

POWER PLANT ROAD RELOCATION 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.
Homer City, PA 15748*

Prepared by:

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INTERNATIONAL

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INTRODUCTION

Homer City Generation LP is proposing to relocate the existing Power Plant Road in Center and Black Lick Townships, Indiana County, Pennsylvania (**Figure 1**). The project will build a new section of road that will connect an existing portion of Power Plant Road to a private access road on the Homer City redevelopment property, providing an alternative access point to the property. The project will disturb roughly 20 acres of wood lots for the proposed development of a 4,500 linear foot access road with a utility corridor. The start of the project will tie into the existing Power Plant Road and terminate at an existing access road on the Homer City redevelopment property. Surrounding land use consists of successional woodland, previously developed commercial property, and agricultural properties. Vegetation consists of maintained and unmaintained roadside vegetation, forest, floodplain, and emergent wetland vegetation.

A delineation for jurisdictional wetlands and waterways was conducted on June 6, 2024, and September 11, 2024, by biologists from Michael Baker International (MBI) to assess the study area for potentially jurisdictional wetlands and watercourses.

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.

Shane Stauffer, PWS – Michael Baker International, Inc.

SITE CONDITIONS

Delineation Dates: June 6, 2024; September 12, 2024

Temperature: 74°F; 76°F

Weather Conditions: Overcast; Sunny/Clear

Precipitation in Past 24 Hours: 0.38"; 0.00" (CoCoRahs Station PA-IN-4: Indiana 2.8 E)

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

RESULTS

Wetlands

During the desktop review, one NWI wetland (**Figure 2**) and four soils with minor hydric inclusions (**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*
BuB	Buchanan loam, 3 to 8 percent slopes	5
BuC	Buchanan loam, 8 to 15 percent slopes	3
GcC	Gilpin channery silt loam, 8 to 15 percent slopes	0
GcD	Gilpin channery silt loam, 15 to 25 percent slopes	0
HnB	Hazleton channery sandy 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
WhA	Wharton silt loam, 0 to 3 percent slopes	5
WhB	Wharton silt loam, 3 to 8 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, eight 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 Area (acres)	Total Wetland within Study Area (acres)
W-06	PEM	Yes	Closed	0.013	0.013
W-07	PEM	Yes	Open	0.004	0.001
W-09	PEM	Yes	Open	0.023	0.019
W-10	PEM	Yes	Open	0.134	0.109
W-14	PEM	Yes	Closed	0.017	0.017
W-15	PEM	Yes	Open	0.389	0.059
W-16	PEM	No	Open	0.056	0.025
W-17	PEM	No	Open	0.139	0.104
Total				0.775	0.347

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.

Wetland W-06 is a 0.013-acre PEM wetland located in the central quadrant of the study area. Wetland vegetation within wetland W-06 consists of *Impatiens capensis* (orange jewelweed), *Carex vulpinoidea* (fox sedge), and *Lysimachia nummularia* (creeping jenny). Wetland W-06 abuts an ephemeral (EPH) stream S-09; however, this stream does not provide hydrology. Hydrology is received from surface runoff and groundwater. Soils texture is silty clay loam (SiCL), redox concentrations were observed.

Wetland W-07 is a 0.004-acre PEM wetland located in the central quadrant of the study area. Wetland vegetation within wetland W-07 consists of *Impatiens capensis* (orange jewelweed), *Carya laciniosa* (shellbark hickory), and *Symplocarpus foetidus* (skunk cabbage). Wetland W-07 abuts intermittent (INT) stream S-10. Hydrology is received from surface runoff, groundwater, and stream S-10. Soils texture is silty clay loam (SiCL), redox concentrations were observed.

Wetland W-09 is a 0.023-acre PEM wetland located in the central northern quadrant of the study area. Vegetation within wetland W-09 is a mix of trees, grasses, forbs, and woody shrubs. Dominant vegetation consisted of *Acer saccharinum* (silver maple), *Lindera benzoin* (spicebush), *Symplocarpus foetidus* (skunk cabbage). Hydrology is received from stream S-08 (Trib 44075), surface runoff, and groundwater. Soil texture was silty clay loam (SiCL), redox concentrations were observed.

Wetland W-10 is a 0.134-acre PEM wetland located in the central northern quadrant of the study area. Vegetation within wetland W-10 is a mix of herbaceous grasses and forbs. The dominant vegetation consisted of *Phalaris arundinacea* (reed canary grass), although several other wetland

indicator species were present. Hydrology is received from stream S-08 (Trib 44075), surface runoff, and groundwater. Soil texture was silty clay loam (SiCL), redox concentrations were observed.

Wetland W-14 is a 0.017-acre PEM wetland located in a depression in the northwest quadrant of the study area. Of the 0.017 acres, .005 acres are within the study area. Vegetation within wetland W-14 is a mix of grasses and forbs. Dominant plant species include *Leersia oryzoides* (rice cutgrass), *Glyceria grandis* (American managrass), and *Carex vulpiunoidea* (fox sedge). Hydrology is received from stream S-14, surface runoff, and groundwater. Soils were saturated to surface and the texture is silty clay loam (SiCL) and silty clay (SiC), redox concentrations were observed.

Wetland W-15 is a 0.389-acre PEM wetland located on a terrace, in the northeast quadrant of the study area. Of the 0.389 acres, .025 acres are within the study area. Vegetation within wetland W-15 is a mix of grasses, forbs, trees, and woody shrubs. Dominant species include *Acer saccharinum* (silver maple), *Lindera benzoin* (spicebush), *Leersia oryzoides* (rice cutgrass), and *Juncus effusus* (common rush). Soils were saturated to surface, and texture consists of silty clay loam (SiCL) and silty clay (SiC), redox concentrations were observed.

Wetland W-16 is a 0.056-acre PEM resource located on a terrace in the northeast quadrant of the study area. Of the 0.056 acres, .024 acres are within the study area. Vegetation within wetland W-16 is a mix of trees, grasses, forbs, and woody shrubs. Dominant species include *Acer saccharinum* (silver maple), *Lindera benzoin* (spicebush), *Leersia oryzoides* (rice cutgrass), and *Juncus effusus* (common rush). Hydrology is received from surface runoff and groundwater. Soils were saturated to surface, texture consists of silty clay loam (SiCL) and silty clay (SiC), redox concentrations were observed.

Wetland W-17 is a 0.139-acre PEM resource located on a terrace, in the northwest quadrant of the study area. Of the 0.139 acres, .049 acres are within the study area. Vegetation within wetland W-17 is a mix of trees, grasses, forbs, and woody shrubs. Dominant species include *Acer saccharinum* (silver maple), *Lindera benzoin* (spicebush), *Leersia oryzoides* (rice cutgrass), and *Juncus effusus* (common rush). Hydrology is received from surface runoff and groundwater. Soils are saturated to surface and exhibited redox features. Soil texture consist of silty clay loam (SiCL) and silty clay (SiC).

Watercourses

During the on-site survey, three ephemeral (EPH), four intermittent (INT), and two perennial (PER), stream reaches were identified within the study area (**Figure 4** and **Appendix A**). One PER watercourse was identified from the National Hydrography Dataset (NHD) during the desktop review; Tributary (Trib) 44075 to Two Lick Creek.

