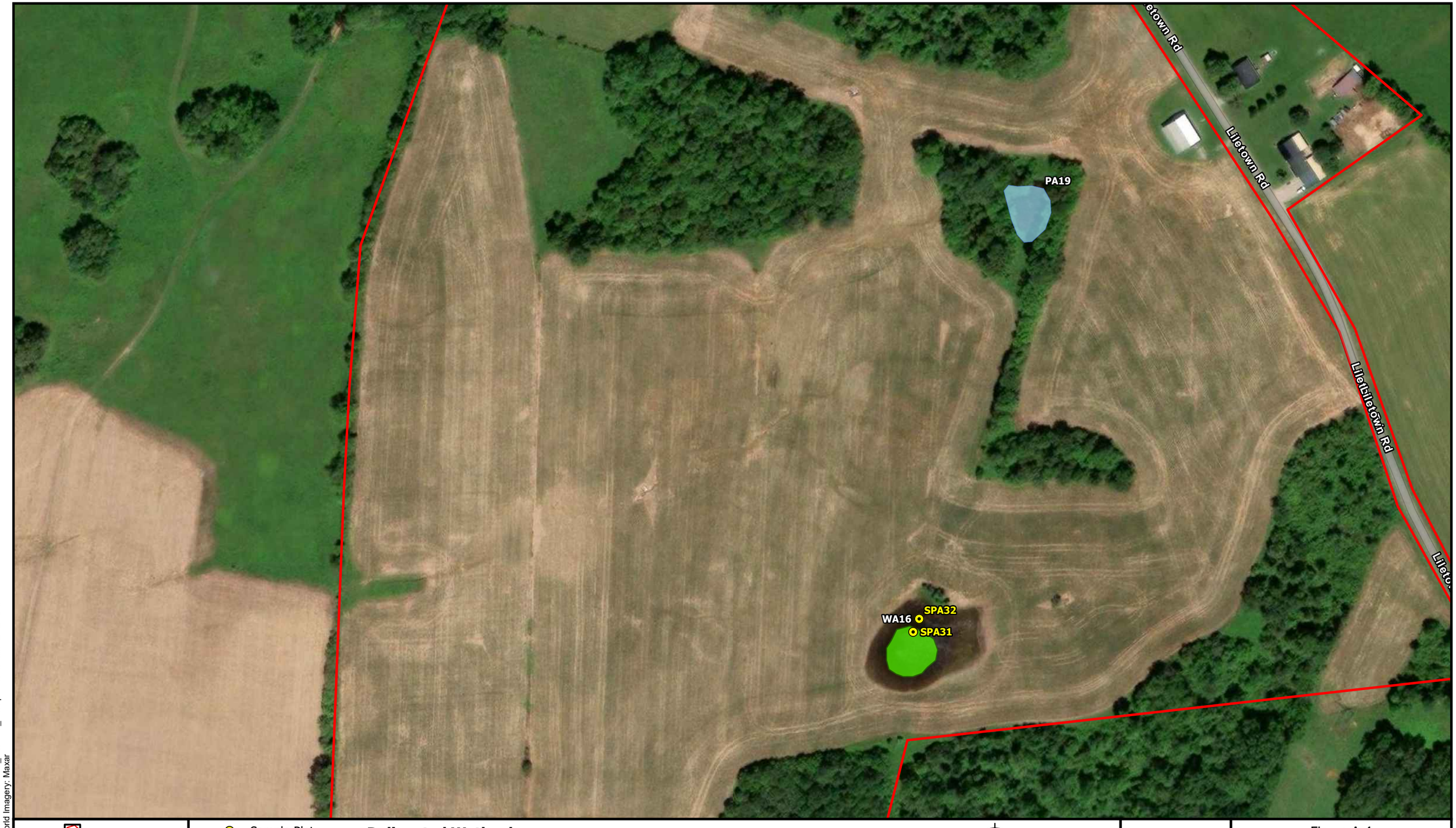

Sample Plot
Survey Area

Delineated Wetland
PEM
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Stream

Ephemeral Stream

Perennial Stream

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 17 of 33

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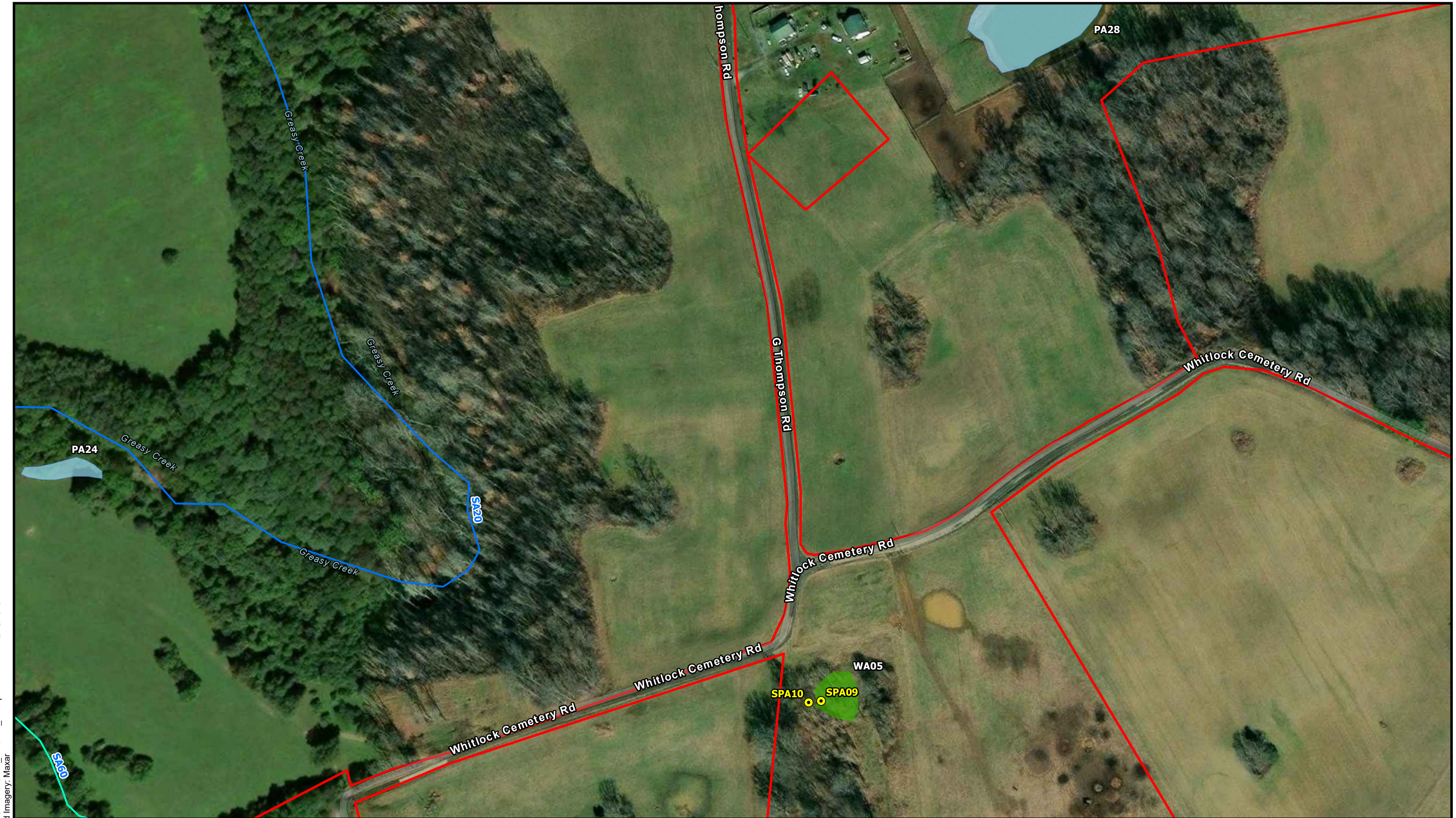

Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream
Perennial Stream

Delineated Wetland
PFO
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 18 of 33

Path: C:\Desktop\QINationalGrid\ExieExie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Stream

- Ephemeral Stream
- Intermittent Stream
- Perennial Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 19 of 33

