

Wetland Delineation and Watercourse Identification Report

RURA FIELD PROJECT

BLACK LICK AND CENTER TOWNSHIPS
INDIANA COUNTY, PENNSYLVANIA

WETLAND DELINEATION AND WATERCOURSE IDENTIFICATION REPORT

Prepared for:



*Homer City Generation LP
1750 Power Plant Road
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INTRODUCTION

Homer City Generation LP is proposing to develop a 146-acre parcel known as the Rura Field in Center and Black Lick Townships, Indiana County, Pennsylvania (**Figure 1**). Power Plant Road bisects the parcel, and current land use within the study area consists of agriculture and open space (woodlands, meadows, and wetlands). Surrounding land use includes agriculture, open space (woodlands and wetlands), residential, and commercial. Plant communities within the study area are those typical of the area and include agricultural fields (soybeans and corn), maintained and unmaintained grasslands (lawn and meadow), forest, floodplain, and palustrine scrub-shrub (PSS), and palustrine emergent (PEM) wetlands.

A delineation for potential jurisdictional wetlands and waterways was conducted on September 12, 2024- September 13, 2024, and October 16, 2024, by Michael Baker International (MBI) biologists.

METHODOLOGY

Wetland Methodology

Prior to fieldwork, biologists from MBI conducted a desktop assessment of the study area. A typical desktop assessment includes evaluating aerial imagery and site topography; a review of the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) for documented wetlands (**Figure 2**); streams identified within the National Hydrography Dataset (NHD), hydric soils, potential habitats for rare, threatened, or endangered species, and a review of the Pennsylvania Department of Environmental Protection (PADEP) eMapPA system for known watercourses within the project area. Data from soil surveys were also reviewed to identify areas of major and minor hydric components within the study area (**Figure 3**).

Wetlands are delineated using the methods and criteria described in the United States Army Corps of Engineers (USACE) *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0* (USACE, 2012) and the USACE *Wetlands Delineation Manual* (Environmental Laboratory, 1987). An area must meet USACE criteria for hydrology, plant communities, and soils to be considered a wetland. If adequate evidence has been observed to determine a wetland area, it is classified according to the USFWS *Classification of Wetlands and Deepwater Habitats for the United States* (Cowardin et al., 1979).

Once a potential wetland has been identified, it is examined for sources of hydrology, hydrophytic plant communities, and evidence of redoximorphic (redox) features and anaerobic conditions in the soil horizons. Areas are then evaluated for evidence of wetland hydrology, such as ponding or flowing surface waters, saturated soils, dead or stressed vegetation, oxidized rhizospheres on living roots, and position in the landscape.

Plants are identified to the taxonomic level of species, and each indicator status is recorded using the *National Wetland Plant List* website (USACE, 2024). If a delineation is conducted outside of the growing season, plant identification is performed using live plants, basal rosettes, persistent seed pods, tree and shrub buds, persistent leaves, bark, bud scars, and distinctive sprouts, such as skunk cabbage (*Symplocarpus foetidus*) and moneywort (*Lysimachia nummularia*).

Soil test pits are dug using a 16-inch spade, while general soil test areas are sampled with a Dutch auger. Representative photographs are taken at each soil test pit (**Figure 4** and **Appendix A**). Soil horizons are examined for redox features and classified by texture (i.e., the composition of silt, sand,

and clay) and color according to criteria outlined in the 1987 *Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Munsell® Soil Color Chart* (Munsell Color, 2010).

All soil test pits, wetlands, and other notable features are mapped on a handheld tablet equipped with Uinta software and a Trimble DA-2 Catalyst Global Navigation Satellite System (GNSS) receiver, or equivalent, with sub-meter accuracy. Wetlands are flagged where appropriate, and USACE data forms are completed for each wetland and upland sample point (**Appendix B**). Additional upland data points may be taken in ambiguous locations (i.e., heavily disturbed areas receiving hydrology from seeps or springs or areas exhibiting other wetland-like qualities) but do not meet all criteria. Qualified biologists (**Appendix C**) may also classify wetlands as open-ended or closed. An open-ended wetland extends beyond the defined study area. If a wetland is described as closed, the entire perimeter is within the study area and has been mapped.

Watercourse Methodology

Watercourses include traditionally navigable surface waters, such as rivers, large streams, and lakes, and those not deemed traditionally navigable, such as small streams or ponds. Any waterway may be jurisdictional and should be evaluated by qualified biologists. While rivers, lakes, and ponds can be more generally classified and are often historically identified features within the landscape, smaller streams are often unrecorded.

Prior to fieldwork, biologists from MBI conducted a desktop assessment of the study area. A typical desktop assessment includes evaluating aerial imagery and site topography, the NWI mapping, and NHD for previously documented watercourses.

Following the desktop assessment, qualified biologists from MBI perform an on-site investigation to evaluate a defined study area for watercourses. They gather critical watercourse characteristics such as a defined bed and bank, substrate composition, flow regime, hydrology source, ordinary high-water mark (OHWM), and general geomorphology. Streams must exhibit a defined bed and bank and contain flowing or standing water for at least a portion of the year. In addition, streams may meet the criteria for one or more of the following flow regime definitions outlined by the USACE (i.e., perennial, intermittent, or ephemeral):

- **Perennial:** A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- **Intermittent:** An intermittent stream has flowing water during certain times of the year when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.
- **Ephemeral:** An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Watercourses are mapped on a handheld tablet equipped with Uinta software and a Trimble DA-2 Catalyst Global Navigation Satellite System (GNSS) receiver, or equivalent, with sub-meter accuracy and flagged where appropriate.

FIELD INVESTIGATORS

Crystal Roemer, PWS – Michael Baker International, Inc.

Trevor Surgener – Michael Baker International, Inc.

SITE CONDITIONS

Delineation Date: September 12-13, October 16, 2024

Temperature: 80°F; 80°F; 48°F

Weather Conditions: Sunny/Clear; Sunny/Clear; Overcast

Precipitation in Past 24 Hours: 0.00"; 0.00"; 0.03" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)

Total Precipitation in Past 7 Days: 0.84"; 0.84"; 0.38" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)

RESULTS

Wetlands

During the desktop review, four NWI wetlands (**Figure 2**), one soil with major hydric components, and five soils with minor hydric components (**Table 1** and **Figure 3**) were identified within the study area.