The study area is within the Two Lick Creek-Blacklick 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 to Two Lick and all associated unnamed tributaries (UNTs) have a designated use of cold water fishes (CWF). The Pennsylvania Fish and Boat Commission (PFBC) does not designate these streams 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 (feet)
S-08 (Trib 44075 to Two Lick Creek)	High	PER	4.0"	11.0"	60.0"	66.0"	7.0'
S-09	High	EPH	dry	6.0"	dry	N/A	3.5'
S-10	High	INT	1.0"	7.5"	6.0"	12.0"	3.0'
S-14	High	EPH	3.0"	7.0"	24.0"	31.0"	4.0'
S-14	High	INT/PER	1.0"	7.0"	24.0"	24.0"	4.0'
S-15	High	EPH	dry	6.0"	dry	N/A	3.5'
S-16	High	INT	0.5"	7.0"	12.0"	16.5"	3.5'
S-17	High	INT	1.0"	8.0"	12.0"	17.0"	3.0'

S-08 (Trib 44075 to Two Lick Creek) is a high gradient PER stream located near the center of the study area. Stream S-08 receives hydrology from surface runoff, groundwater, and streams S-09 and S-14. It originates beyond the study area and flows generally south, adjacent to the study area, until its confluence with Two Lick Creek. S-08 has a designated use of CWF.

S-09 is a high-gradient EPH stream originating in south-central portion of the study area. Stream S-09 receives hydrology from surface runoff, groundwater, and stream S-10. Stream S-09 generally flows west until its confluence with S-08. Stream S-09 becomes INT beyond the study area and has a designated use of CWF.

S-10 is a high gradient INT stream originating in the south-central portion of the study area. Stream S-10 receives hydrology from wetland W-07, surface runoff, and groundwater and flows generally southwest until its confluence with S-09. Stream S-10 has a designated use of CWF.

S-14 is a high-gradient stream exhibiting EPH, INT, and PER flow regimes. Stream S-14 originates near the northwestern extent of the study area. The EPH portion of S-14 receives hydrology from surface runoff alone. It continues for approximately 15 feet before gaining groundwater and hydrology from S-17. It remains INT until its confluence with S-16. Downstream of this confluence, S-14 becomes PER and conveys hydrology through wetland W-14. S-14 generally flows southwest until its confluence with S-08 and has a designated use of CWF.

S-15 is a high-gradient EPH stream originating northeast of the study area, near the clarifiers. Stream S-15 receives hydrology from surface runoff and may receive occasional drainage from

wetland W-15. S-15 generally flows west until its confluence with S-14. S-15 has a designated use of CWF.

S-16 is a high-gradient INT stream originating in the central northern quadrant of the study area. S-16 receives hydrology from surface runoff, S-15, and wetland W-15. S-16 generally flows west until its confluence with S-17. S-16 has a designated use of CWF.

S-17 is a high-gradient INT stream originating west of the northern quadrant of the study area. S-17 receives hydrology from surface runoff and wetland W-17. S-17 generally flows south until its confluence with S-16. S-17 has a designated use of CWF.

CONCLUSION

Three EPH, four INT, and two PER stream reaches were identified within the study area. All watercourses have a designated use of CWF per Pennsylvania Code, Chapter 93 Water Quality Standards. Under the current definition of Waters of the United States (WOTUS).