Path: C:\Desktop\G\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
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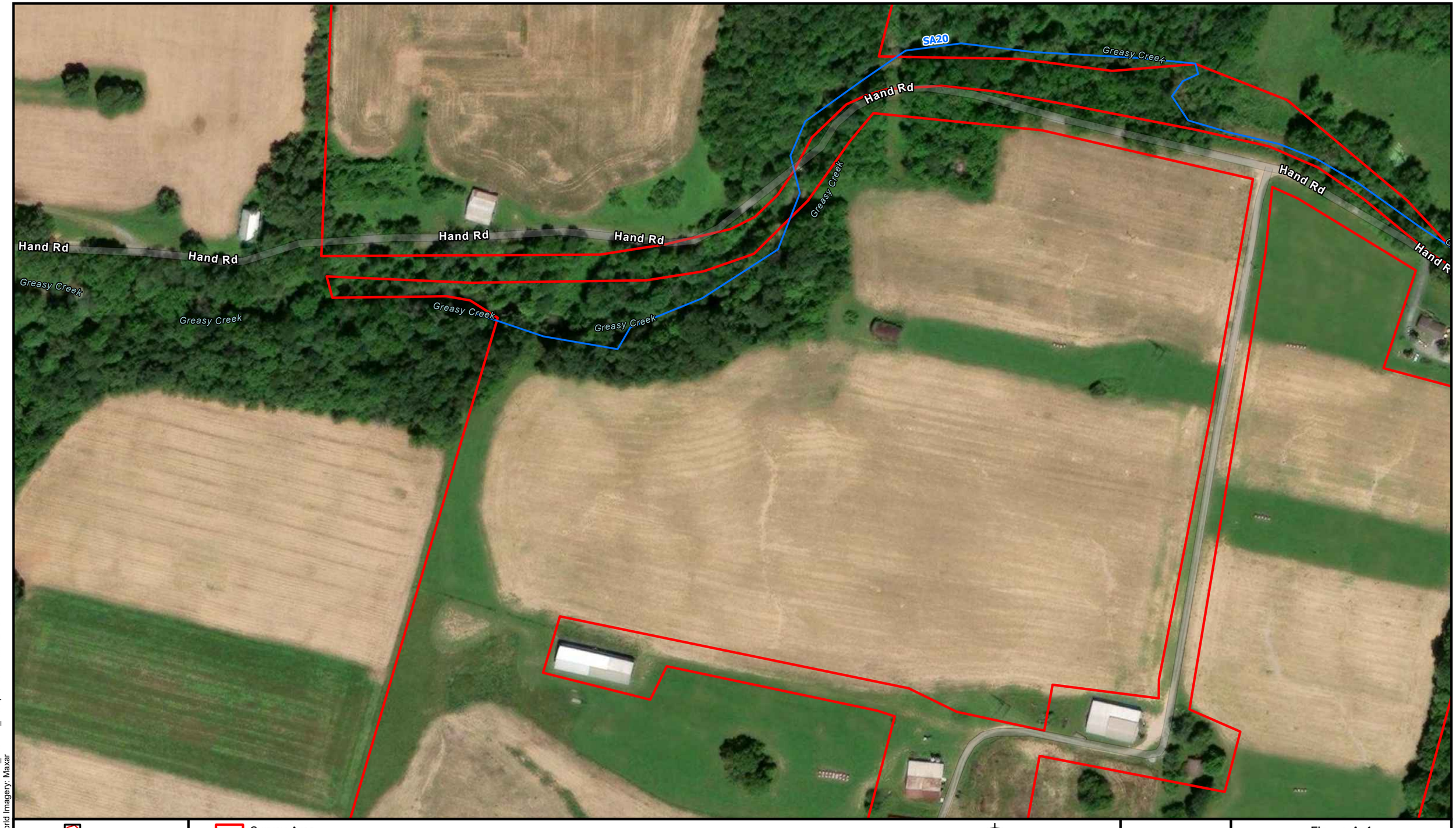

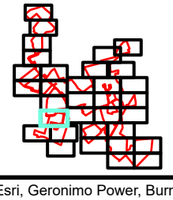

Survey Area

Delineated Stream

Perennial Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
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Path: C:\Desktop\QtNationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
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Source: Esri, Geronimo Power, Burns & McDonnell

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Survey Area

Delineated Stream

- Ephemeral Stream
- Perennial Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 21 of 33

Path: C:\Desktop\QiNationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream
Intermittent Stream

Delineated Wetland
PFO
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 22 of 33

Path: C:\Desktop\QiNationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Stream

Intermittent Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 23 of 33

Path: C:\Desktop\Q\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Sample Plot
Survey Area

Delineated Wetland
PEM
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY

Path: C:\Desktop\Q\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 25 of 33

Issued: 8/28/2025

Path: C:\Desktop\QiNationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Survey Area

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 26 of 33

Path: C:\Desktop\Q\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Stream

Ephemeral Stream

Intermittent Stream

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 27 of 33

Path: C:\Desktop\QINationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream
Intermittent Stream

Delineated Wetland
PEM
PSS
Water Body

NORTH
200 100 0 200
US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 28 of 33

Path: C:\Desktop\QI\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 29 of 33

Path: C:\Desktop\O\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Sample Plot
Survey Area

Delineated Stream
Ephemeral Stream
Intermittent Stream
Perennial Stream

Delineated Wetland
PSS
Water Body

NORTH
200 100 0 200
US Feet

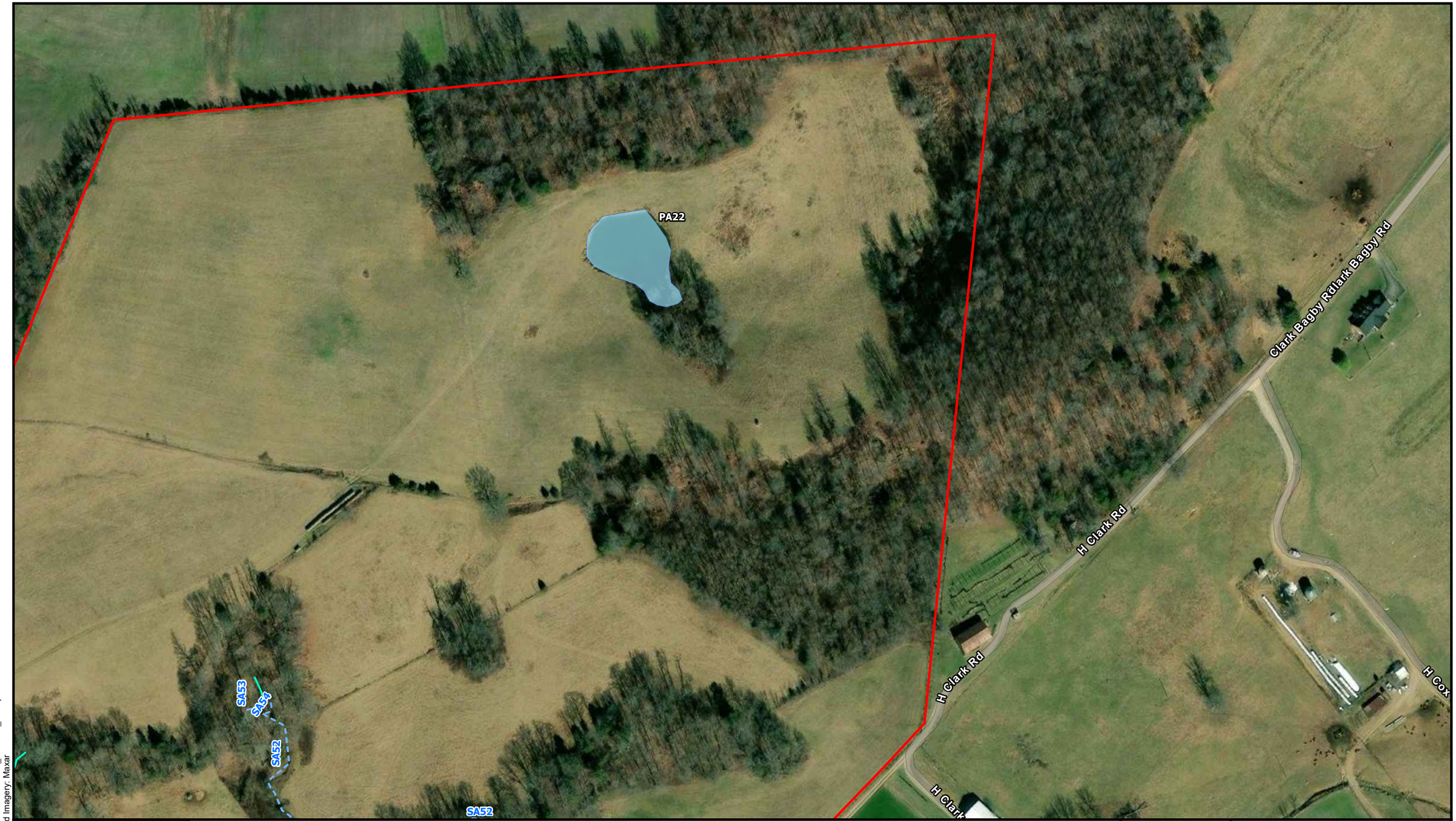
BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY

Path: C:\Desktop\QI\NationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025



Survey Area

Delineated Stream

Ephemeral Stream

Intermittent Stream

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 31 of 33

Path: C:\Desktop\QINationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

Survey Area

Delineated Stream

Ephemeral Stream

Perennial Stream

Delineated Wetland

Water Body

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 32 of 33

Issued: 8/28/2025

Path: C:\Desktop\QiNationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Survey Area

Delineated Stream

Ephemeral Stream

Intermittent Stream

NORTH

200 100 0 200

US Feet

BURNS McDONNELL

Figure A-4
Delineated Features Map
Exie Solar Project
Geronimo Power
Green County, KY
Page 33 of 33

Path: C:\Desktop\GINationalGrid\Exie\Exie_Pro\Exie_Pro.aprx catenbus 8/28/2025
Service Layer Credits: World Imagery: Maxar

Source: Esri, Geronimo Power, Burns & McDonnell

Issued: 8/28/2025

APPENDIX B - ANTECEDENT PRECIPITATION TOOL ANALYSIS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA01

Investigator(s): A. Conley, B. Salupo Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.17241466 Long: -85.59638355 Datum: NAD 83

Soil Map Unit Name: Me - Melvin silt loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PFO WA01. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

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

Remarks:

Indicators D2 and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA01

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	50	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25.00	20% of total cover: 10.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	30	✔	FAC
2. Dichanthelium scoparium	25	✔	FACW
3. Juncus effusus	15		FACW
4. Ludwigia alternifolia	15		FACW
5. Microstegium vimineum	15		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	150 (A)		395 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-1.

SOIL Sampling Point: SPA01

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 4/2	95	7.5YR 4/6	5	C	M	Clay Loam	
10 - 20	10YR 5/2	90	5YR 4/6	10	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA02

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): N 122 Lat: 37.17265622 Long: -85.59615931 Datum: NAD 83

Soil Map Unit Name: Me - Melvin silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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** ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO WA01. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA02

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	20	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	15	✔	FAC
2. Polystichum acrostichoides	15	✔	FACU
3. Rubus argutus	15	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45 = Total Cover		
50% of total cover: 22.50	20% of total cover: 9.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	80 (A)		270 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-2.

SOIL Sampling Point: SPA02

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/3	100					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA03

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.17219206 Long: -85.59977917 Datum: NAD 83

Soil Map Unit Name: OtB - Otwood silt loam, 2 to 6 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PSS WA02. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 1
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators A2, A3, C2, C3, B10, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA03

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1. Acer rubrum	30	✔	FAC
2. Acer negundo	25	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	55 = Total Cover		

50% of total cover: 27.50 20% of total cover: 11.00

Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	35	✔	FAC
2. Carex lurida	15	✔	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		

50% of total cover: 25.00 20% of total cover: 10.00

Woody Vine Stratum (Plot size: 30 ft r)			
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: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		285 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-3.

SOIL Sampling Point: SPA03

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/1	95	5YR 4/6	5	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA04

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): N 122 Lat: 37.17207823 Long: -85.59975787 Datum: NAD 83

Soil Map Unit Name: Me - Melvin silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS WA02. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA04

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	35	✔	FACU
2. Prunus serotina	25	✔	FACU
3. Quercus marilandica	15	✔	
4.			
5.			
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	45	✔	FAC
2. Lonicera japonica	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
50% of total cover: 30.00	20% of total cover: 12.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	120 (A)		435 (B)

Prevalence Index = B/A = 3.62

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No indictors are met.

SOIL Sampling Point: SPA04

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 3/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indictors are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA05

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.1708118 Long: -85.59417003 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PEM WA03. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators D2 and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA05

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	45	✔	FACW
2. Rhexia mariana	20	✔	OBL
3. Andropogon virginicus	15		FACU
4. Ludwigia alternifolia	10		FACW
5. Scirpus cyperinus	5		FACW
6. Dichanthelium clandestinum	5		FAC
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	60	x 2 =	120
FAC species	5	x 3 =	15
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	100 (A)		215 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-5.

SOIL Sampling Point: SPA05

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 5	10YR 5/2	94	5YR 5/6	6	C	M	Silt Loam	
5 - 20	10YR 4/2	97	5YR 4/6	3	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA06

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): N 122 Lat: 37.17088836 Long: -85.59412348 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM WA03. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA06

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1. Acer rubrum	15	✔	FAC
2. Liquidambar styraciflua	10	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		
Herb Stratum (Plot size: 5 ft r)			
1. Andropogon virginicus	55	✔	FACU
2. Lespedeza cuneata	30	✔	FACU
3. Agrimonia parviflora	15		FACW
4. Solidago canadensis	15		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	115 = Total Cover		
50% of total cover: 57.50	20% of total cover: 23.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	25	x 3 =	75
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	140 (A)		505 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No indictors are met.

SOIL Sampling Point: SPA06

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/4	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indictors are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA07

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.1626021 Long: -85.59731879 Datum: NAD 83

Soil Map Unit Name: FrD - Frederick silt loam, 12 to 20 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PFO WA04. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, B10, C8, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA07

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	35	✔	FAC
2. Diospyros virginiana	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25.00	20% of total cover: 10.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	15	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Carex lurida	20	✔	OBL
3. Agrimonia parviflora	15	✔	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 6 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	30	x 2 =	60
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		350 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-7.

SOIL Sampling Point: SPA07

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 5/1	90	5YR 5/8	10	C	M	Silty Clay Loam	
6 - 20	10YR 6/1	96	5YR 5/8	4	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-04

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA08

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): N 122 Lat: 37.16277057 Long: -85.59712625 Datum: NAD 83

Soil Map Unit Name: FrD - Frederick silt loam, 12 to 20 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO WA04. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA08

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharinum	40	✔	FACW
2. Juniperus virginiana	35	✔	FACU
3. Quercus imbricaria	30	✔	FAC
4.			
5.			
6.			
7.			
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa multiflora	20	✔	FACU
2. Ulmus alata	20	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	____ = Total Cover		
50% of total cover: ____	20% of total cover: ____		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	145 (A)		470 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-8.

SOIL Sampling Point: SPA08

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA11

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.14469273 Long: -85.57103862 Datum: NAD 83

Soil Map Unit Name: Ta - Taft silt loam NWI classification: PSS1Fh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PFO WA06. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, B10, C9, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA11

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	35	✔	FACW
2. Salix nigra	20	✔	OBL
3.			
4.			
5.			
6.			
7.			
	55	= Total Cover	
50% of total cover: 27.50	20% of total cover: 11.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum lateriflorum	35	✔	FACW
2. Persicaria maculosa	30	✔	FACW
3. Boehmeria cylindrica	15		FACW
4. Ambrosia artemisiifolia	10		FACU
5. Scirpus cyperinus	10		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
50% of total cover: 50.00	20% of total cover: 20.00		

Woody Vine Stratum (Plot size: 30 ft r)			
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: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	125	x 2 =	250
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	155 (A)		310 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Rapid Test is passed. See Photo C-11.

