

Wetland and Waterbody Delineation Report

Project Raylan

PREPARED FOR
Justified DataPower LLC

DATE
04/30/2026

REFERENCE
0820115



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1. INTRODUCTION

On behalf of Justified DataPower LLC, Environmental Resources Management, Inc. (ERM) performed a desktop review and field delineation for wetlands and waterbodies (streams and open water features such as lakes or ponds) within the proposed Project Raylan (Project) in Hancock County, Kentucky. The following report describes the site location, existing conditions, methodologies, survey findings, and conclusions associated with this site assessment.

A desktop review was conducted to identify the potential for the occurrence of wetlands, waterbodies, and other sensitive environmental areas. This was completed using the U.S. Geological Survey (USGS) topographic maps, high resolution aerial photography, National Hydrography Dataset (NHD), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) database, and Federal Emergency Management Agency (FEMA) floodplain data.

Following the desktop review, ERM conducted a jurisdictional waters determination (JWD) on 09 December 2025. An additional JWD was conducted on 08-09 April 2026 to include an increase in the Project boundary. Detailed survey results are provided below. The figures referenced in the following report are provided in Appendix A, the Antecedent Precipitation Tool (APT) results and the National Center for Environmental Information (NCEI) and Western Kentucky University Mesonet (WKUM) dataset summaries are included in Appendix B, the Site photographs are included in Appendix C, and the United States Army Corps of Engineers (USACE) wetland determination data forms and Rapid Bioassessment Protocol (RBP) stream data forms are included in Appendix D.

2. SITE LOCATION

The Project encompasses approximately 310.6 acres of unincorporated land in Hancock County, Kentucky, located approximately 4 miles northwest of Hawesville, Kentucky (Appendix A, Figures 1 and 2). Based on ERM's review of desktop resources, including aerial imagery via GoogleEarth (2025), access to the Project is primarily available from the west on KY 334 (River Road). The east side is bordered by the Ohio River, the south side an industrial complex, and north an open field.



3. METHODOLOGY

The Environmental Protection Agency (EPA) and US Department of the Army (US Army Corps of Engineers; USACE) define Waters of the United States (WOTUS), including wetlands and regulate impacts WOTUS features under Section 404 of the Clean Water Act (CWA). The definition of a wetland remains: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas (Code of Federal Regulations §230.3(t)).

On March 12, 2025, the USACE and United States Environmental Protection Agency (USEPA) issued a joint memorandum providing guidance for the proper implementation of the definition of "waters of the United States" under both regulatory regimes currently operative across the country:

- The "Revised Definition of 'Waters of the United States,'" as amended by the final rule "Revised Definition of 'Waters of the United States'; Conforming" (the amended 2023 rule; 33 C.F.R. 328 and 40 CFR 120; 88 FR 61964, September 8, 2023); and
- The "pre-2015 regulatory regime" consistent with the Supreme Court's decision in *Sackett v. Environmental Protection Agency*, 598 U.S. 651 (2023).

The joint USACE/USEPA Memorandum provides "Guidance on Wetlands with a Continuous Surface Connection," that states that: "Under either the amended 2023 regulatory definition of "waters of the United States" or the pre-2015 regulatory regime consistent with *Sackett*, the agencies are interpreting "waters of the United States" to include "only those adjacent wetlands that have a continuous surface connection because they directly abut the [requisite jurisdictional water] (e.g., they are not separated by uplands, a berm, dike, or similar feature)."

ERM delineated wetlands and waterbodies at the Project on 09 December 2025 and again on 08-09 April 2026 to include an increase in Project size. The surveys were conducted in accordance with the three-parameter methodology outlined in the 1987 USACE *Wetlands Delineation Manual* (Manual), the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region (Version 2.0)*, and per the March 12, 2025 Memorandum to the Field (USACE 2025) concerning the proper implementation of "continuous surface connection" under WOTUS issued jointly by the U.S. Environmental Protection Agency and the USACE.

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

- The presence of hydrophytic vegetation - Hydrophytic vegetation is determined by the dominant species present at any given data point, where each species is assigned a plant indicator status as to its preference/tolerance for wetland conditions. Data points having dominant species that are greater than 50 percent facultative or wetter are considered to meet the hydrophytic vegetation criterion.



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

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

To identify wetlands and waterbodies within the Project, the area was traversed on foot. Data points were taken within the Project to verify or refute the presence of wetland soils, vegetation, and hydrology. USACE wetland data forms were completed at each sample point. One corresponding upland community sample point was also taken for each identified wetland or wetland complex. If more than one Cowardin class of wetland was observed within a larger wetland complex, the boundaries of each unique Cowardin class were identified and separate USACE wetland data forms were completed for each class within the complex. Completed USACE Eastern Mountains and Piedmont Region wetland determination data forms are presented in Appendix D. In addition, ERM assessed stream channels qualitatively with the Rapid Bioassessment Protocol (RBP) in accordance with US Environmental Protection Agency (EPA) and Kentucky Division of Water (KDOW) guidelines. Completed RBP stream data forms are presented in Appendix D.