Six PEM wetlands were delineated within the study area. Four PEM wetlands extended beyond the study area. Of the 0.637 total acres delineated, 0.139 acres are within the study area. All wetlands are jurisdictional waters of the State; however, wetland W-16 may not be USACE-jurisdictional under the current definition of WOTUS. If a formal determination is desired to determine whether this resource is a USACE-Jurisdictional WOTUS, a Jurisdictional Determination from USACE would need to be requested. 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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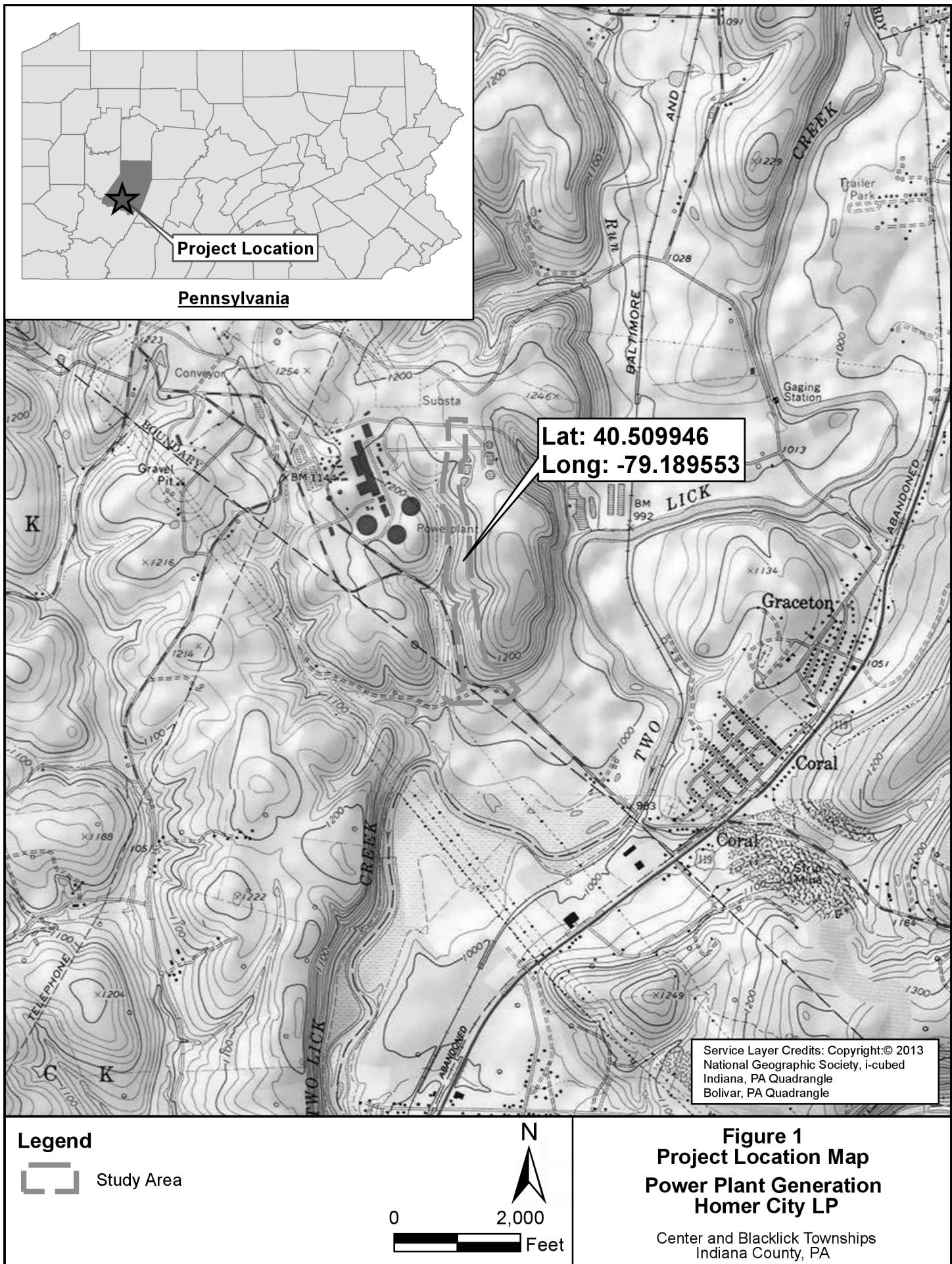
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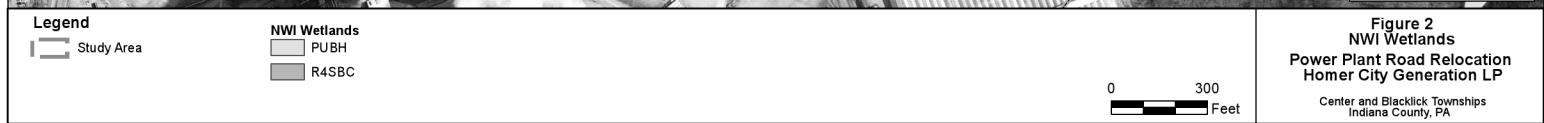
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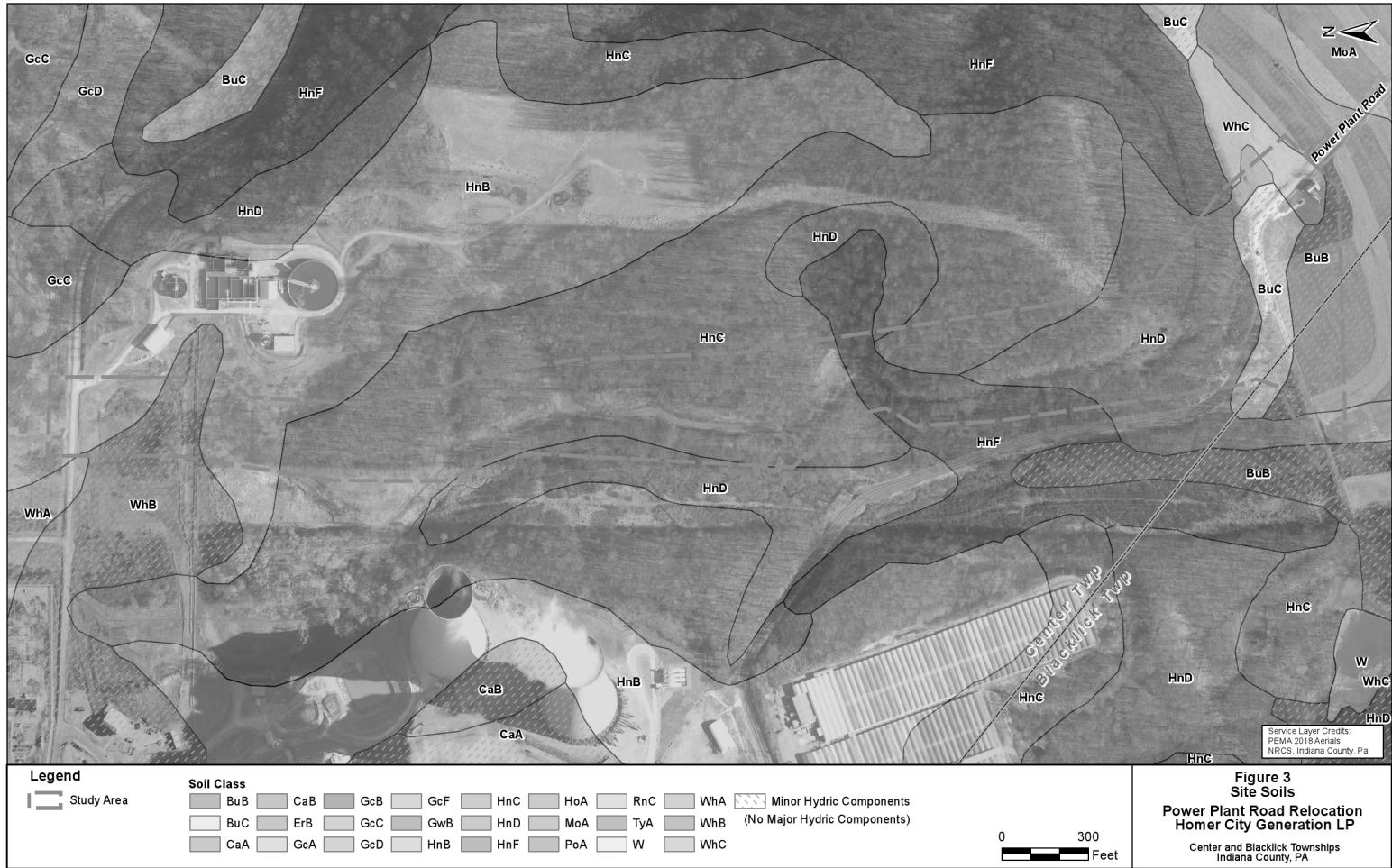
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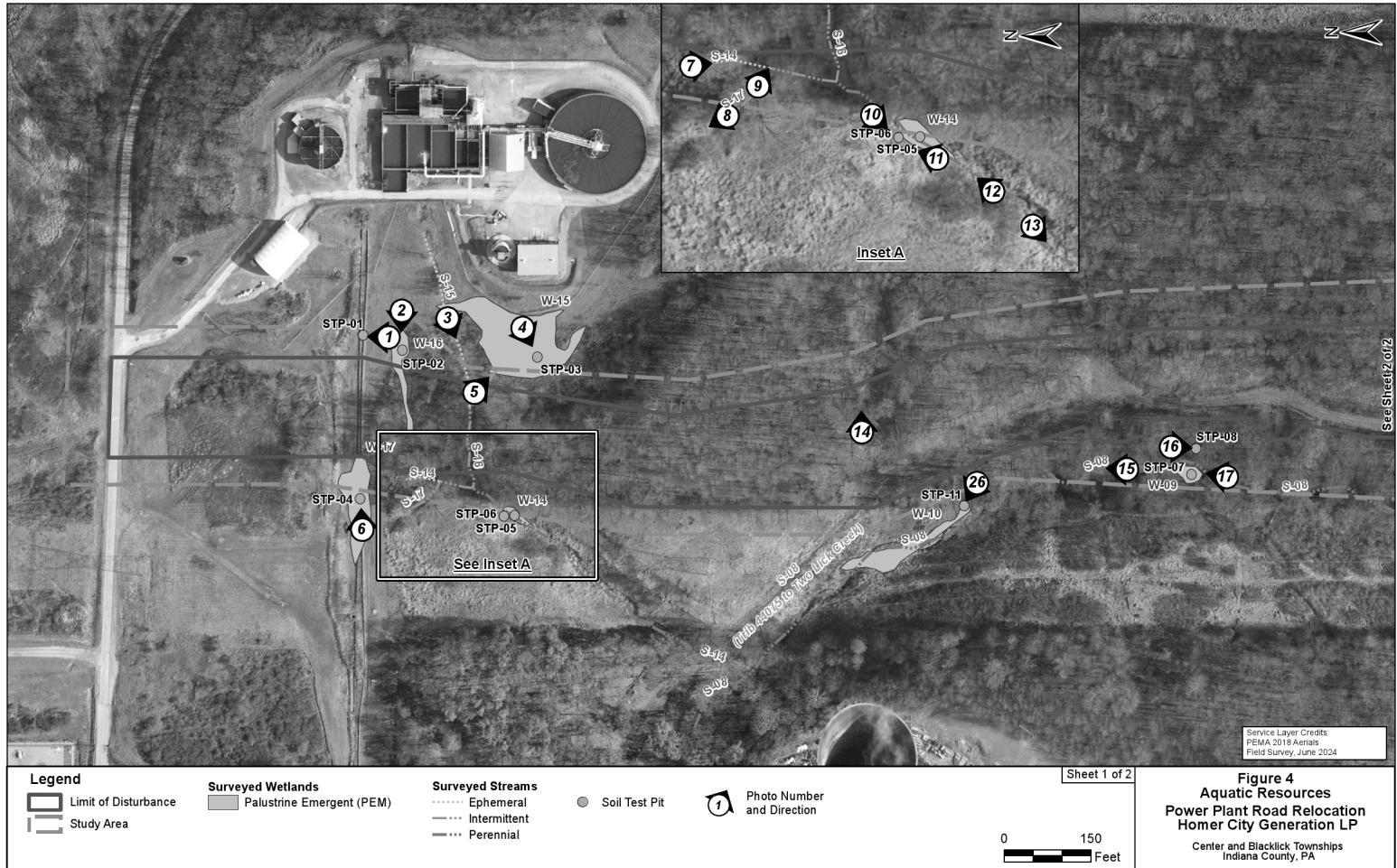