SOIL Sampling Point: SPA11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 5/1	100					Silty Clay Loam	
16 - 20	10YR 6/1	85	2.5YR 5/8	15	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA12

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5

Subregion (LRR or MLRA): N 122 Lat: 37.14472296 Long: -85.57104264 Datum: NAD 83

Soil Map Unit Name: Ta - Taft silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO WA06. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA12

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharum	20	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Lolium arundinaceum	30	✔	UPL
2. Microstegium vimineum	20	✔	FAC
3. Miscanthus sinensis	15	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65 = Total Cover		
50% of total cover: 32.50	20% of total cover: 13.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	35	x 4 =	140
UPL species	30	x 5 =	150
Column Totals:	85 (A)		350 (B)

Prevalence Index = B/A = 4.11

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No indictors are met.

SOIL Sampling Point: SPA12

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indictors are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA13

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.13986871 Long: -85.58997212 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PEM WA07. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, B10, C8, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA13

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Scirpus cyperinus	35	✔	FACW
3. Juncus effusus	15		FACW
4. Symphyotrichum lateriflorum	10		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		240 (B)

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-13.

SOIL Sampling Point: SPA13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 5/1	100					Silty Clay Loam	
16 - 20	10YR 6/1	85	2.5YR 5/8	15	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA14

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5

Subregion (LRR or MLRA): N 122 Lat: 37.13986907 Long: -85.58997188 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM WA07. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA14

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	45	✔	FACU
2. Ulmus alata	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		
50% of total cover: 30.00	20% of total cover: 12.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	15	✔	FACU
2. Fagus grandifolia	10	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		
Herb Stratum (Plot size: 5 ft r)			
1. Polystichum acrostichoides	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-14.

SOIL Sampling Point: SPA14

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/2	100					Clay Loam	n
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indictors are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA15

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.13986097 Long: -85.5899732 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PSS WA08. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, B10, C8, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA15

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1. Acer rubrum	25	✔	FAC
2. Fraxinus pennsylvanica	15	✔	FACW
3. Sambucus nigra	15	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	55 = Total Cover		

50% of total cover: 27.50 20% of total cover: 11.00

Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Bidens frondosa	30	✔	FACW
3. Andropogon glomeratus	15		FACW
4. Eupatorium perfoliatum	15		FACW
5. Juncus effusus	15		FACW
6. Symphyotrichum lateriflorum	10		FACW
7.			
8.			
9.			
10.			
11.			
	125 = Total Cover		

50% of total cover: 62.50 20% of total cover: 25.00

Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		440 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-15.

SOIL Sampling Point: SPA15

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 5/1	100					Silt Loam	
16 - 20	10YR 6/1	85	2.5YR 5/8	15	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA16

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): N 122 Lat: 37.13988795 Long: -85.58996185 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS WA08. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA16

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juniperus virginiana	35	✔	FACU
2. Carya glabra	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25.00	20% of total cover: 10.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Rubus argutus	25	✔	FACU
2. Lonicera japonica	20	✔	FACU
3. Polystichum acrostichoides	15	✔	FACU
4. Smilax rotundifolia	10		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	135 (A)		515 (B)

Prevalence Index = B/A = 3.81

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-16.

SOIL Sampling Point: SPA16

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/3	100					Clay Loam	n
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA17

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.13980719 Long: -85.59237046 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PEM WA09. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA17

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Echinochloa crus-galli	35	✔	FAC
2. Persicaria hydropiperoides	25	✔	OBL
3. Packera glabella	15	✔	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		145 (B)

Prevalence Index = B/A = 1.93

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-17.

SOIL Sampling Point: SPA17

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/2	98	5YR 5/8	2	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-06

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA18

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): N 122 Lat: 37.13978123 Long: -85.59244688 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM WA09. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA18

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juniperus virginiana	35	✔	FACU
2. Celtis occidentalis	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	
50% of total cover: 25.00	20% of total cover: 10.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa multiflora	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15	= Total Cover	
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Lolium arundinaceum	20	✔	
2. Phytolacca americana	15	✔	FACU
3. Microstegium vimineum	10	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45	= Total Cover	
50% of total cover: 22.50	20% of total cover: 9.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	90 (A)		350 (B)

Prevalence Index = B/A = 3.88

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-18.

SOIL Sampling Point: SPA18

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/4	100					Clay Loam	Restrictive layer at 4"
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-07

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA19

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.16150363 Long: -85.56811143 Datum: NAD 83

Soil Map Unit Name: Ta - Taft silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PFO WA10. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA19

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	35	✔	FAC
2. Liquidambar styraciflua	20	✔	FAC
3.			
4.			
5.			
6.			
7.			
	55 = Total Cover		
50% of total cover: 27.50	20% of total cover: 11.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	30	✔	FAC
2. Lycopus virginicus	25	✔	OBL
3. Boehmeria cylindrica	10		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65 = Total Cover		
50% of total cover: 32.50	20% of total cover: 13.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	10	x 2 =	20
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	135 (A)		345 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-19.

SOIL Sampling Point: SPA19

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/1	98	5YR 5/8	2	C	PL / M	Silty Clay Loam	
8 - 20	10YR 5/1	97	5YR 5/8	3	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-07

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA20

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): N 122 Lat: 37.16137287 Long: -85.56817059 Datum: NAD 83

Soil Map Unit Name: Ta - Taft silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO WA10. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA20

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	50	✔	FAC
2. Fagus grandifolia	35	✔	FACU
3.			
4.			
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Solidago canadensis	25	✔	FACU
3. Cinna arundinacea	10		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	90	x 3 =	270
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	175 (A)		590 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-20.

SOIL Sampling Point: SPA20

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3	100					Clay Loam	
12 - 20	10YR 6/2	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-07

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA21

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.16347551 Long: -85.56713074 Datum: NAD 83

Soil Map Unit Name: Ta - Taft silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PFO WA11. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, B10, C8, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA21

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	35	✔	FAC
2. Liquidambar styraciflua	20	✔	FAC
3. Fagus grandifolia	15	✔	FACU
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Woodwardia areolata	35	✔	FACW
2. Microstegium vimineum	30	✔	FAC
3. Lycopus virginicus	20	✔	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	35	x 2 =	70
FAC species	85	x 3 =	255
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	155 (A)		405 (B)

Prevalence Index = B/A = 2.61

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-21.

SOIL Sampling Point: SPA21

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 7	10YR 5/1	95	5YR 5/8	5	C		Silt Loam	
7 - 20	10YR 6/1	98	5YR 5/8	2	C		Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-07

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA22

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): N 122 Lat: 37.16342365 Long: -85.56718098 Datum: NAD 83

Soil Map Unit Name: Ta - Taft silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO WA11. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA22

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	75	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	75 = Total Cover		

50% of total cover: 37.50 20% of total cover: 15.00

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fagus grandifolia	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		

50% of total cover: 7.50 20% of total cover: 3.00

Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		

50% of total cover: 5.00 20% of total cover: 2.00

Woody Vine Stratum (Plot size: 30 ft r)			
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: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-22.

SOIL Sampling Point: SPA22

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 5/3	100					Clay Loam	
10 - 20	10YR 5/2	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-08

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA23

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.13704484 Long: -85.57010826 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PSS WA12. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators A3, B9, C3, B10, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA23

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1. Alnus serrulata	30	✔	OBL
2. Acer rubrum	15	✔	FAC
3. Salix nigra	10		OBL
4.			
5.			
6.			
7.			
8.			
9.			
	55 = Total Cover		
50% of total cover: 27.50	20% of total cover: 11.00		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria sagittata	30	✔	OBL
2. Juncus effusus	25	✔	FACW
3. Ludwigia alternifolia	20	✔	FACW
4. Eupatorium perfoliatum	15		FACW
5. Dichanthelium clandestinum	10		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	60	x 2 =	120
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	155 (A)		265 (B)

Prevalence Index = B/A = 1.70

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-23.

SOIL Sampling Point: SPA23

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/1	95	5YR 5/8	5	C	PL / M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-08

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA24

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): N 122 Lat: 37.13703242 Long: -85.57004539 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS WA12. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA24

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Lespedeza cuneata	20	✔	FACU
2. Dichanthelium clandestinum	15	✔	FAC
3. Setaria pumila	15	✔	FAC
4. Rubus argutus	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
50% of total cover: 30.00	20% of total cover: 12.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	60 (A)		210 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-24.