ERM utilized Arrow 100 Plus and Trimble R1 Submeter Receivers to obtain coordinates for the wetland data points, wetland boundaries, and waterbody boundaries during the field survey efforts. These units are capable of sub-meter accuracy (following post-processing and differential correction via a known base station) and allows for the digital data to be incorporated into drawings for mapping/design purposes.



4. RESULTS

The following sections present the results of the desktop analysis, and the WOTUS field surveys conducted on 09 December 2025 and on 08-09 April 2026.

4.1 EXISTING SITE CONDITIONS

The Project is located in the Wabash-Ohio Bottomlands (72a) Level IV Ecoregion (Woods et. al 2002) and is located within the South Yellow Creek Fork-Ohio River watershed (HUC 12: 051402010703; USGS 2025). The Project site was accessed from the south through the current industrial complex.

The Project mainly consists of fallow field with some areas mowed for appearance and suppression of woody growth. The property's vegetation management practices and non-growing season conditions during the December 2025 wetland delineation survey resulted in limited distinguishing features available for plant identification. As such, most of the non-growing season vegetation observed consists of grasses and Japanese honeysuckle (*Lonicera japonica*) in the uplands, and *Juncus* and sedge species in the wetland areas. The wetland vegetation was observed to be similar in species during the April 2026 delineation, however, its upland vegetation observation included the now-visible tall fescue and bluegrass. According to aerial imagery and desktop resources, natural hydrology drains north to northwest primarily via a large ditch that extends beyond the Project boundary into an unnamed tributary of the Ohio River present within the fenceline riparian forest area.

The proposed Project is anticipated to have no impact within the Ohio River; however, the following context is provided for the Ohio River:

- USACE defines the Ohio River as a traditional navigable water. As such, activities or impacts within the Ohio River could be subject to regulation under Section 10 of the River and Harbors Act of 1899 and possibly Section 404 of the Clean Water Act.
- Kentucky Division of Water's 2022 Assessment Unit Summary for the Ohio River (RMI 729.95 to 724.2; Newburgh Pool) determined that the Ohio River condition only partially supported the state water quality standards and did not support primary contact recreation or fish consumption.

Topography at the Project is classified as flat with gentle slopes. Elevation ranges from 366 to 424 feet above mean sea level, with the high point in the east portion of the Project (Appendix A, Figure 2). Soils within the Project are disturbed and undisturbed with slopes ranging from 0 to 12 percent. The identified soil mapping units are provided in Table 1 below and indicate that three are hydric soils, five soils have hydric components, three soils are non-hydric and all soils are considered Prime Farmland (SSURGO 2026) (Appendix A; Figure 3).



TABLE 1 SUMMARY OF SOILS WITHIN THE PROJECT

Map Unit Symbol	Map Unit Name	Acres within Project	Percentage of Project	Hydric Rating
AIF	Alluvial land, steep (wheeling flooded)	7.3	2.4%	2
EkA	Elk silt loam, 0 to 2 percent slopes, rarely flooded	14.0	4.5%	0
EkB	Elk silt loam, 2 to 6 percent slopes, rarely flooded	74.7	24.0%	0
EkC	Elk silt loam, 6 to 12 percent slopes, rarely flooded	3.4	1.1%	0
OtA	Otwood silt loam, 0 to 2 percent slopes, rarely flooded	30.6	9.8%	1
uGnA	Ginat silt loam, 0 to 2 percent slopes, rarely flooded	44.1	14.2%	95
uGnoA	Ginat silt loam, 0 to 2 percent slopes, occasionally flooded	1.2	0.4%	90
uMeIA	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded	67.7	21.8%	90
W	Water	6.1	2.0%	NA
Wh	Weinbach silt loam, 0 to 2 percent slopes, rarely flooded	44.2	14.2%	5
WnA	Wheeling loam, 0 to 2 percent slopes, rarely flooded	10.4	3.4%	1
WnB	Wheeling loam, 2 to 6 percent slopes, rarely flooded	7.1	2.3	1
Total Acreage		310.6	100%	

The USFWS NWI identified three aquatic systems including approximately 9.84 acres of freshwater pond, 0.10 acres of lake, and 2.66 acres of riverine within the Project. No wetland features were identified within the Project by USFWS NWI. The USGS NHD mapping did not identify any streams within the Project (Appendix A; Figure 4).

Additionally, in accordance with the desktop and field analysis, no waterways are present within the Project that would require a special use or cold-water habitat designation (e.g., Outstanding State Resource Waters, Coldwater Aquatic Habitats, or other Special Use Waters) from the Kentucky Division of Water (KDOW; KDOW 2025).