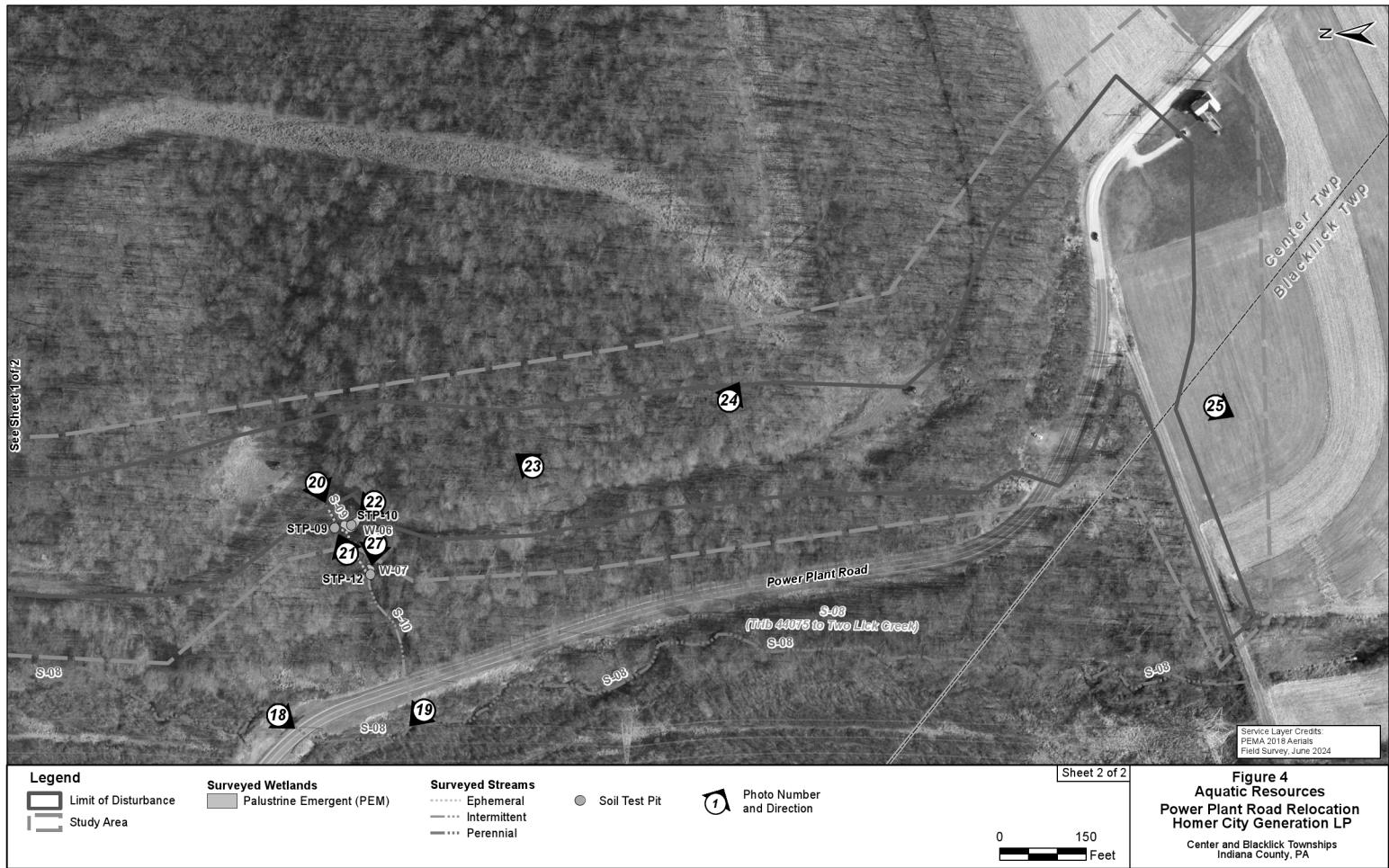


Service Layer Credits:
PEMA 2018 Aerials
National Wetlands Inventory, Pennsylvania









APPENDIX A

SITE PHOTOGRAPHS

POWER PLANT ROAD RELOCATION PROJECT
BLACK LICK AND CENTER TOWNSHIPS, INDIANA COUNTY, PENNSYLVANIA
APPENDIX A: SITE PHOTOGRAPHS
OCTOBER 2024
REVISED: JULY 2025



Photograph 1 – Overview of upland point STP-01 northwest of wetland 16. STP-01 was taken in upland habitat representative of that surrounding wetlands W-15, W-16, and W-17 (facing north).



Photograph 2 – Overview of STP-02 within PEM wetland W-16
(facing west).



Photograph 3 – Overview of EPH stream S-15 west of wetland W-15
(facing downstream).



Photograph 4 – Overview of STP-03 within PEM wetland W-15
(facing southwest).

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Photograph 5 – View of INT stream S-16 as it channelizes at the southern extent of wetland W-15 (facing upstream).



Photograph 6 – Overview of STP-04 within PEM wetland W-17 (facing east).



Photograph 7 – Overview of headwaters of EPH section of stream S-14
(facing downstream).



Photograph 8 – Overview of INT stream S-17
(facing upstream).

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Photograph 9 – Overview of INT stream S-17 looking towards its confluence with stream S-14 (facing downstream).



Photograph 10 – Overview of upland sample point STP-06 north of wetland W-14 (facing southwest).



Photograph 11 – Overview of STP-05 within PEM wetland W-14
(facing northeast).



Photograph 12 – Overview of PER stream S-14
(facing upstream).

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Photograph 13 – Overview of PER stream S-14
(facing downstream).



Photograph 14 – Overview of successional forest in the eastern-central study area
(facing east).

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Photograph 15 – Overview of PER stream S-08, north of wetland W-09
(facing upstream).



Photograph 16 – Overview of upland sample point STP-08 displaying typical forest composition
(facing south).



Photograph 17 – Overview of STP-07 within PEM wetland W-09
(facing north).



Photograph 18 – Overview of PER stream S-08 prior to being culverted beneath Power Plant Road
(facing downstream).



Photograph 19 – Overview of the confluence of PER stream S-08 and S-09 adjacent to Power Plant Road (facing upstream).



Photograph 20 – Overview of the headwaters of stream S-09 (facing downstream).



Photograph 21 – Overview of upland sample point STP-09 northeast of wetland W-06
(facing northeast).



Photograph 22 – Overview of STP-10 within PEM wetland W-06.
(facing southeast).



Photograph 23 – Overview of successional forest in the eastern-central study area
(facing northeast).



Photograph 24 – Overview of successional forest in the eastern-central study area
(facing southeast).



Photograph 25 – Overview of agricultural field in the eastern study area extent
(facing southwest).



Photograph 26 – Overview of STP-11 within PEM wetland W-10
(facing northwest).



Photograph 27 – Overview of STP-12 within PEM wetland W-07 near the confluence of stream S-09 and S-10 (facing southwest and downstream).