SOIL Sampling Point: SPA24

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/3	100					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-08

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA25

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.14092495 Long: -85.5681129 Datum: NAD 83

Soil Map Unit Name: Me - Melvin silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PEM WA13. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators C3, C8, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA25

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1. Sambucus nigra	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		

50% of total cover: 7.50 20% of total cover: 3.00

Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	25	✔	FACW
2. Cynodon dactylon	15	✔	FACU
3. Lycopus virginicus	15	✔	OBL
4. Persicaria hydropiperoides	15	✔	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		

50% of total cover: 35.00 20% of total cover: 14.00

Woody Vine Stratum (Plot size: 30 ft r)			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	25	x 2 =	50
FAC species	15	x 3 =	45
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	85 (A)		185 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Dominance Test is passed. See Photo C-25.

SOIL Sampling Point: SPA25

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/1	97	5YR 5/8	3	C	PL / M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-11-08

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA26

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): N 122 Lat: 37.14092802 Long: -85.56805769 Datum: NAD 83

Soil Map Unit Name: Me - Melvin silt loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM WA13. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA26

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Cynodon dactylon	70	✔	FACU
2. Eleusine indica	20		FACU
3. Tridens flavus	10		FACU
4. Andropogon virginicus	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	105 (A)		420 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-26.

SOIL Sampling Point: SPA26

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	5YR 5/4	100					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-12-03

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA31

Investigator(s): A. Conley, B. Salupo Section, Township, Range:

Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): N 122 Lat: 37.146495 Long: -85.589286 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Sample plot located in PEM WA16. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

Indicators B9, C3, C9, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA31

Tree Stratum (Plot size: 30 ft r)	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: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria hydropiperoides	70	✔	OBL
2. Setaria pumila	20		FAC
3. Rumex crispus	15		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		175 (B)

Prevalence Index = B/A = 1.66

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

Rapid Test is passed. See Photo C-31.

SOIL Sampling Point: SPA31

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/2	95	5YR 5/8	5	C	PL / M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Exie Solar City/County: Green County Sampling Date: 2024-12-03

Applicant/Owner: Geronimo Power State: Kentucky Sampling Point: SPA32

Investigator(s): A. Conley, B. Salupo Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR or MLRA): N 122 Lat: 37.146564 Long: -85.589246 Datum: NAD 83

Soil Map Unit Name: FrC - Frederick silt loam, 6 to 12 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ 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 ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM WA16. The USACE Antecedent Precipitation Tool indicated the area around the Project was experiencing normal conditions the three months leading up to the time of survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

No indictors are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SPA32

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juniperus virginiana	25	✔	FACU
2. Liquidambar styraciflua	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Zea mays	40	✔	UPL
2. Setaria pumila	25	✔	FAC
3. Solidago canadensis	20	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	60	x 4 =	240
UPL species	40	x 5 =	200
Column Totals:	140 (A)		560 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]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.)

No test is passed. See Photo C-33.

SOIL Sampling Point: SPA32

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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 (F7)
- ___ 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[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

APPENDIX C - REPRESENTATIVE PHOTOGRAPHS

Photo C-1: View of SPA01 within WA01, facing west.

Photo C-2: View of upland SPA02 adjacent to WA01, facing north.

Photo C-3: View of SPA03 within WA02, facing south.

Photo C-4: View of upland SPA04 adjacent to WA02, facing south.

Photo C-5: View of SPA05 within WA03, facing north.

Photo C-6: View of upland SPA06 adjacent to WA03, facing south.

Photo C-7: View of SPA07 within WA04, facing east.

Photo C-8: View of upland SPA08 adjacent to WA04, facing north.

Photo C-11: View of SPA11 within WA06, facing northeast.

Photo C-12: View of upland SPA12 adjacent to WA06, facing west.

Photo C-13: View of SPA13 within WA07, facing east.

Photo C-14: View of upland SPA14 adjacent to WA07, facing west.

Photo C-15: View of SPA15 within WA08, facing east.

Photo C-16: View of upland SPA16 adjacent to WA08, facing north.

Photo C-17: View of SPA17 within WA09, facing east.

Photo C-18: View of upland SPA18 adjacent to WA09, facing north.

Photo C-19: View of SPA19 within WA10, facing north.

Photo C-20: View of upland SPA20 adjacent to WA10, facing west.

Photo C-21: View of SPA21 within WA11, facing north.

Photo C-22: View of upland SPA22 adjacent to WA11, facing west.

Photo C-23: View of SPA23 within WA12, facing west.

Photo C-24: View of upland SPA24 adjacent to WA12, facing north.

Photo C-25: View of SPA25 within WA13, facing north.

Photo C-26: View of upland SPA26 adjacent to WA13, facing west.

Photo C-31: View of SPA31 within WA16, facing east.

Photo C-32: View of upland SPA32 adjacent to WA16, facing northeast.

Photo C-33: View of ephemeral SA01, facing southeast.

Photo C-34: View of ephemeral SA02, facing west.

Photo C-35: View of ephemeral SA03, facing west.

Photo C-36: View of intermittent SA04, facing east.

Photo C-37: View of ephemeral SA05, facing southwest.

Photo C-38: View of ephemeral SA06, facing south.

Photo C-39: View of ephemeral SA07, facing west.

Photo C-40: View of ephemeral SA08, facing east.

Photo C-51: View of ephemeral SA17, facing south.

Photo C-52: View of perennial SA17, facing south.

Photo C-55: View of perennial SA20, Greasy Creek, facing north.

Photo C-56: View of perennial SA20, Greasy Creek, facing east.

Photo C-57: View of intermittent SA21, facing north.

Photo C-58: View of ephemeral SA22, facing south.

Photo C-59: View of ephemeral SA23, facing north.

Photo C-60: View of ephemeral SA24, facing south.

Photo C-61: View of intermittent SA25, facing south.

Photo C-62: View of ephemeral SA26, facing north.

Photo C-63: View of ephemeral SA27, facing south.

Photo C-64: View of intermittent SA28, facing south.

Photo C-65: View of intermittent SA29, facing southwest.

Photo C-66: View of ephemeral SA30, facing northeast.

Photo C-69: View of ephemeral SA33, facing west.

Photo C-70: View of ephemeral SA34, facing north.

Photo C-71: View of ephemeral SA34, facing north.

Photo C-72: View of ephemeral SA35, facing north.

Photo C-74: View of ephemeral SA37, facing north.

Photo C-75: View of ephemeral SA38, facing west.

Photo C-76: View of ephemeral SA39, facing northwest.

Photo C-79: View of ephemeral SA42, facing northeast.

Photo C-80: View of ephemeral SA43, facing south.

Photo C-88: View of ephemeral SA51, facing north.

Photo C-89: View of intermittent SA52, facing northeast.

Photo C-90: View of ephemeral SA53, facing north.

Photo C-91: View of intermittent SA54, facing northeast.

Photo C-92: View of ephemeral SA55, facing northwest.

Photo C-93: View of ephemeral SA56, facing west.

Photo C-94: View of ephemeral SA57, facing east.

Photo C-95: View of ephemeral SA58, facing northeast.

Photo C-96: View of intermittent SA59, facing south.

Photo C-97: View of ephemeral SA60, facing north.

Photo C-98: View of ephemeral SA61, facing southeast.

Photo C-99: View of ephemeral SA62, facing north.

Photo C-113: View of PA01, facing east.

Photo C-114: View of PA02, facing north.

Photo C-121: View of PA09, facing north.

Photo C-125: View of PA13, facing northwest.

Photo C-126: View of PA14, facing southeast.

Photo C-127: View of PA15, facing west.

Photo C-128: View of PA16, facing south.

Photo C-129: View of PA17, facing southeast.

Photo C-130: View of PA18, facing northwest.

Photo C-131: View of PA19, facing north.

Photo C-132: View of PA20, facing north.

Photo C-133: View of PA21, facing southeast.

Photo C-134: View of PA22, facing southeast.