Table 1 – Hydric Soils and Soils with Hydric Inclusions

Map Unit Code	Soil Name	Hydric Rating*
AhB	Allegheny silt loam, 3 to 8 percent slopes	0
BuB	Buchanan loam, 3 to 8 percent slopes	5
BuC	Buchanan loam, 8 to 15 percent slopes	3
ChA	Chavies fine sandy loam, 0 to 2 percent slopes	0
ErB	Ernest silt loam, 3 to 8 percent slopes	5
GcB	Gilpin channery silt loam, 3 to 8 percent slopes	0
HnC	Hazleton channery sandy loam, 8 to 15 percent slopes	0
HnD	Hazleton channery sandy loam, 15 to 25 percent slopes	0
HnF	Hazleton channery sandy loam, 25 to 75 percent slopes	0
MoA	Monongahela silt loam, 0 to 3 percent slopes	5
PuA	Purdy silt loam, 0 to 2 percent slopes	75
TyA	Tyler silt loam, 0 to 2 percent slopes	5
WhC	Wharton silt loam, 8 to 15 percent slopes	0

*Hydric Rating based on the National Resource Conservation Service's Web Soil Survey Hydric Soil Rating scale, which provides a percentage of each map unit classified as hydric (USDA, 2024).

During the on-site delineation, two wetlands were identified within the study area (**Figure 4**). A description of each wetland is provided below and in **Table 2**. Photographs and data forms for each wetland are in **Appendix A** and **Appendix B**, respectively.

Table 2 – Delineated Wetlands

Wetland ID	Cowardin Classification	Abutting or Adjacent to Waterway (Yes/No)	Open or Closed Delineation ¹	Total Wetland within Study Area (acres)
W-01	PEM	No	Closed	0.155
W-02a	PEM	Yes	Open	2.950
W-02b	PSS	No	Closed	0.340
W-02c	PEM	No	Closed	0.218
Total				3.663

¹Wetlands identified as "Closed" are those in which the entire boundary of the wetland is located within the study area. Wetlands identified as "Open-Ended" continue beyond the limits of the study area and were not delineated in their entirety.

Wetland W-01 is a 0.155-acre PEM wetland located in the southwestern portion of the study area and is in a depression within an agricultural field. The wetland's vegetation is sparse, and cracks in the surface soil were observed. Dominant wetland vegetation consists of *Panicum dichotomoflorum* (panic grass), *Echinochloa crus-galli* (barnyard grass), and *Cyperus esculentus* (yellow nutsedge). Hydrology is received from surface runoff and groundwater. Soils are compacted and disturbed, texture is silty clay loam (SiCL) with small sand inclusions from eroded sandstone. Redoximorphic concentrations in the pore linings and depletions in the matrix were observed.

Wetland W-02 is a 3.508-acre wetland complex located in the southwestern portion of the study area. This complex comprises one PSS component (W-02b) bordered by two PEM components (W-02a, W02c). A description of each is below.

W-02a is a 2.950-acre PEM wetland located in the southwestern quadrant of the study area. Wetland W-02a hydrology generally follows previous earth disturbances under the existing powerline transmission infrastructure. Vegetation within wetland W-02a is predominately grasses and forbs, with woody shrubs on its periphery near the upland forest. Dominant vegetation consisted of *Epilobium coloratum* (purple-leaf willowherb), *Solidago gigantea* (giant goldenrod), *Apocynum cannabinum* (dogbane), *Vernonia noveboracensis* (New York ironweed), and *Glyceria striata* (fowl mannagrass), with *Cornus amomum* (silky dogwood) present on wood line fringes. Hydrology is received from surface runoff and groundwater. The soil texture was silty clay loam (SiCL), and redoximorphic concentrations were observed.

W-02b is a 0.340-acre PSS portion of wetland W-02 located in a depression in the southwest quadrant of the study area. Vegetation within wetland W-02b is a mix of trees, grasses, and forbs. Woody shrubs were the most dominant vegetation stratum. Dominant vegetation includes *Cornus racemosa* (gray dogwood), *Viburnum denatum* (northern viburnum), *Quercus rubra* (red oak), *Salix nigra* (black willow) and *Lysimachia nummularia* (creeping jenny). Hydrology is received from surface runoff, groundwater, and wetland W-02a. Soils exhibited redoximorphic features, soil texture consisted of silty-clay loam (SiCL).

W-02c is a 0.218-acre PEM portion of wetland W-02 located in the southwestern quadrant of the study area. Vegetation within wetland W-02c is predominately grasses and forbs, with woody shrubs and trees present on its edge. Dominant vegetation consisted of *Typha angustifolia* L. (narrowleaf cattail), *Microstegium vimineum* (Japanese stiltgrass), *Acer saccharinum* (silver

maple), and *Cornus racemosa* (gray dogwood). Hydrology is received from surface runoff, groundwater, and wetland W-02b. Soil texture was silty clay loam (SiCL), redox concentrations were observed.

Watercourses

Two perennial (PER) watercourse were identified on the NWI and NHD during the desktop review; Tributary (Trib) 44075 to Two Lick Creek and Tributary (Trib) 44076 to Two Lick Creek. The presence of these resources was confirmed during the on-site survey (**Figure 4** and **Appendix A**).

The study area is within the Two Lick Creek-Black Lick Creek watershed (Hydrologic Unit Code [HUC] 12: 050100070804). All watercourses ultimately convey hydrology to the greater Conemaugh River watershed (HUC8: 05010007).

Per Pennsylvania Code, Chapter 93 Water Quality Standards, Trib 44075 and Trib 44076 to Two Lick Creek and all associated unnamed tributaries (UNTs) have a designated use of cold water fishes (CWF). These streams are not designated by Pennsylvania Fish and Boat Commission (PFBC) as approved trout waters; therefore, they are not subject to in-stream construction time-and-date restrictions. A summary of streams within the study area is provided below and in **Table 3**.