APPENDIX B

DATA FORMS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>	
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-01</u>	
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:		
Landform (hillslope, terrace, etc.): <u>flat</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>2-4</u>	
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514731°</u>	Long: <u>-79.189210°</u>	Datum: <u>NAD83</u>
Soil Map Unit Name: <u>WhB: Wharton silt loam, 3 to 8 percent slopes</u>		NWI classification: <u>N/A</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/> (If needed, explain any answers in Remarks.)	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			

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

Hydrophytic Vegetation Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Wetland Hydrology Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: Weather: Sunny/Clear, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) Upland meadow is maintained and consistent around the landscapes of wetlands W-15, W-16, and W-17. Their upland conditions can be summarized by a singular dataform. STP-01 is located on the edge of maintained pipeline infrastructure.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturated Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Iron Deposits (B5)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Water-Stained Leaves (B9)			
<input type="checkbox"/> Aquatic Fauna (B13)			
Field Observations:			
Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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-01

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
7.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	
Sapling/Shrub Stratum (Plot size: 15')				
1.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
7.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	
Herb Stratum (Plot size: 5')				
1. <i>Trifolium pratense</i>	25	<input checked="" type="checkbox"/>	FACU	
2. <i>Phleum pratense</i>	25	<input checked="" type="checkbox"/>	FACU	
3. <i>Asclepias syriaca</i>	20	<input checked="" type="checkbox"/>	FACU	
4. <i>Verbesina alternifolia</i>	10	<input type="checkbox"/>	FAC	
5. <i>Trifolium repens</i>	10	<input type="checkbox"/>	FACU	
6. <i>Cirsium vulgare</i>	5	<input type="checkbox"/>	FACU	
7. <i>Galium aparine</i>	5	<input type="checkbox"/>	FACU	
8.		<input type="checkbox"/>		
9.		<input type="checkbox"/>		
10.		<input type="checkbox"/>		
11.		<input type="checkbox"/>		
		100	= Total Cover	
		50% of total cover: 50.0	20% of total cover: 20.0	
Woody Vine Stratum (Plot size: 30')				
1.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.			<input type="checkbox"/>	<input checked="" type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is $\leq 3.0^1$
- 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

50% of total cover: 0.0 20% of total cover: 0.0

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

Upland plant community observed,

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

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: _____

Hydric Soil Present? Yes No

Remarks:

No hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-02</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Terrace</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>10-14</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514663°</u>	Long: <u>-79.189277°</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-02 is located on a terrace within PEM wetland W-16.		

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0.5</u>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
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: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <i>Acer saccharinum</i>		15	<input checked="" type="checkbox"/>	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)		
2.			<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: 5 (B)		
3.			<input type="checkbox"/>		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)		
4.			<input type="checkbox"/>				
5.			<input type="checkbox"/>				
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
		15	= Total Cover				
50% of total cover: 7.5		20% of total cover: 3.0					
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1. <i>Lindera benzoin</i>		5	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:	
2.			<input type="checkbox"/>		OBL species 55	x 1 = 55	
3.			<input type="checkbox"/>		FACW species 40	x 2 = 80	
4.			<input type="checkbox"/>		FAC species 5	x 3 = 15	
5.			<input type="checkbox"/>		FACU species 0	x 4 = 0	
6.			<input type="checkbox"/>		UPL species 0	x 5 = 0	
7.			<input type="checkbox"/>		Column Totals: 100 (A)	150 (B)	
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
		5	= Total Cover				
50% of total cover: 2.5		20% of total cover: 1.0				Prevalence Index = B/A = 1.50	
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:		
1. <i>Leersia oryzoides</i>		30	<input checked="" type="checkbox"/>	OBL	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation		
2. <i>Carex vulpinoidea</i>		25	<input checked="" type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
3. <i>Carex frankii</i>		25	<input checked="" type="checkbox"/>	OBL	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹		
4.			<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.			<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
10.			<input type="checkbox"/>				
11.			<input type="checkbox"/>				
		80	= Total Cover				
50% of total cover: 40.0		20% of total cover: 16.0					
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.			<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2.			<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
3.			<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4.			<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.		
5.			<input type="checkbox"/>				
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0					
Remarks: (Include photo numbers here or on a separate sheet.)							
Hydrophytic plant community observed.							
Hydrophytic Vegetation Present?				Yes <input checked="" type="radio"/> No <input type="radio"/>			

SOIL

Sampling Point: STP-02

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

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.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Homer City Generation Station</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-03</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Terrace</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>10-20</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514663°</u>	Long: <u>-79.189277°</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-03 is located on a terrace within PEM wetland W-15.		

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0.5</u>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
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: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <i>Acer saccharinum</i>		15	<input checked="" type="checkbox"/>	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)		
2.			<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: 5 (B)		
3.			<input type="checkbox"/>		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)		
4.			<input type="checkbox"/>				
5.			<input type="checkbox"/>				
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
		15	= Total Cover				
50% of total cover: 7.5		20% of total cover: 3.0					
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1. <i>Lindera benzoin</i>		5	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:	
2.			<input type="checkbox"/>		OBL species 55	x 1 = 55	
3.			<input type="checkbox"/>		FACW species 40	x 2 = 80	
4.			<input type="checkbox"/>		FAC species 5	x 3 = 15	
5.			<input type="checkbox"/>		FACU species 0	x 4 = 0	
6.			<input type="checkbox"/>		UPL species 0	x 5 = 0	
7.			<input type="checkbox"/>		Column Totals: 100 (A)	150 (B)	
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
		5	= Total Cover				
50% of total cover: 2.5		20% of total cover: 1.0				Prevalence Index = B/A = 1.50	
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:		
1. <i>Leersia oryzoides</i>		30	<input checked="" type="checkbox"/>	OBL	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation		
2. <i>Carex vulpinoidea</i>		25	<input checked="" type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
3. <i>Carex frankii</i>		25	<input checked="" type="checkbox"/>	OBL	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹		
4.			<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.			<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
10.			<input type="checkbox"/>				
11.			<input type="checkbox"/>				
		80	= Total Cover				
50% of total cover: 40.0		20% of total cover: 16.0					
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.			<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2.			<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
3.			<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4.			<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.		
5.			<input type="checkbox"/>				
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0					
Remarks: (Include photo numbers here or on a separate sheet.)							
Hydrophytic plant community observed.							
Hydrophytic Vegetation Present?				Yes <input checked="" type="radio"/> No <input type="radio"/>			

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

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: _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-04</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Terrace</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>10-20</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514663°</u>	Long: <u>-79.189277°</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E). STP-04 is located on a terrace within PEM wetland W-17.		

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0.5</u>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
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-04

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <i>Acer saccharinum</i>		15	<input checked="" type="checkbox"/>	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)		
2.			<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: 5 (B)		
3.			<input type="checkbox"/>		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)		
4.			<input type="checkbox"/>				
5.			<input type="checkbox"/>				
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
		15	= Total Cover				
50% of total cover: 7.5		20% of total cover: 3.0					
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1. <i>Lindera benzoin</i>		5	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:	
2.			<input type="checkbox"/>		OBL species 55	x 1 = 55	
3.			<input type="checkbox"/>		FACW species 40	x 2 = 80	
4.			<input type="checkbox"/>		FAC species 5	x 3 = 15	
5.			<input type="checkbox"/>		FACU species 0	x 4 = 0	
6.			<input type="checkbox"/>		UPL species 0	x 5 = 0	
7.			<input type="checkbox"/>		Column Totals: 100 (A)	150 (B)	
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
		5	= Total Cover				
50% of total cover: 2.5		20% of total cover: 1.0				Prevalence Index = B/A = 1.50	
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:		
1. <i>Leersia oryzoides</i>		30	<input checked="" type="checkbox"/>	OBL	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation		
2. <i>Carex vulpinoidea</i>		25	<input checked="" type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
3. <i>Carex frankii</i>		25	<input checked="" type="checkbox"/>	OBL	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹		
4.			<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.			<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
10.			<input type="checkbox"/>				
11.			<input type="checkbox"/>				
		80	= Total Cover				
50% of total cover: 40.0		20% of total cover: 16.0					
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.			<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2.			<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
3.			<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4.			<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.		
5.			<input type="checkbox"/>				
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0					
Remarks: (Include photo numbers here or on a separate sheet.)							
Hydrophytic plant community observed.							
Hydrophytic Vegetation Present?				Yes <input checked="" type="radio"/>		No <input type="radio"/>	

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

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Hydro 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: _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-05</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>depression</u>	Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>10-20</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514096°</u>	Long: <u>-79.190324°</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-05 is located in a depression within PEM wetland W-14.		