Photo C-135: View of PA23, facing north.

Photo C-136: View of PA24, facing northwest.

Photo C-137: View of PA25, facing north.

Photo C-138: View of PA26, facing northwest.

Photo C-139: View of PA27, facing northeast.

Photo C-140: View of PA28, facing south.

Photo C-141: View of PA31, facing east.

Photo C-142: View of PA32, facing southeast.

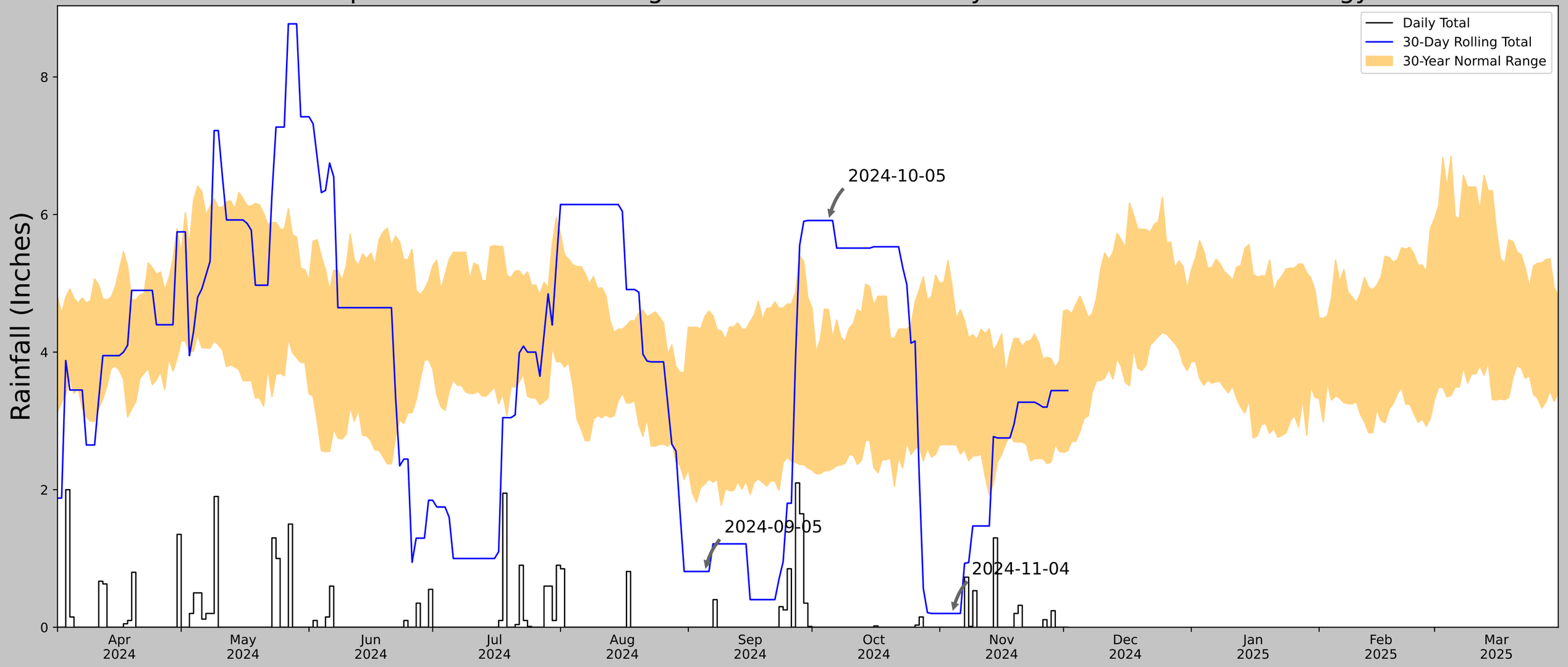
Photo C-143: View of PA33, facing northwest.

Photo C-144: View of PA34, facing north.

Photo C-145: View of PA35, facing northeast.

APPENDIX D - WETLAND DETERMINATION DATA FORMS

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.151259, -85.586374
Observation Date	2024-11-04
Elevation (ft)	762.771
Drought Index (PDSI)	Incipient drought (2024-10)
WebWIMP H_2O Balance	Wet Season

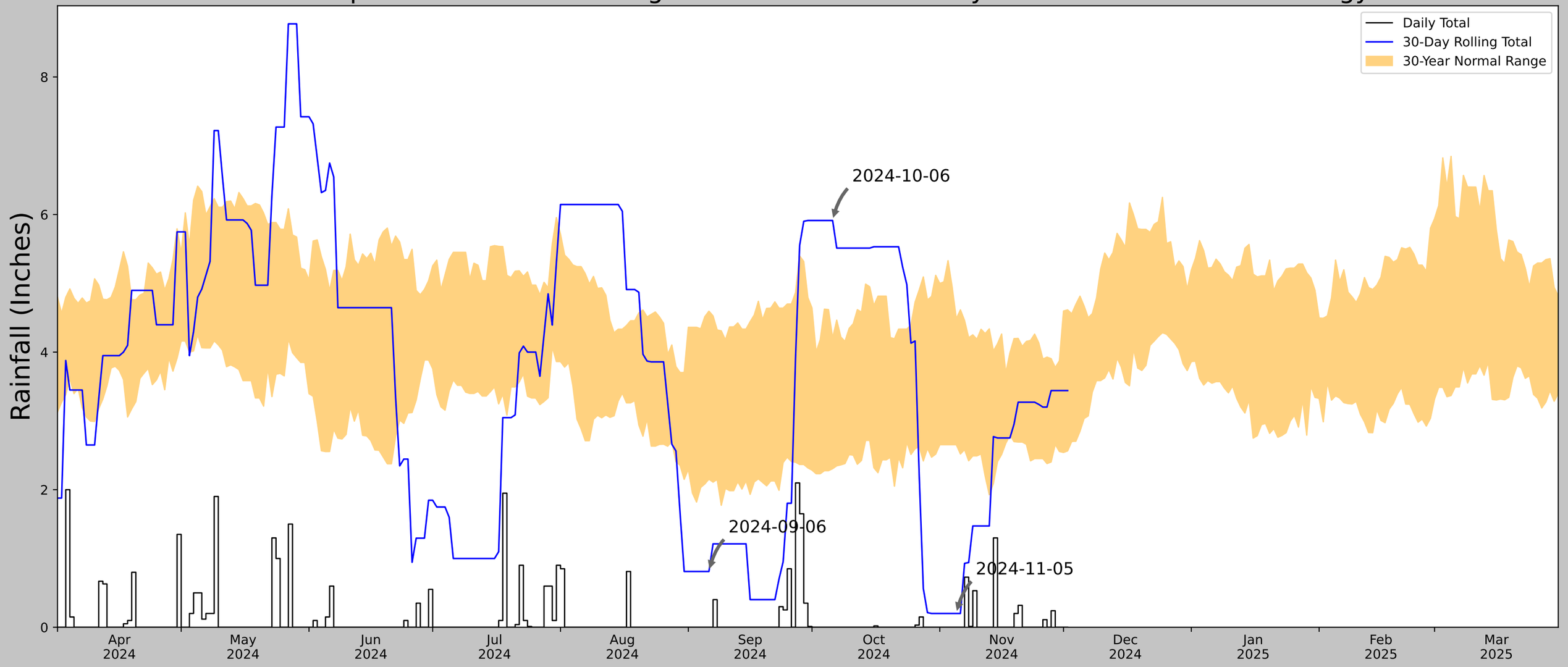
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-11-04	2.653543	4.945669	0.200787	Dry	1	3	3
2024-10-05	2.275984	4.618504	5.913386	Wet	3	2	6
2024-09-05	2.083071	4.515354	0.811024	Dry	1	1	1
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
GREENSBURG	37.2572, -85.5011	584.974	8.695	177.797	5.459	10345	76
GREENSBURG 5 SW	37.2333, -85.55	700.131	3.156	115.157	1.784	20	0
CAMPBELLSVILLE 3.4 SW	37.32, -85.4	808.071	7.051	223.097	4.746	2	0
CANMER 2.2 NE	37.3125, -85.7393	580.053	13.641	4.921	6.206	320	14
HISEVILLE 6.9 ENE	37.1414, -85.7015	779.856	13.626	194.882	8.787	1	0
COLUMBIA STATE POLICE	37.0897, -85.3045	845.144	15.846	260.17	11.253	146	0
KNOB LICK 1.0 WNW	37.0809, -85.7124	810.039	16.844	225.065	11.371	1	0
DUBRE 1.0 NE	36.8505, -85.5463	626.969	28.211	41.995	13.88	516	0
DUBRE 1.1 NNE	36.8525, -85.5488	639.108	28.086	54.134	14.159	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.151259, -85.586374
Observation Date	2024-11-05
Elevation (ft)	762.771
Drought Index (PDSI)	Incipient drought (2024-10)
WebWIMP H_2O Balance	Wet Season