Table 3 - Watercourses

Reach ID	Gradient	Flow Regime	Average Water Depth (inches)	Average Bank Depth (inches)	Average Channel Width (inches)	Average Ordinary High-water Mark (inches)	Average Top of Bank Width (inches)
S-01 (Trib 44075 to Two Lick Creek)	High	PER	2.5"	92.5"	74.0"	116.0"	336.0"
S-01a (Trib 44076 to Two Lick Creek)	High	PER	1.5"	57.0"	59.0"	228.0"	335.0"

S-01 (Trib 44075 to Two Lick Creek) is a high gradient PER stream located at the western extent of the study area. It originates north of the study area and flows generally southwest to Two Lick Creek. Stream S-01 receives hydrology from surface runoff, groundwater, and stream S-01a. Flow is ultimately conveyed to Two Lick Creek. Stream S-01 has a designated use of CWF.

S-01a (Trib 44076 to Two Lick Creek) is a high-gradient EPH stream originating northwest of the of the study area. Stream S-01a receives hydrology from surface runoff and generally flows southeast into the study area until its confluence with S-01. Stream S-01a has a designated use of CWF.

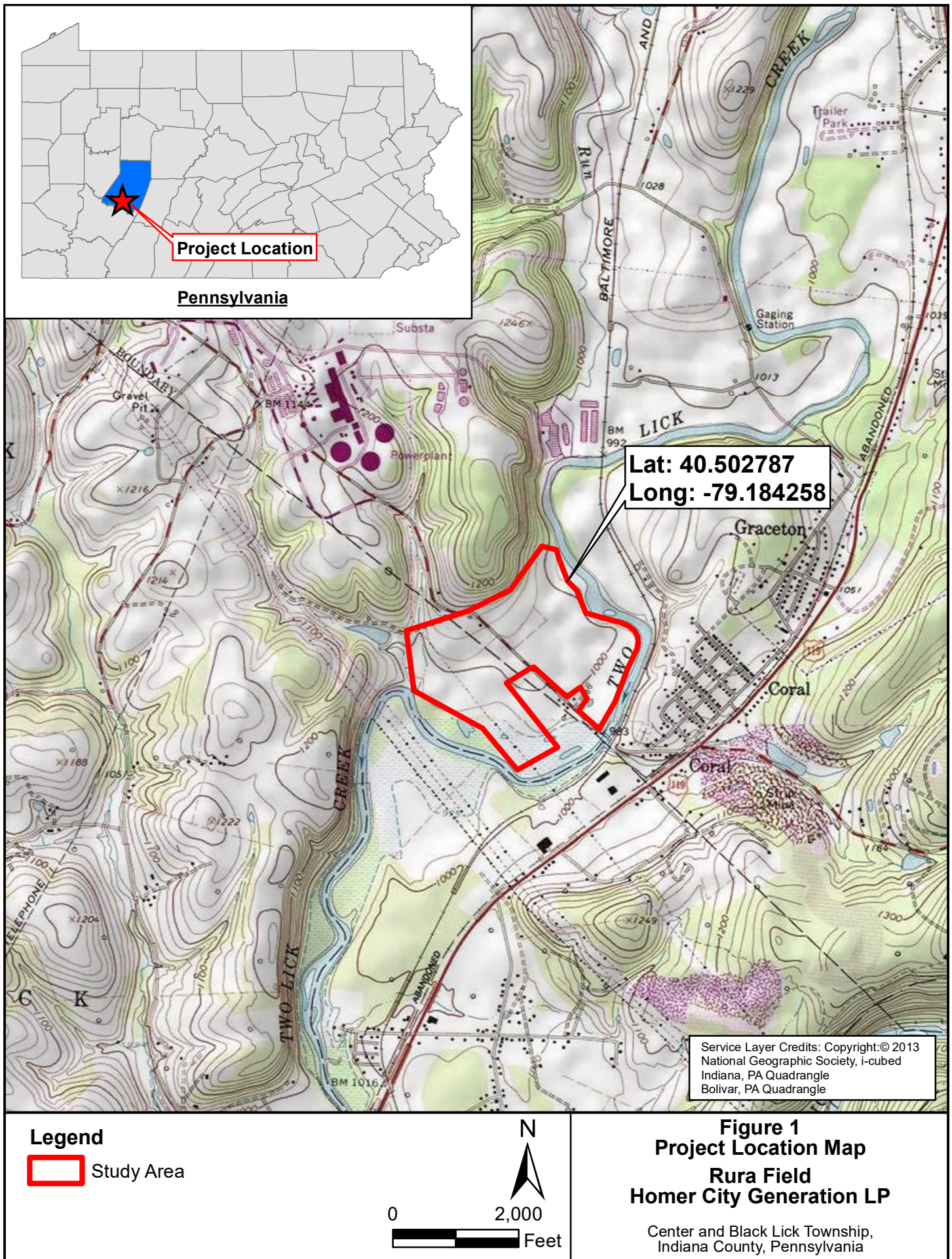
CONCLUSION

Two PER stream reaches and two wetlands (PEM and PEM/PSS complex) totaling 3.663 were identified within the study area. All watercourses have a designated use of CWF per Pennsylvania Code, Chapter 93 Water Quality Standards. One portion of PEM wetland W-02a extended beyond the study area. Of the. All features are assumed jurisdictional for the purposes of this report; however, wetland W-01 may not be jurisdictional under the current definition of Waters of the United States (WOTUS). If a formal determination is desired to determine whether this resource is a WOTUS, a Jurisdictional Determination from USACE would need to be requested. Only the USACE may formally decide whether a wetland or waterway is a WOTUS. If changes to the current regulations and definitions are enacted, these conclusions should be reevaluated to ensure compliance. If project design changes require additional areas beyond the study area defined in this report, further field studies may be necessary.