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0.5</u>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
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-05

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	
Sapling/Shrub Stratum (Plot size: 15')				
1.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	
Herb Stratum (Plot size: 5')				
1. <i>Leersia oryzoides</i>	50	<input checked="" type="checkbox"/>	OBL	
2. <i>Glyceria grandis</i>	25	<input checked="" type="checkbox"/>	OBL	
3. <i>Carex vulpinoidea</i>	20	<input checked="" type="checkbox"/>	OBL	
4. <i>Juncus effusus</i>	5	<input type="checkbox"/>	FACW	
5.		<input type="checkbox"/>		
6.		<input type="checkbox"/>		
7.		<input type="checkbox"/>		
8.		<input type="checkbox"/>		
9.		<input type="checkbox"/>		
10.		<input type="checkbox"/>		
11.		<input type="checkbox"/>		
		100	= Total Cover	
		50% of total cover: 50.0	20% of total cover: 20.0	
Woody Vine Stratum (Plot size: 30')				
1.			<input type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	

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 95	x 1 = 95
FACW species 5	x 2 = 10
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 100 (A)	105 (B)

Prevalence Index = B/A = 1.05

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is $\leq 3.0^1$
- 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.

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

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.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-06</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>hillslope</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>10-15</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514147°</u>	Long: <u>-79.190327°</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>	NWI classification: <u>N/A</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input type="radio"/> No <input checked="" type="radio"/>		
Are Vegetation <input checked="" type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Wetland Hydrology Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-06 is located on a hillslope in an upland area northwest of wetland W-14.		

HYDROLOGY

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

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-06

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.			<input type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>
6.			<input type="checkbox"/>	<input type="checkbox"/>
7.			<input type="checkbox"/>	<input type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	
Sapling/Shrub Stratum (Plot size: 15')				
1.			<input type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>
6.			<input type="checkbox"/>	<input type="checkbox"/>
7.			<input type="checkbox"/>	<input type="checkbox"/>
8.			<input type="checkbox"/>	<input type="checkbox"/>
9.			<input type="checkbox"/>	<input type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	
Herb Stratum (Plot size: 5')		100	<input checked="" type="checkbox"/>	FACU
1.	Reynoutria japonica	100	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>
6.			<input type="checkbox"/>	<input type="checkbox"/>
7.			<input type="checkbox"/>	<input type="checkbox"/>
8.			<input type="checkbox"/>	<input type="checkbox"/>
9.			<input type="checkbox"/>	<input type="checkbox"/>
10.			<input type="checkbox"/>	<input type="checkbox"/>
11.			<input type="checkbox"/>	<input type="checkbox"/>
		100	= Total Cover	
		50% of total cover: 50.0	20% of total cover: 20.0	
Woody Vine Stratum (Plot size: 30')				
1.			<input type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>
		0	= Total Cover	
		50% of total cover: 0.0	20% of total cover: 0.0	

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 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 100	x 4 = 400
UPL species 0	x 5 = 0
Column Totals: 100	(A) 400 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is $\leq 3.0^1$
- 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.

Dense stand of known invasive *Reynoutria japonica*.

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

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:

No hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-07</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>floodplain</u>	Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>0-5</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.510887°</u>	Long: <u>-79.189998°</u>
Soil Map Unit Name: <u>Hnd: Hazleton channery sandy loam, 15 to 25 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input checked="" type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-07 is located in the floodplain within a stream valley within PEM wetland W-09.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input checked="" type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0.5</u>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
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: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <i>Acer saccharinum</i>		20	<input checked="" type="checkbox"/>	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)		
2.			<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: 3 (B)		
3.			<input type="checkbox"/>		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)		
4.			<input type="checkbox"/>				
5.			<input type="checkbox"/>				
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
		20	= Total Cover				
50% of total cover: 10.0		20% of total cover: 4.0					
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1. <i>Lindera benzoin</i>	15	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:		
2.		<input type="checkbox"/>		OBL species 50	x 1 = 50		
3.		<input type="checkbox"/>		FACW species 25	x 2 = 50		
4.		<input type="checkbox"/>		FAC species 15	x 3 = 45		
5.		<input type="checkbox"/>		FACU species 10	x 4 = 40		
6.		<input type="checkbox"/>		UPL species 0	x 5 = 0		
7.		<input type="checkbox"/>		Column Totals: 100	(A) 185 (B)		
8.		<input type="checkbox"/>					
9.		<input type="checkbox"/>					
		15	= Total Cover				
50% of total cover: 7.5		20% of total cover: 3.0				Prevalence Index = B/A = 1.85	
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:		
1. <i>Symplocarpus foetidus</i>	50	<input checked="" type="checkbox"/>	OBL	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation			
2. <i>Reynoutria japonica</i>	10	<input type="checkbox"/>	FACU	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%			
3. <i>Impatiens capensis</i>	5	<input type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹			
4.		<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5.		<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
6.		<input type="checkbox"/>					
7.		<input type="checkbox"/>					
8.		<input type="checkbox"/>					
9.		<input type="checkbox"/>					
10.		<input type="checkbox"/>					
11.		<input type="checkbox"/>					
		65	= Total Cover				
50% of total cover: 32.5		20% of total cover: 13.0					
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.		<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
2.		<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
3.		<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
4.		<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.			
5.		<input type="checkbox"/>					
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0					
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>							

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

Hydrophytic plant community observed.

Known invasive *Reynoutria japonica* observed.