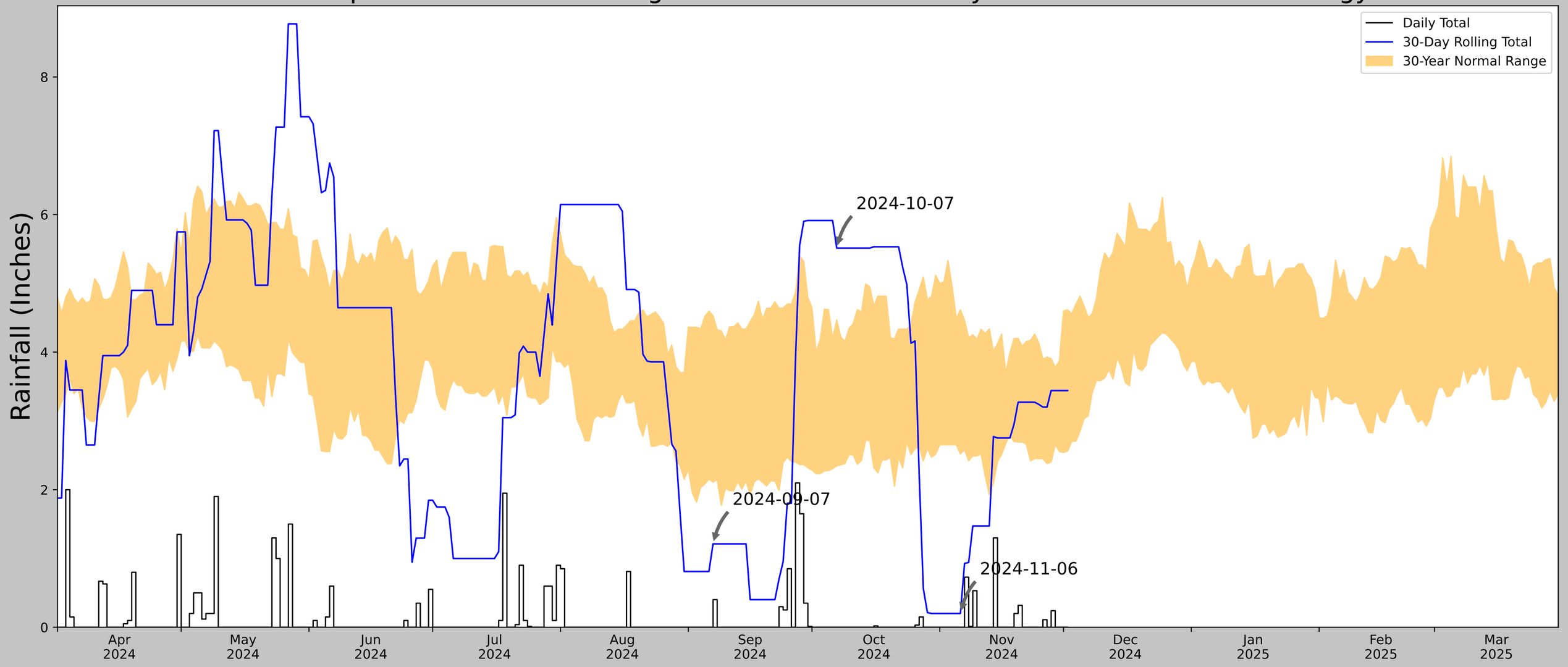
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-11-05	2.653543	4.48504	0.200787	Dry	1	3	3
2024-10-06	2.305118	4.205118	5.913386	Wet	3	2	6
2024-09-06	2.153543	4.595276	0.811024	Dry	1	1	1
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
GREENSBURG	37.2572, -85.5011	584.974	8.695	177.797	5.459	10345	76
GREENSBURG 5 SW	37.2333, -85.55	700.131	3.156	115.157	1.784	20	0
CAMPBELLSVILLE 3.4 SW	37.32, -85.4	808.071	7.051	223.097	4.746	2	0
CANMER 2.2 NE	37.3125, -85.7393	580.053	13.641	4.921	6.206	320	14
HISEVILLE 6.9 ENE	37.1414, -85.7015	779.856	13.626	194.882	8.787	1	0
COLUMBIA STATE POLICE	37.0897, -85.3045	845.144	15.846	260.17	11.253	146	0
KNOB LICK 1.0 WNW	37.0809, -85.7124	810.039	16.844	225.065	11.371	1	0
DUBRE 1.0 NE	36.8505, -85.5463	626.969	28.211	41.995	13.88	516	0
DUBRE 1.1 NNE	36.8525, -85.5488	639.108	28.086	54.134	14.159	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.151259, -85.586374
Observation Date	2024-11-06
Elevation (ft)	762.771
Drought Index (PDSI)	Incipient drought (2024-10)
WebWIMP H_2O Balance	Wet Season

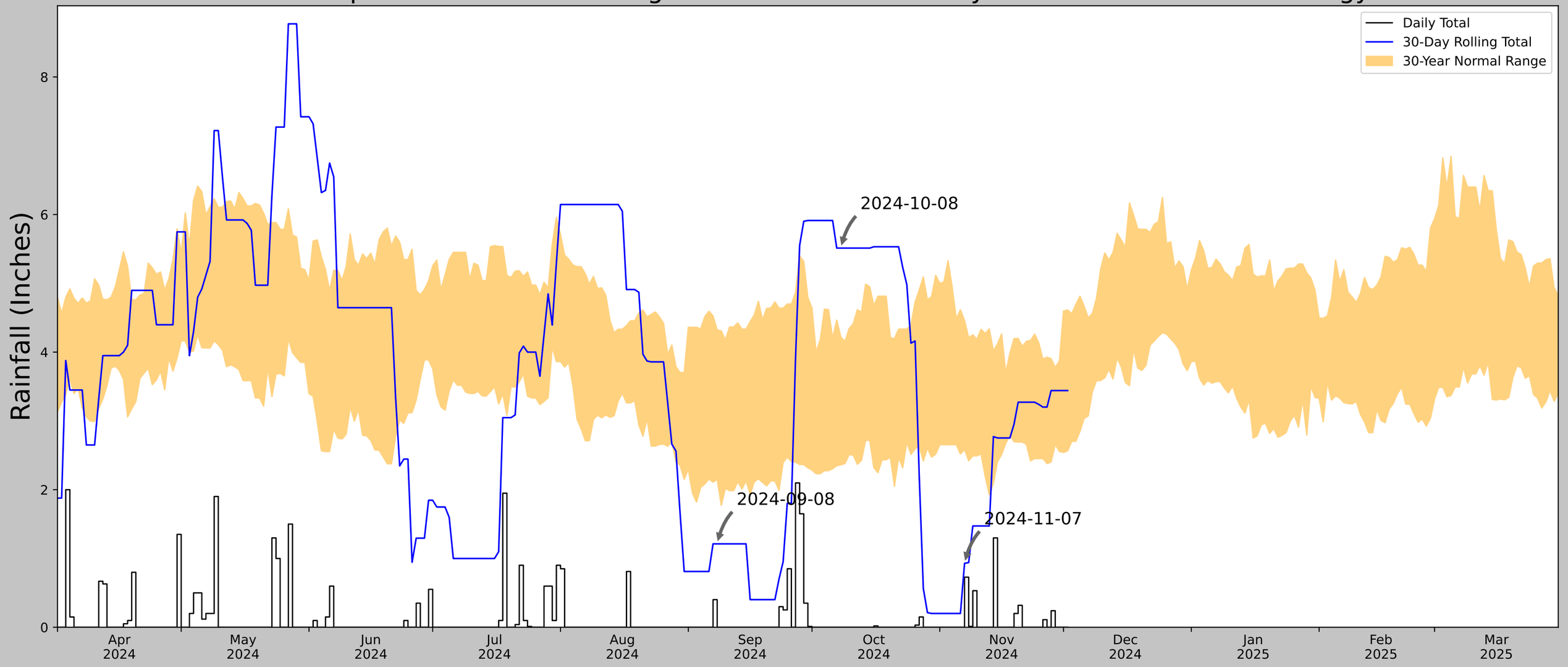
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-11-06	2.518504	4.614567	0.200787	Dry	1	3	3
2024-10-07	2.34685	4.464961	5.511811	Wet	3	2	6
2024-09-07	2.109449	4.526378	1.212598	Dry	1	1	1
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
GREENSBURG	37.2572, -85.5011	584.974	8.695	177.797	5.459	10345	76
GREENSBURG 5 SW	37.2333, -85.55	700.131	3.156	115.157	1.784	20	0
CAMPBELLSVILLE 3.4 SW	37.32, -85.4	808.071	7.051	223.097	4.746	2	0
CANMER 2.2 NE	37.3125, -85.7393	580.053	13.641	4.921	6.206	320	14
HISEVILLE 6.9 ENE	37.1414, -85.7015	779.856	13.626	194.882	8.787	1	0
COLUMBIA STATE POLICE	37.0897, -85.3045	845.144	15.846	260.17	11.253	146	0
KNOB LICK 1.0 WNW	37.0809, -85.7124	810.039	16.844	225.065	11.371	1	0
DUBRE 1.0 NE	36.8505, -85.5463	626.969	28.211	41.995	13.88	516	0
DUBRE 1.1 NNE	36.8525, -85.5488	639.108	28.086	54.134	14.159	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.151259, -85.586374
Observation Date	2024-11-07
Elevation (ft)	762.771
Drought Index (PDSI)	Incipient drought (2024-10)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-11-07	2.583071	4.46063	0.929134	Dry	1	3	3
2024-10-08	2.36063	4.218898	5.511811	Wet	3	2	6
2024-09-08	2.148425	4.322047	1.212598	Dry	1	1	1
Result							Normal Conditions - 10