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FIGURES





Service Layer Credits:
PEMA 2018 Aerials
Field Survey, June 2024

Legend

 Study Area

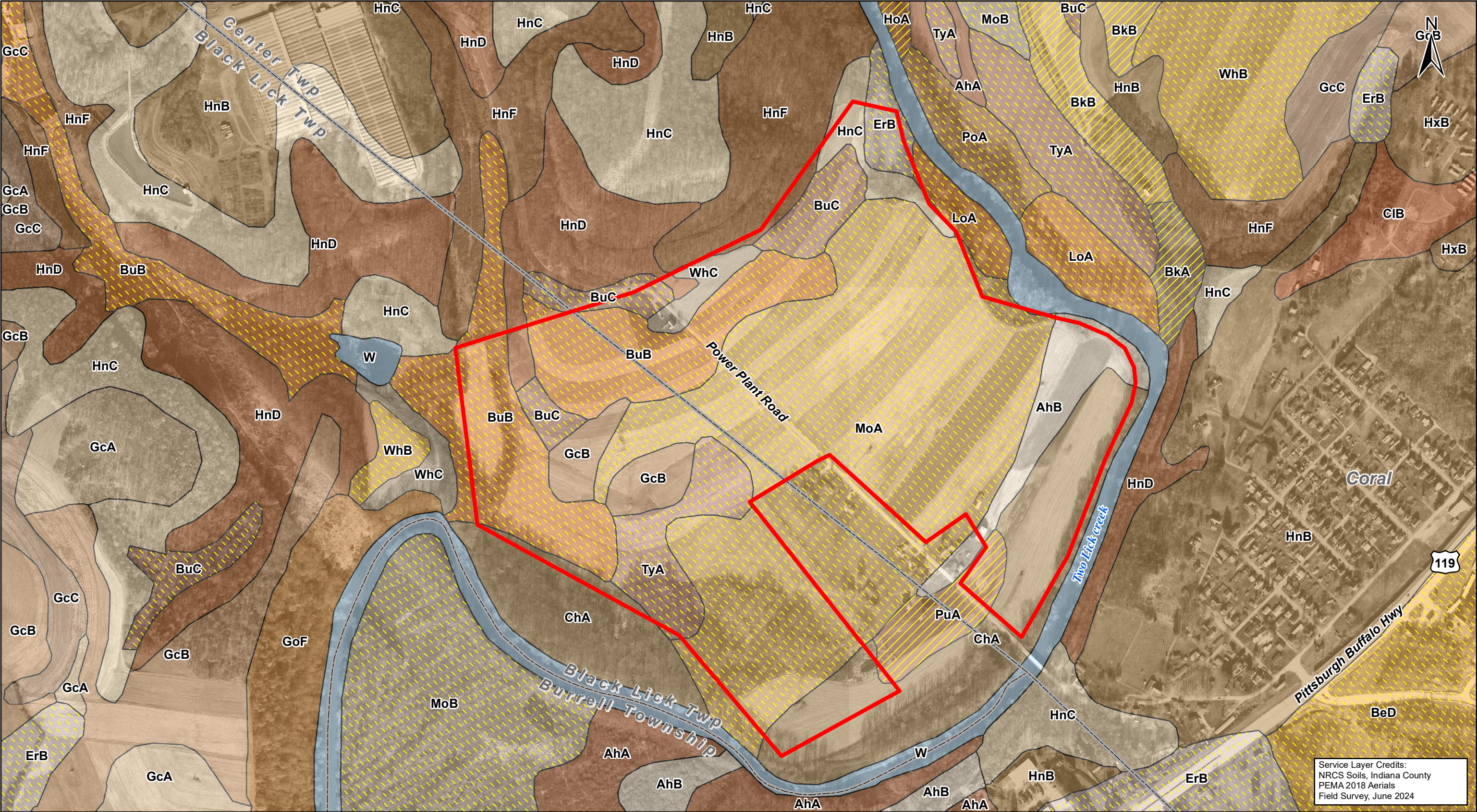
NWI Wetlands

- | | | |
|---|---|---|
|  L1UBHh |  PUBHx |  R5UBH |
|  PSS1/EM1C |  R2UBH | |
|  PUBH |  R4SBC | |

0 500
 Feet

Figure 2
NWI Wetlands
Rura Field
Homer City Generation LP

Center and Black Lick Township,
Indiana County, Pennsylvania



Service Layer Credits:
 NRCS Soils, Indiana County
 PEMA 2018 Aerials
 Field Survey, June 2024