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

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.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-08</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>hillslope</u>	Local relief (concave, convex, none): <u>convex</u>	Slope (%): <u>0-10</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.510867°</u>	Long: <u>-79.189836°</u>
Soil Map Unit Name: <u>HnD: Hazleton channery sandy loam, 15 to 25 percent slopes</u>	NWI classification: <u>N/A</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-08 is located on a hillslope in an upland area east of wetland W-09.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturated Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Iron Deposits (B5)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Water-Stained Leaves (B9)			
<input type="checkbox"/> Aquatic Fauna (B13)			
Field Observations:			
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): _____	
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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. <i>Liriodendron tulipifera</i>		20	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
2. <i>Acer saccharum</i>		20	<input checked="" type="checkbox"/>	FACU	Total Number of Dominant Species Across All Strata: 5 (B)		
3.			<input type="checkbox"/>		Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0 (A/B)		
4.			<input type="checkbox"/>				
5.			<input type="checkbox"/>				
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
		40	= Total Cover				
50% of total cover: 20.0		20% of total cover: 8.0					
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1. <i>Lindera benzoin</i>	25	<input checked="" type="checkbox"/>	FAC	Total % Cover of:		Multiply by:	
2. <i>Rosa multiflora</i>	25	<input checked="" type="checkbox"/>	FACU	OBL species 0	x 1 = 0		
3.		<input type="checkbox"/>		FACW species 0	x 2 = 0		
4.		<input type="checkbox"/>		FAC species 35	x 3 = 105		
5.		<input type="checkbox"/>		FACU species 65	x 4 = 260		
6.		<input type="checkbox"/>		UPL species 0	x 5 = 0		
7.		<input type="checkbox"/>		Column Totals: 100	(A)	365 (B)	
8.		<input type="checkbox"/>					
9.		<input type="checkbox"/>					
		50	= Total Cover				
50% of total cover: 25.0		20% of total cover: 10.0				Prevalence Index = B/A = 3.65	
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:		
1. <i>Verbesina alternifolia</i>	10	<input checked="" type="checkbox"/>	FAC	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation			
2.		<input type="checkbox"/>		<input type="checkbox"/> 2 - Dominance Test is >50%			
3.		<input type="checkbox"/>		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹			
4.		<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5.		<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
6.		<input type="checkbox"/>					
7.		<input type="checkbox"/>					
8.		<input type="checkbox"/>					
9.		<input type="checkbox"/>					
10.		<input type="checkbox"/>					
11.		<input type="checkbox"/>					
		10	= Total Cover				
50% of total cover: 5.0		20% of total cover: 2.0				1 ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.		<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
2.		<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
3.		<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
4.		<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.			
5.		<input type="checkbox"/>					
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: (Include photo numbers here or on a separate sheet.)							
Upland plant community observed.							

SOIL

Sampling Point: STP-08

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

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:

No hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-09</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>hillslope</u>	Local relief (concave, convex, none): <u>convex</u>	Slope (%): <u>20-35</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.508363°</u>	Long: <u>-79.189304°</u>
Soil Map Unit Name: <u>Hnf: Hazleton channery sandy loam, 25 to 70 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Wetland Hydrology Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-09 is located on a hillslope adjacent to PEM wetland W-06.		

HYDROLOGY

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

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: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <i>Liriodendron tulipifera</i>		20	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)		
2. <i>Quercus alba</i>		20	<input checked="" type="checkbox"/>	FACU	Total Number of Dominant Species Across All Strata: 6 (B)		
3. <i>Acer saccharum</i>		20	<input checked="" type="checkbox"/>	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7 (A/B)		
4. <i>Carya ovata</i>		10	<input type="checkbox"/>	FACU			
5. <i>Acer saccharinum</i>		10	<input type="checkbox"/>	FACW			
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
		80	= Total Cover				
		50% of total cover: 40.0	20% of total cover: 16.0				
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1. <i>Lindera benzoin</i>	5		<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:	
2. <i>Rosa multiflora</i>	5		<input checked="" type="checkbox"/>	FACU	OBL species 0	x 1 = 0	
3.			<input type="checkbox"/>		FACW species 15	x 2 = 30	
4.			<input type="checkbox"/>		FAC species 5	x 3 = 15	
5.			<input type="checkbox"/>		FACU species 135	x 4 = 540	
6.			<input type="checkbox"/>		UPL species 0	x 5 = 0	
7.			<input type="checkbox"/>		Column Totals: 155 (A)	585 (B)	
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
		10	= Total Cover				
		50% of total cover: 5.0	20% of total cover: 2.0				
Herb Stratum (Plot size: 5')					Prevalence Index = B/A = 3.77		
1. <i>Rosa multiflora</i>	45		<input checked="" type="checkbox"/>	FACU	Hydrophytic Vegetation Indicators:		
2. <i>Polystichum acrostichoides</i>	10		<input type="checkbox"/>	FACU	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation		
3. <i>Impatiens capensis</i>	5		<input type="checkbox"/>	FACW	<input type="checkbox"/> 2 - Dominance Test is >50%		
4. <i>Podophyllum peltatum</i>	5		<input type="checkbox"/>	FACU	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹		
5.			<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
6.			<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
7.			<input type="checkbox"/>				
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
10.			<input type="checkbox"/>				
11.			<input type="checkbox"/>				
		65	= Total Cover				
		50% of total cover: 32.5	20% of total cover: 13.0				
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.			<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2.			<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
3.			<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4.			<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.		
5.			<input type="checkbox"/>				
		0	= Total Cover				
		50% of total cover: 0.0	20% of total cover: 0.0				
Remarks: (Include photo numbers here or on a separate sheet.)							
Upland plant community observed. Invasive species present.							
Hydrophytic Vegetation Present?						Yes <input type="radio"/>	No <input checked="" type="radio"/>

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

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:

No hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-10</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>hillslope</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>15-20</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.508283°</u>	Long: <u>-79.189282°</u>
Soil Map Unit Name: <u>HnF: Hazleton channery sandy loam, 25 to 70 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-10 is located on a hillslope within PEM wetland W-06.		

HYDROLOGY

Wetland Hydrology Indicators:

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

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

<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0.25</u>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>

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-10

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <i>Liriodendron tulipifera</i>		10	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
2. <i>Quercus alba</i>		5	<input type="checkbox"/>	FACU	Total Number of Dominant Species Across All Strata: 3 (B)		
3. <i>Carya ovata</i>		5	<input type="checkbox"/>	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)		
4.							
5.							
6.							
7.							
		20	= Total Cover				
50% of total cover: 10.0		20% of total cover: 4.0					
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:		
1.			<input type="checkbox"/>		Total % Cover of:	Multiply by:	
2.			<input type="checkbox"/>		OBL species 20	x 1 = 20	
3.			<input type="checkbox"/>		FACW species 60	x 2 = 120	
4.			<input type="checkbox"/>		FAC species 0	x 3 = 0	
5.			<input type="checkbox"/>		FACU species 20	x 4 = 80	
6.			<input type="checkbox"/>		UPL species 0	x 5 = 0	
7.			<input type="checkbox"/>		Column Totals: 100	(A) 220 (B)	
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>		Prevalence Index = B/A = 2.20		
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0					
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:		
1. <i>Impatiens capensis</i>		50	<input checked="" type="checkbox"/>	FACW	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation		
2. <i>Carex vulpinoidea</i>		20	<input checked="" type="checkbox"/>	OBL	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
3. <i>Lysimachia nummularia</i>		10	<input type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹		
4.			<input type="checkbox"/>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.			<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
6.			<input type="checkbox"/>				
7.			<input type="checkbox"/>				
8.			<input type="checkbox"/>				
9.			<input type="checkbox"/>				
10.			<input type="checkbox"/>				
11.			<input type="checkbox"/>				
		80	= Total Cover				
50% of total cover: 40.0		20% of total cover: 16.0					
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:		
1.			<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2.			<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
3.			<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4.			<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.		
5.			<input type="checkbox"/>				
		0	= Total Cover				
50% of total cover: 0.0		20% of total cover: 0.0					
Remarks: (Include photo numbers here or on a separate sheet.)							
Hydrophytic vegetation indicators observed							
<p>Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/></p>							

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

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: _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: <u>Power Plant Road Relocation Project</u>	City/County: <u>Blairsville/Indiana</u>	Sampling Date: <u>06.06.24</u>
Applicant/Owner: <u>Homer City Generation LP</u>	State: <u>PA</u>	Sampling Point: <u>STP-11</u>
Investigator(s): <u>S.Stauffer, PWS</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>depression</u>	Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>4-6</u>
Subregion (LRR or MLRA): <u>LRR N</u>	Lat: <u>40.514096°</u>	Long: <u>-79.190324°</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>		Datum: <u>NAD83</u>
Soil Map Unit Name: <u>HnB: Hazleton channery sandy loam, 3 to 8 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E) STP-11 is located in a depression within PEM wetland W-10.		