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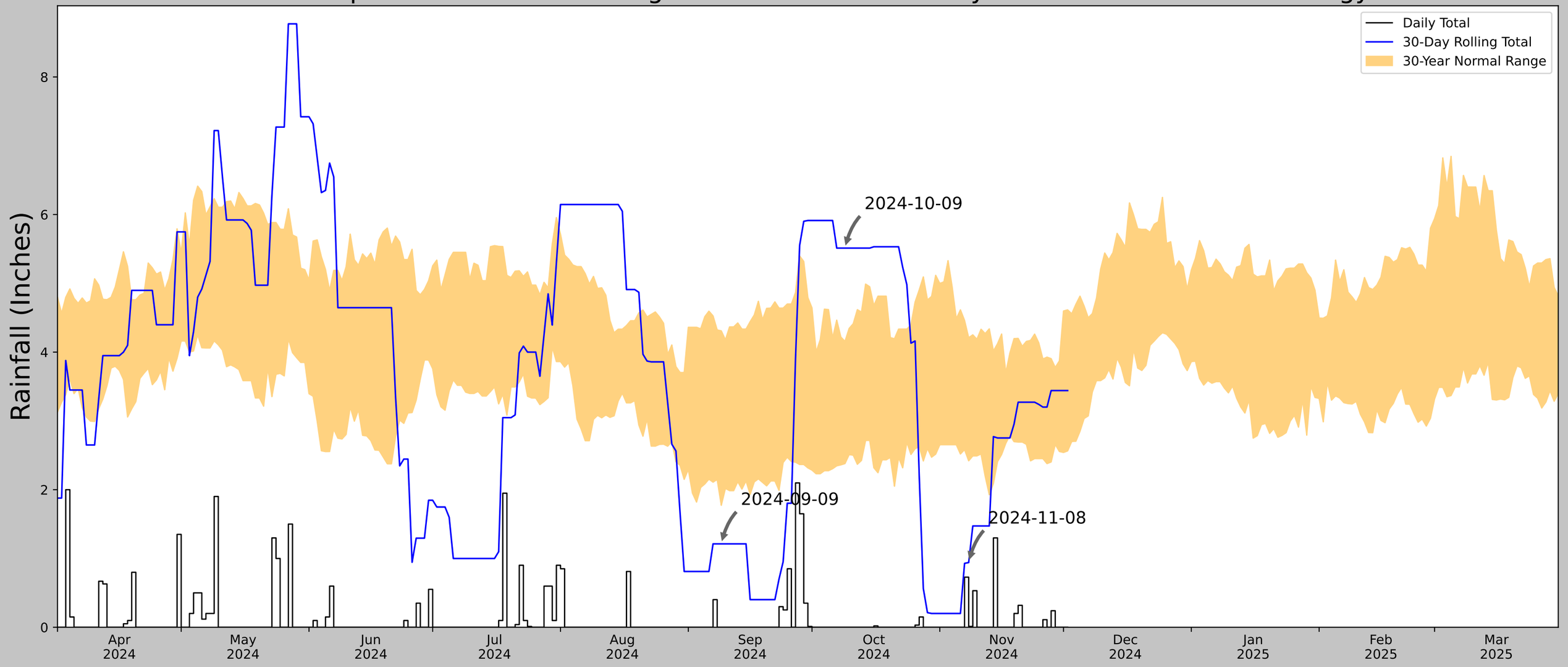
Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
GREENSBURG	37.2572, -85.5011	584.974	8.695	177.797	5.459	10345	75
GREENSBURG 5 SW	37.2333, -85.55	700.131	3.156	115.157	1.784	20	0
CAMPBELLSVILLE 3.4 SW	37.32, -85.4	808.071	7.051	223.097	4.746	2	0
CANMER 2.2 NE	37.3125, -85.7393	580.053	13.641	4.921	6.206	320	15
HISEVILLE 6.9 ENE	37.1414, -85.7015	779.856	13.626	194.882	8.787	1	0
COLUMBIA STATE POLICE	37.0897, -85.3045	845.144	15.846	260.17	11.253	146	0
KNOB LICK 1.0 WNW	37.0809, -85.7124	810.039	16.844	225.065	11.371	1	0
DUBRE 1.0 NE	36.8505, -85.5463	626.969	28.211	41.995	13.88	516	0
DUBRE 1.1 NNE	36.8525, -85.5488	639.108	28.086	54.134	14.159	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.151259, -85.586374
Observation Date	2024-11-08
Elevation (ft)	762.771
Drought Index (PDSI)	Incipient drought (2024-10)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-11-08	2.419685	4.209055	0.940945	Dry	1	3	3
2024-10-09	2.379528	4.155512	5.511811	Wet	3	2	6
2024-09-09	1.772835	4.309055	1.212598	Dry	1	1	1
Result							Normal Conditions - 10

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Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
GREENSBURG	37.2572, -85.5011	584.974	8.695	177.797	5.459	10345	74
GREENSBURG 5 SW	37.2333, -85.55	700.131	3.156	115.157	1.784	20	0
CAMPBELLSVILLE 3.4 SW	37.32, -85.4	808.071	7.051	223.097	4.746	2	0
CANMER 2.2 NE	37.3125, -85.7393	580.053	13.641	4.921	6.206	320	15
HISEVILLE 6.9 ENE	37.1414, -85.7015	779.856	13.626	194.882	8.787	1	0
COLUMBIA STATE POLICE	37.0897, -85.3045	845.144	15.846	260.17	11.253	146	0
KNOB LICK 1.0 WNW	37.0809, -85.7124	810.039	16.844	225.065	11.371	1	0
DUBRE 1.0 NE	36.8505, -85.5463	626.969	28.211	41.995	13.88	516	1
DUBRE 1.1 NNE	36.8525, -85.5488	639.108	28.086	54.134	14.159	2	0

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