Legend

Study Area

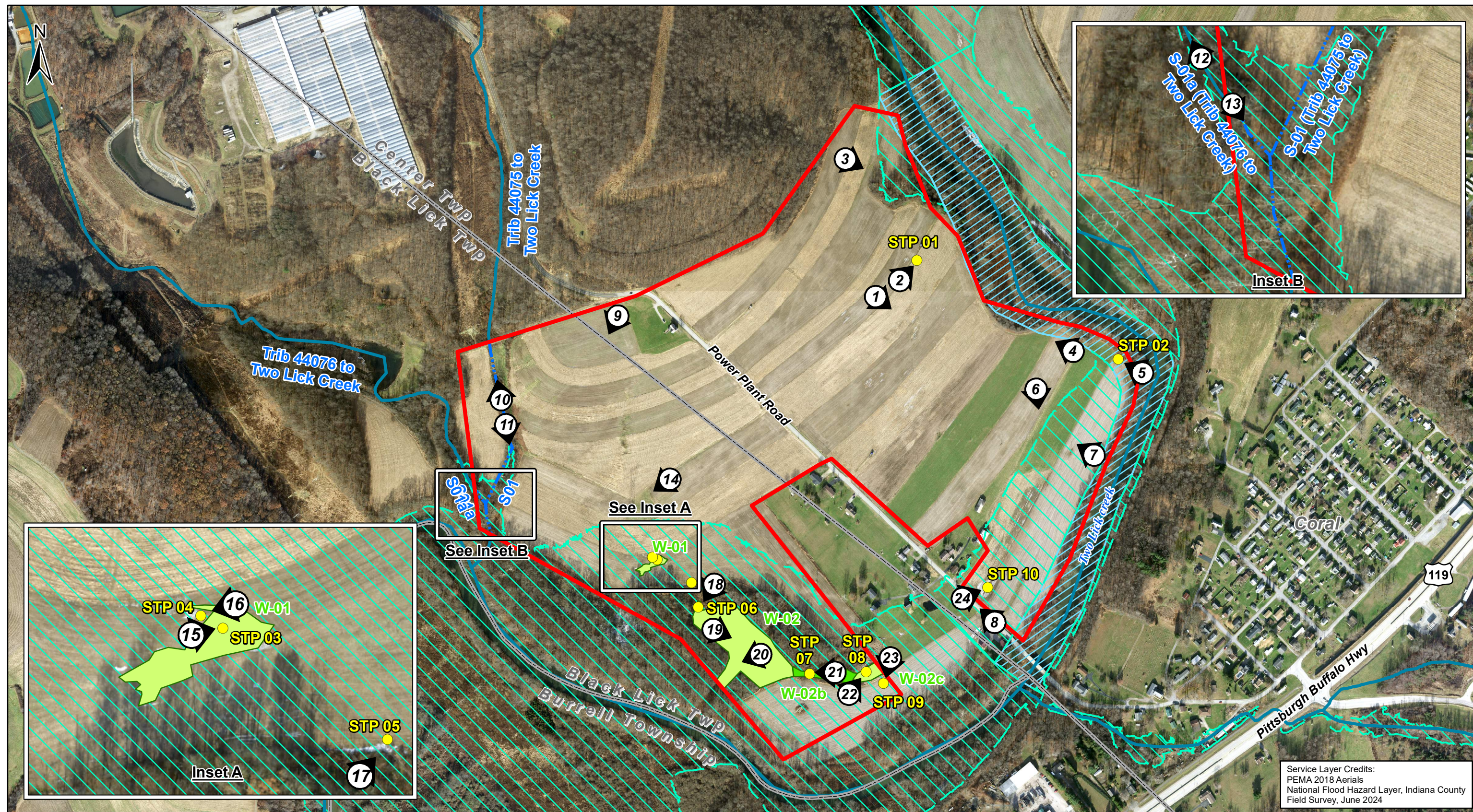
Soil Class

AhA	BkA	BuC	ErB	GcC	HnC	HoA	MoA	PuA	WhB	Major Hydric Components
AhB	BkB	ChA	GcA	GoF	HnD	HxB	MoB	TyA	WhC	Minor Hydric Components
BeD	BuB	ClB	GcB	HnB	HnF	LoA	PoA	W		



Figure 3
Site Soils
Rura Field
Homer City Generation LP

Center and Black Lick Township,
 Indiana County, Pennsylvania



Legend

- Study Area
- NHD Stream

Surveyed Wetlands

- Palustrine Scrub-Shrub (PSS)
- Palustrine Emergent (PEM)

Surveyed Stream

- Perennial

- 100-Year Floodplain
- Floodway

- Soil Test Pit

- 1 Photo Number and Direction

0 500
Feet

Figure 4
Aquatic Resources
Rura Field
Homer City Generation LP

Center and Black Lick Township,
Indiana County, Pennsylvania

Service Layer Credits:
PEMA 2018 Aerials
National Flood Hazard Layer, Indiana County
Field Survey, June 2024

APPENDIX A

SITE PHOTOGRAPHS



Photograph 1 – Overview of agricultural field in the central eastern study area.
(facing southeast).



Photograph 2 – Overview of upland sample point STP-01 within agricultural field.
(facing northeast).



Photograph 3 – Overview of edge of agricultural field in the eastern part of the study area (facing southeast).



Photograph 4 – Overview of agricultural field in the northeastern part of the study area (facing northwest).



Photograph 5 – View of upland point STP-04 in the northeastern part of the study area along the edge of agricultural field, STP-04 lacked hydrophytic wetland vegetation. (facing northwest).



Photograph 6 – Overview of the eastern agricultural field (facing southeast).



Photograph 7 – Overview of the eastern agricultural field (facing northwest).



Photograph 8 – Overview of center of the study area and residential property along Power Plant Road (facing northwest).



Photograph 9 – Overview of agricultural field in western part of the study area (facing southwest).



Photograph 10 –View of stream S-01 (Trib 44075 to Two Lick Creek) from an existing bridge in western portion of the study area (facing upstream).



Photograph 11 – View of stream S-01 (Trib 44075 to Two Lick Creek) from existing bridge in western portion of the study area (facing downstream).



Photograph 12 – Overview of stream S-01a (Trib 44076 to Two Lick Creek) in western portion of the study area (facing upstream).



Photograph 13 – Overview of stream S-01a (Trib 44076 to Two Lick Creek) in western portion of the study area (facing downstream).



Photograph 14 – Overview of agricultural field along existing power infrastructure in the western portion of the agricultural field (facing southwest).



Photograph 15 – Overview of STP-03 within PEM wetland W-01. Wetland W-01 exhibited surface soil cracks and a sparsely vegetated concave surface (facing northeast).



Photograph 16 – Overview of upland sample point STP-04 within western agricultural field, north of wetland W-01 (facing west).



Photograph 17 – Overview of upland point STP-05 on the southern fringe of western agricultural field (facing northeast).



Photograph 18 – Overview of STP-06 within PEM wetland W-02a (facing southwest).



Photograph 19 – Overview of PEM wetland W-02a along utility right-of-way (facing southeast).



Photograph 20 – Overview of PEM wetland W-02a where it continues out of the study area towards Two Lick Creek (facing southwest).



Photograph 21 – Overview of PSS wetland W-02b
(facing west).



Photograph 22 – Overview of STP-08 within PEM wetland W-02c
(facing northeast).



Photograph 23 – Overview of upland point STP-09 on the fringe of agricultural field (facing southwest).



Photograph 24 – Overview of upland point STP-10 within agricultural field (facing northeast).

APPENDIX B DATA FORMS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 09/12/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-01
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.50531667 Long: -79.18183667 Datum: NAD83
Soil Map Unit Name: MoA: Monongahela silt loam, 0 to 3 percent slopes NWI classification: N/A

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:

Weather: Sunny/Clear, 80°F. Precipitation in Past 24 Hours: 0.00", Total Precipitation in Past 7 Days: 0.84" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-01 upland point is located in a depression within an agriculture field (soybean).

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Moss Trim Lines (B16)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7)		☒ Geomorphic Position (D2)
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
☐ Aquatic Fauna (B13)		☐ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

One secondary hydrological indicator observed, not enough to qualify wetland hydrology.
Hydrology is significantly disturbed due to agricultural activity.

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: STP-01

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Glycine max</u>	98	☒	☐	UPL
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
98 = Total Cover				
50% of total cover: <u>49.0</u>		20% of total cover: <u>19.6</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>98</u>	x 5 = <u>490</u>
Column Totals: <u>98</u> (A)	<u>490</u> (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

Upland plant community observed.