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
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-11

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:				
1.	2.	3.	4.	5.	6.	7.	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
							Total Number of Dominant Species Across All Strata: 2 (B)		
							Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)		
							Prevalence Index worksheet:		
							Total % Cover of:	Multiply by:	
							OBL species 55	x 1 = 55	
							FACW species 45	x 2 = 90	
							FAC species 0	x 3 = 0	
							FACU species 5	x 4 = 20	
							UPL species 0	x 5 = 0	
							Column Totals: 105 (A)	165 (B)	
							Prevalence Index = B/A = 1.57		
							Hydrophytic Vegetation Indicators:		
<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)									
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.									
Herb Stratum (Plot size: 5')							Definitions of Four Vegetation Strata:		
1. <i>Leersia oryzoides</i>	50	<input checked="" type="checkbox"/>	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.					
2. <i>Onoclea sensibilis</i>	25	<input checked="" type="checkbox"/>	FACW	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.					
3. <i>Solidago gigantea</i>	15	<input type="checkbox"/>	FACW	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.					
4. <i>Reynoutria japonica</i>	5	<input type="checkbox"/>	FACU	Woody vine – All woody vines greater than 3.28 ft in height.					
5. <i>Juncus effusus</i>	5	<input type="checkbox"/>	OBL						
6.		<input type="checkbox"/>							
7.		<input type="checkbox"/>							
8.		<input type="checkbox"/>							
9.		<input type="checkbox"/>							
10.		<input type="checkbox"/>							
11.		<input type="checkbox"/>							
							100 = Total Cover		
							50.0 = Total Cover		
							20.0 = Total Cover		
Woody Vine Stratum (Plot size: 30')							Hydrophytic Vegetation Present?		
1.	2.	3.	4.	5.	<input type="radio"/> Yes	<input checked="" type="radio"/> No			
							0 = Total Cover		
							50.0 = Total Cover		
							20.0 = Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)									
Hydrophytic plant community observed.									

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

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.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Power Plant Road Relocation Project	City/County: Blairsville/Indiana	Sampling Date: 06.06.24
Applicant/Owner: Homer City Generation LP	State: PA	Sampling Point: STP-12
Investigator(s): S.Stauffer, PWS	Section, Township, Range:	
Landform (hillslope, terrace, etc.): depression	Local relief (concave, convex, none): concave	Slope (%): 4-6
Subregion (LRR or MLRA): LRR N	Lat: 40.508189°	Long: -79.189532°
Soil Map Unit Name: HnF: Hazleton channery sandy loam, 25 to 70 percent slopes	NWI classification: N/A	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="radio"/> No <input type="radio"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> 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 <input checked="" type="radio"/> No <input type="radio"/>	Hydric Soil Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>
Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>					
<p>Remarks:</p> <p>Weather: Overcast, 74°F. Precipitation in Past 24 Hours: 0.38", Total Precipitation in Past 7 Days: 0.38" (CoCoRahs Station PA-IN-4: Indiana 2.8 E)</p> <p>STP-11 is located in a depression within PEM wetland W-10.</p>					

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </td> </tr> </table> <p>Secondary Indicators (minimum of two required)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) </td> </tr> </table>						<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)						
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)													
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)														
<p>Field Observations:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Surface Water Present?</td> <td>Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td>Depth (inches): 0.25</td> </tr> <tr> <td>Water Table Present?</td> <td>Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td>Depth (inches): 0</td> </tr> <tr> <td>Saturation Present? (includes capillary fringe)</td> <td>Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td>Depth (inches): 0</td> </tr> </table> <p>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/></p> <p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p> <p>Remarks:</p> <p>Hydrological indicators observed.</p>						Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): 0.25	Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): 0	Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): 0
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): 0.25												
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): 0												
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): 0												

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

Sampling Point: STP-12

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Carya laciniosa</i>		20	<input checked="" type="checkbox"/>	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)	
2. <i>Prunus serotina</i>		10	<input type="checkbox"/>	FACU	Total Number of Dominant Species Across All Strata: 3 (B)	
3. <i>Liriodendron tulipifera</i>		5	<input type="checkbox"/>	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)	
4.			<input type="checkbox"/>			
5.			<input type="checkbox"/>			
6.			<input type="checkbox"/>			
7.			<input type="checkbox"/>			
		35	= Total Cover			
50% of total cover: 17.5		20% of total cover: 7.0				
Sapling/Shrub Stratum (Plot size: 15')					Prevalence Index worksheet:	
1. <i>Carya laciniosa</i>	5	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:	
2.		<input type="checkbox"/>		OBL species 25	x 1 = 25	
3.		<input type="checkbox"/>		FACW species 50	x 2 = 100	
4.		<input type="checkbox"/>		FAC species 25	x 3 = 75	
5.		<input type="checkbox"/>		FACU species 25	x 4 = 100	
6.		<input type="checkbox"/>		UPL species 0	x 5 = 0	
7.		<input type="checkbox"/>		Column Totals: 125	(A) 300 (B)	
8.		<input type="checkbox"/>		Prevalence Index = B/A = 2.40		
9.		<input type="checkbox"/>				
		5	= Total Cover			
50% of total cover: 2.5		20% of total cover: 1.0				
Herb Stratum (Plot size: 5')					Hydrophytic Vegetation Indicators:	
1. <i>Impatiens capensis</i>	50	<input checked="" type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation		
2. <i>Symplocarpus foetidus</i>	25	<input checked="" type="checkbox"/>	OBL	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
3. <i>Onoclea sensibilis</i>	15	<input type="checkbox"/>	FACW	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹		
4. <i>Urtica dioica</i>	10	<input type="checkbox"/>	FACU	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.		<input type="checkbox"/>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
6.		<input type="checkbox"/>				
7.		<input type="checkbox"/>				
8.		<input type="checkbox"/>				
9.		<input type="checkbox"/>				
10.		<input type="checkbox"/>				
11.		<input type="checkbox"/>				
		100	= Total Cover			
50% of total cover: 50.0		20% of total cover: 20.0				
Woody Vine Stratum (Plot size: 30')					Definitions of Four Vegetation Strata:	
1.		<input type="checkbox"/>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2.		<input type="checkbox"/>		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
3.		<input type="checkbox"/>		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4.		<input type="checkbox"/>		Woody vine – All woody vines greater than 3.28 ft in height.		
5.		<input type="checkbox"/>				
		0	= Total Cover			
50% of total cover: 0.0		20% of total cover: 0.0				
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>						

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

Hydrophytic vegetation indicators observed

SOIL

Sampling Point: STP-12

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

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: _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicators observed.

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.

Shane Stauffer – Shane serves as an Environmental Specialist in the Airside office (Moon Township, PA) of Michael Baker International, Inc. Shane offers over 10 years of natural resource and environmental site investigation experience. Shane's experience includes wetland delineations, stream assessments, aquatic habitat assessments, macroinvertebrate studies, electrofishing surveys, mine surface subsidence investigations and category 3 and 4 dam safety inspections. Shane has conducted work across multiple industries including, oil and gas, dam safety, mining, cultural resources, surveying, and mobile LIDAR. Shane has a bachelor's degree in Environmental Science from Penn State University. Shane completed the USACE 38 Hour Army Corps of Engineers Wetland Delineation Training Program in April of 2015 and received a Plants of the Northeastern Region Wetland Boundary Identification Certification in March of 2017. Shane received a Professional Wetland Scientist certification from The Society of Wetland Scientists in 2019.