SOIL

Sampling Point: STP-01

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 09/12/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-02
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.503893° Long: -79.177878° Datum: NAD83
Soil Map Unit Name: AhB: Allegheny silt loam, 3 to 8 percent slopes NWI classification: N/A

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:

Weather: Sunny/Clear, 80°F. Precipitation in Past 24 Hours: 0.00", Total Precipitation in Past 7 Days: 0.84" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-02 upland point is located in a depression on the edge of an agricultural field.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		☒ Surface Soil Cracks (B6)
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☒ Sparsely Vegetated Concave Surface (B8)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Moss Trim Lines (B16)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Dry-Season Water Table (C2)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Crayfish Burrows (C8)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Saturation Visible on Aerial Imagery (C9)
☒ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		☒ Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7)		☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)		☐ Microtopographic Relief (D4)
☐ Aquatic Fauna (B13)		☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

Hydrological indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: STP-02

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Zea mays</u>	<u>5</u>	☒	☐	<u>UPL</u>
2. <u>Carex pensylvanica</u>	<u>2</u>	☒	☐	<u>UPL</u>
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
7 = Total Cover				
50% of total cover: <u>3.5</u>		20% of total cover: <u>1.4</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

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

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

 Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>7</u>	x 5 = <u>35</u>
Column Totals: <u>7</u> (A)	<u>35</u> (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

 Upland plant community observed.

SOIL

Sampling Point: STP-02

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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) |
| ☐ | Polyvalve 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) |
| ☐ | Umbria Surface (F13) (MLRA 136, 122) |
| ☐ | Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

No hydric soil indicators observed.
Soils are significantly disturbed due to agricultural activity.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 09/13/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-03
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.500790° Long: -79.186812° Datum: NAD83
Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 percent slopes NWI classification: N/A

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 ☐	Hydic Soil Present? Yes ☒ No ☐	Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: Weather: Sunny/Clear, 80°F. Precipitation in Past 24 Hours: 0.00", Total Precipitation in Past 7 Days: 0.84" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E) STP-03 is located in a depression within PEM wetland W-01.			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☐ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> ☒ Surface Soil Cracks (B6) ☒ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Hydrological indicators observed.		

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: STP-03

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Panicum dichotomiflorum</u>	<u>25</u>	☒	☐	<u>FACW</u>
2. <u>Echinochloa crus-galli</u>	<u>20</u>	☒	☐	<u>FAC</u>
3. <u>Cyperus esculentus</u>	<u>20</u>	☒	☐	<u>FACW</u>
4. <u>Glyceria striata</u>	<u>5</u>	☐	☐	<u>OBL</u>
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
70 = Total Cover				
50% of total cover: <u>35.0</u>		20% of total cover: <u>14.0</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>155</u> (B)

Prevalence Index = B/A = 2.21

Hydrophytic Vegetation Indicators:

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

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

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic plant community observed.

SOIL

Sampling Point: STP-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 5/2	90	7.5YR 5/8	10	C	PL	SiL	
4-16	2.5Y 4/1	70	7.5YR 5/8	15	C	PL	SiL	
			Gley 1 2.5/N	15	D	M		

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

²Location: 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 Soils³:

☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

Hydric soil indicators observed.
Soils are compacted and significantly disturbed due to agricultural activity.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 09/13/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-04
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.500828° Long: -79.186902° Datum: NAD83
Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 percent slopes NWI classification: N/A

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:

Weather: Sunny/Clear, 80°F. Precipitation in Past 24 Hours: 0.00", Total Precipitation in Past 7 Days: 0.84" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-04 is located adjacent to STP-03 and wetland W-01 in an upland area.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		☒ Surface Soil Cracks (B6)
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☒ Sparsely Vegetated Concave Surface (B8)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Moss Trim Lines (B16)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Dry-Season Water Table (C2)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Crayfish Burrows (C8)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Saturation Visible on Aerial Imagery (C9)
☒ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		☐ Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7)		☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)		☐ Microtopographic Relief (D4)
☐ Aquatic Fauna (B13)		☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Hydrologic indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: STP-04

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Zea mays</u>	15	☒	☐	UPL
2. <u>Cirsium arvense</u>	10	☒	☐	FACU
3. <u>Cyperus esculentus</u>	5	☐	☐	FACW
4. <u>Glyceria striata</u>	5	☐	☐	OBL
5. <u>Physalis pubescens</u>	5	☐	☐	FACU
6. <u>Phytolacca americana</u>	5	☐	☐	FACU
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
45 = Total Cover				
50% of total cover: <u>22.5</u>		20% of total cover: <u>9.0</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

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

 Upland plant community observed.

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

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

 Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>45</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 3.78

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 ☒

SOIL

Sampling Point: STP-04

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

[illegible]

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

²Location: 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) |
| ☐ | Umbria Surface (F13) (MLRA 136, 122) |
| ☐ | Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soil indicators observed.
Soils are compacted and significantly disturbed due to agricultural activity.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: RURA Field City/County: Blairsville/Indiana Sampling Date: 09/13/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-05
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2-4
Subregion (LRR or MLRA): LRR N Lat: 40.500453° Long: -79.186135° Datum: NAD83
Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 percent slopes NWI classification: N/A

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: Weather: Sunny/Clear, 80°F. Precipitation in Past 24 Hours: 0.00", Total Precipitation in Past 7 Days: 0.84" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E) STP-05 is located in an upland area on the fringe of an agricultural field, southeast of wetland W-01 and north of wetland W-02..			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)	
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)	
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Moss Trim Lines (B16)	
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)	
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)	
☐ Inundation Visible on Aerial Imagery (B7)		☒ Geomorphic Position (D2)	
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)	
☐ Aquatic Fauna (B13)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☐ No ☒ Depth (inches): _____	Wetland Hydrology Present? Yes ☐ No ☒	
Water Table Present?	Yes ☐ No ☒ Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes ☐ No ☒ Depth (inches): _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: One secondary hydrological indicator observed, not enough to qualify wetland hydrology.			

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: STP-05

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Panicum dichotomiflorum</u>	60	☒	☐	FACW
2. <u>Cyperus esculentus</u>	10	☐	☐	FACW
3. <u>Apocynum cannabinum</u>	10	☐	☐	FACU
4. <u>Vernonia noveboracensis</u>	10	☐	☐	FACW
5. <u>Persicaria pensylvanica</u>	5	☐	☐	FACW
6. <u>Xanthium strumarium</u>	5	☐	☐	FAC
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
100 = Total Cover				
50% of total cover: <u>50.0</u>		20% of total cover: <u>20.0</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>85</u>	x 2 = <u>170</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>225</u> (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

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

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic plant community observed.

SOIL

Sampling Point: STP-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-4	10YR 4/3	90	7.5YR 4/6	10	C	PL	SiL	
4-16	2.5Y 4/1	70	7.5YR 5/8	15	C	PL	SiCL	
			Gley 1 2.5/N	15	D	M		

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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 Soils³:

☐ 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)

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes☒

No☐

Remarks:

Hydric soil indicators observed.
Soils are compacted and significantly disturbed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 09/13/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-06
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.50008833 Long: -79.18599833 Datum: NAD83
Soil Map Unit Name: MoA: Monongahela silt loam, 0 to 3 percent slopes NWI classification: N/A

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:

Weather: Sunny/Clear, 80°F. Precipitation in Past 24 Hours: 0.00", Total Precipitation in Past 7 Days: 0.84" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-06 is located in a depression within a PEM wetland, inside of a utility ROW.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)
☐ Saturation (A3)	☒ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Moss Trim Lines (B16)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7)		☒ Geomorphic Position (D2)
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
☐ Aquatic Fauna (B13)		☒ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Hydrological indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: STP-06

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
		<u>0</u> = Total Cover		
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>Cornus amomum</u>	<u>5</u>	☒	☐	FACW
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
		<u>5</u> = Total Cover		
50% of total cover: <u>2.5</u>		20% of total cover: <u>1.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Epilobium coloratum</u>	<u>20</u>	☒	☐	FACW
2. <u>Glyceria striata</u>	<u>15</u>	☒	☐	OBL
3. <u>Solidago gigantea</u>	<u>10</u>	☐	☐	FACW
4. <u>Vernonia noveboracensis</u>	<u>10</u>	☐	☐	FACW
5. <u>Apocynum cannabinum</u>	<u>10</u>	☐	☐	FACU
6. <u>Rhynchospora alba</u>	<u>5</u>	☐	☐	OBL
7. <u>Juncus effusus</u>	<u>5</u>	☐	☐	FACW
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
		<u>75</u> = Total Cover		
50% of total cover: <u>37.5</u>		20% of total cover: <u>15.0</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
		<u>0</u> = Total Cover		
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>160</u> (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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

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

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

 Hydrophytic plant community observed.

SOIL

Sampling Point: STP-06

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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) |
| ☐ | Polyvalve 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) |
| ☐ | Umbria Surface (F13) (MLRA 136, 122) |
| ☐ | Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 10/16/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-07
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2-4
Subregion (LRR or MLRA): LRR N Lat: 40.49916481° Long: -79.18318245° Datum: NAD83
Soil Map Unit Name: MoA: Monongahela silt loam, 0 to 3 percent slopes NWI classification: N/A

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:

Weather: Overcast, 48°F. Precipitation in Past 24 Hours: 0.03", Total Precipitation in Past 7 Days: 0.38" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-07 is located in a depression within a PSS wetland, part of a large wetland complex.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)
☐ Saturation (A3)	☒ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☒ Moss Trim Lines (B16)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7)		☒ Geomorphic Position (D2)
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
☐ Aquatic Fauna (B13)		☐ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Hydrological indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: STP-07

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Quercus rubra</i>	10	☒	FACU
2. <i>Salix nigra</i>	10	☒	FACW
3. _____	_____	☐	_____
4. _____	_____	☐	_____
5. _____	_____	☐	_____
6. _____	_____	☐	_____
7. _____	_____	☐	_____
		<u>20</u> = Total Cover	
50% of total cover: <u>10.0</u>		20% of total cover: <u>4.0</u>	

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Cornus racemosa</i>	30	☒	FAC
2. <i>Virburnum dentatum</i>	5	☒	FAC
3. _____	_____	☐	_____
4. _____	_____	☐	_____
5. _____	_____	☐	_____
6. _____	_____	☐	_____
7. _____	_____	☐	_____
8. _____	_____	☐	_____
9. _____	_____	☐	_____
		<u>35</u> = Total Cover	
50% of total cover: <u>17.5</u>		20% of total cover: <u>7.0</u>	

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Lysimachia nummularia</i>	35	☒	FACW
2. <i>Carex pensylvanica</i>	10	☐	NI
3. <i>Salix nigra</i>	5	☐	FACW
4. _____	_____	☐	_____
5. _____	_____	☐	_____
6. _____	_____	☐	_____
7. _____	_____	☐	_____
8. _____	_____	☐	_____
9. _____	_____	☐	_____
10. _____	_____	☐	_____
11. _____	_____	☐	_____
		<u>50</u> = Total Cover	
50% of total cover: <u>25.0</u>		20% of total cover: <u>10.0</u>	

Woody Vine Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	☐	_____
2. _____	_____	☐	_____
3. _____	_____	☐	_____
4. _____	_____	☐	_____
5. _____	_____	☐	_____
		<u>0</u> = Total Cover	
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>	

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: 80.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>235</u> (B)
Prevalence Index = B/A = <u>2.61</u>	

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☒ 3 - Prevalence Index is ≤3.0¹
- ☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

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

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes ☒ No ☐

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

Hydrophytic plant community observed.

SOIL

Sampling Point: STP-07

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

[illegible]

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

²Location: 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) |
| ☐ | Umbria Surface (F13) (MLRA 136, 122) |
| ☐ | Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 10/16/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-08
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.49909500 Long: -79.18241333 Datum: NAD83
Soil Map Unit Name: ChA: Chavies fine sandy loam, 0 to 2 percent slopes NWI classification: N/A

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:

Weather: Overcast, 48°F. Precipitation in Past 24 Hours: 0.03", Total Precipitation in Past 7 Days: 0.38" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-09 is located in an upland area, on the edge of an agricultural field and adjacent to wetland W-02c.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Moss Trim Lines (B16)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7)		☐ Geomorphic Position (D2)
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
☐ Aquatic Fauna (B13)		☐ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

No hydrological indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: STP-08

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	☐	☐	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	☐	☐	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	☐	☐	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0</u> (A/B)
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
<u>0</u> = Total Cover 50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>380</u> (B) Prevalence Index = B/A = <u>3.80</u>
Sapling/Shrub Stratum (Plot size: 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.
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
<u>0</u> = Total Cover 50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>				
Herb Stratum (Plot size: 5')				
1. Zea mays	60	☒	UPL	
2. Microstegium vimenium	20	☒	FAC	
3. Apocynum cannabinum	10	☐	FACU	
4. Glechoma hederacea	10	☐	FACU	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
<u>100</u> = Total Cover 50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>				
Woody Vine Stratum (Plot size: 30')				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
<u>0</u> = Total Cover 50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Upland plant community observed.				Hydrophytic Vegetation Present? Yes ☐ No ☒

SOIL

Sampling Point: STP-08

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

[illegible]

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

²Location: 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) |
| ☐ | Umbria Surface (F13) (MLRA 136, 122) |
| ☐ | Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

No hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 10/16/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-09
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.49909500 Long: -79.18241333 Datum: NAD83
Soil Map Unit Name: ChA: Chavies fine sandy loam, 0 to 2 percent slopes NWI classification: N/A

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:

Weather: Overcast, 48°F. Precipitation in Past 24 Hours: 0.03", Total Precipitation in Past 7 Days: 0.38" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-09 is located in an upland area, on the edge of an agricultural field and adjacent to wetland W-02c.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Moss Trim Lines (B16)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7)		☐ Geomorphic Position (D2)
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
☐ Aquatic Fauna (B13)		☐ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

No hydrological indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: STP-09

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Zea mays</u>	60	☒	☐	UPL
2. <u>Microstegium vimenium</u>	20	☒	☐	FAC
3. <u>Apocynum cannabinum</u>	10	☐	☐	FACU
4. <u>Glechoma hederacea</u>	10	☐	☐	FACU
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
100 = Total Cover				
50% of total cover: <u>50.0</u>		20% of total cover: <u>20.0</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

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

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

 Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>380</u> (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 in height.

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.)

 Upland plant community observed.

SOIL

Sampling Point: STP-09

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Rura Field City/County: Blairsville/Indiana Sampling Date: 10/16/2024
Applicant/Owner: Homer City Generation LP State: PA Sampling Point: STP-10
Investigator(s): Crystal Roemer, Trevor Surgener Section, Township, Range: _____
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.500462° Long: -79.180480° Datum: NAD83
Soil Map Unit Name: Pua: Purdy silt loam, 0 to 2 percent slopes NWI classification: N/A

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:

Weather: Overcast, 48°F. Precipitation in Past 24 Hours: 0.03", Total Precipitation in Past 7 Days: 0.38" (CoCoRaHS Station PA-IN-4: Indiana 2.8 E)
STP-10 is located in an upland area, inside of an agricultural field where a NWI wetland was previously identified.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)	☐ Sparsely Vegetated Concave Surface (B8)
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Drainage Patterns (B10)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)	☐ Moss Trim Lines (B16)
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)	☐ Crayfish Burrows (C8)
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7)		☒ Geomorphic Position (D2)
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
☐ Aquatic Fauna (B13)		☐ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

One secondary hydrological indicator observed, not enough to qualify wetland hydrology.

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: STP-10

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Glycine max</u>	<u>80</u>	☒	☐	UPL
2. <u>Tussilago farfara</u>	_____	☒	☐	FACU
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
6. _____	_____	☐	☐	
7. _____	_____	☐	☐	
8. _____	_____	☐	☐	
9. _____	_____	☐	☐	
10. _____	_____	☐	☐	
11. _____	_____	☐	☐	
80 = Total Cover				
50% of total cover: <u>40.0</u>		20% of total cover: <u>16.0</u>		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. _____	_____	☐	☐	
2. _____	_____	☐	☐	
3. _____	_____	☐	☐	
4. _____	_____	☐	☐	
5. _____	_____	☐	☐	
0 = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>80</u>	x 5 = <u>400</u>
Column Totals: <u>100</u> (A)	<u>480</u> (B)

Prevalence Index = B/A = 4.80

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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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.)

Upland plant community observed.

SOIL

Sampling Point: STP-10

[illegible]

APPENDIX C

PROFESSIONAL QUALIFICATIONS

Crystal Roemer, PWS – Crystal serves as an Environmental Scientist in the Airside office (Moon Township, PA) of Michael Baker International and offers over 10 years of natural resource and environmental site investigation experience. Crystal's experience includes wetland delineations, stream and habitat assessments, botanical surveys, invasive species surveys, mitigation design and monitoring, habitat suitability studies for rare, threatened, and endangered (RTE) species, RTE coordination and clearance, macroinvertebrate studies, electrofishing surveys, mine surface subsidence investigations, NEPA documentation and resource permitting, FEMA floodway revision studies, and environmental inspection.

Crystal has conducted work nationwide and across multiple industries, including oil and gas, wind and nuclear energy, transportation, planning, mining, land development, municipal, and water resources. Crystal has a bachelor's degree in Environmental Science and Biology from Edinboro University of Pennsylvania. Crystal completed the USACE 36-Hour Army Corps of Engineers Wetland Delineation Training Program, has received PEC Safeland training, is 40-hour HAZWOPER certified, and is registered as a Professional Wetland Scientist (PWS) through The Society of Wetland Scientists.

Trevor Surgener – Trevor serves as an Environmental Scientist in the Airside office (Moon Township, PA) of Michael Baker International. Trevor has a wide variety of experience contributing to a diverse skill set, including ecological sampling, limnology, freshwater science, stream ecology, wetland studies, macroinvertebrate studies, microscopy, electrofishing surveys, solar and renewable energies, construction, atmospheric and aquatic instrumentation, and remote monitoring. Trevor has over five years of experience in freshwater science and stream ecology and over eight years of cumulative experience collecting ecological data for various employers.

Trevor has conducted work ranging throughout Northwest Pennsylvania, the Great Lakes, and the Arctic. Trevor has a bachelor's degree in Sustainability and Environmental Sciences with a focus in freshwater biology from Mercyhurst University in Erie, Pennsylvania. Trevor holds a 40-hour HAZWOPER certificate, and a certificate for Wilderness First Aid.