According to FEMA Flood Insurance Rate Maps (FIRMs), the Project includes approximately 69 acres of Zone AE floodway, 75 acres of Zone AE floodplain with 1% chance of flood hazard, and an additional 66 acres with 0.2% chance of flood hazard. The remaining acres are identified as within floodplain Zone X. (Appendix A, Figure 5)

Climatic conditions at the Project were evaluated utilizing the Antecedent Precipitation Tool, developed by the USACE and the EPA. The APT assesses recent precipitation patterns by comparing 30-day rolling totals to a 30-year historical normal range to determine if conditions are drier than normal, normal, or wetter than normal at the time of investigation. Additional climatic information was evaluated utilizing WKUM and (NCEI) historical datasets.

Based on the APT output for the Project, climatic conditions during the 09 December 2025 delineation effort were classified as normal conditions, were not influenced by abnormal precipitation and considered consistent with the region's wet season. The WKUM network does not maintain a station in Hancock County, however, the aggregate data from adjacent Ohio County and the NCEI indicates dryer than normal conditions in the surrounding counties and western Kentucky in general, during the 08-09 April 2026 delineation. A summary of APT results and WKUM/NCEI data is included in Appendix B.

4.2 WETLANDS

Interpretations of federal and/or state jurisdictional status by feature detailed below are based on current WOTUS definition and ERM's professional opinion; however, official approved jurisdictional determination authority lies with USACE, EPA, and KDOW.

During the onsite delineations, ERM identified a total of five Palustrine Emergent (PEM) wetland areas in December 2025 and additional nine PEM wetland areas in April 2026 totaling 13.59 acres within the Project Area.

Wetland 01: WET01 is considered directly adjacent to a relatively permanent water (RPW) via its continuous surface connection with STR01.

Wetland 02: Due to site access limitations, WET02 was only able to be mapped to the Project fenceline during the December 2025 field survey efforts; however, it was indirectly observed to continue underneath the fenceline and into the riparian forest line so is considered to be directly adjacent to a relatively permanent water (RPW) via its offsite continuous surface connection with STR01.

Wetland 03: Wetland 3 collectively consists of a series of connected polygonal and linear wetland features which are described in this report as four subsets: WET03, WET03a, WET03b, and WET03c. Wetlands 03a, 03b, and 03c were linear wetlands. Wetland areas WET03, WET03a, WET03b, and WET03c are contiguously connected to each other and are all provided adjacency to a relatively permanent water (RPW) via the culverted continuous surface connection between WET03 and STR01.



Wetland 04: WET04 and WET04a are located in close vicinity with similar characteristics; however, are considered distinct, non-adjacent features. Both WET04 and WET04a are non-adjacent to relatively permanent waters and lack a continuous surface connection; therefore, WET04 and WET04a are anticipated to be non-jurisdictional features at both the federal and state level.

Wetland 05: WET05 is directly connected to Wetland 03 which provides adjacency to a relatively permanent water via the culverted continuous surface connection between WET03 and STR01.

Wetland 06: WET06 is located in microtopography of low wet areas and higher drier areas. WET06 is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET06 is anticipated to be non-jurisdictional feature at both the federal and state level.

Wetland 07: WET07 is a long linear wetland located in a depression and is directly connected to polygonal wetlands WET10 and WET13. STR03, an ephemeral drains from the south into WET07. WET07 is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET07 is anticipated to be non-jurisdictional feature at both the federal and state level.

Wetland 08: WET08 is an isolated polygonal wetland located in a depression and is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET08 is anticipated to be non-jurisdictional feature at both the federal and state level.

Wetland 09: WET09 is an isolated polygonal wetland located in a depression and is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET09 is anticipated to be non-jurisdictional features at both the federal and state level.

Wetland 10: WET10 is a polygonal wetland located in a depression with connection to wetlands WET07 and WET13. WET10 is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET10 is anticipated to be non-jurisdictional feature at both the federal and state level.

Wetland 11: WET11 is considered directly adjacent to a relatively permanent water (RPW) via its continuous surface connection with STR01.

Wetland 12: WET12 is an isolated linear wetland located in a depression and is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET12 is anticipated to be non-jurisdictional features at both the federal and state level.

Wetland 13: WET13 is a polygonal wetland located in a depression with connection to wetlands WET07 and WET10. WET13 is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET13 is anticipated to be non-jurisdictional feature at both the federal and state level.

Wetland 14: WET14 is an isolated polygonal wetland located in a depression and is non-adjacent to relatively permanent waters and lacks a continuous surface connection; therefore, WET14 is anticipated to be non-jurisdictional features at both the federal and state level.



Preliminary jurisdictional opinions presented here are based off the current definition of WOTUS and waters of the Commonwealth of Kentucky. Table 2 below lists each wetland by a unique Feature ID, Cowardin classification, feature acreage, and preliminary jurisdictional opinion. The delineated wetland features are shown in Appendix A, Figure 6. A photographic log of representative wetland types is presented in Appendix C. Additional details and justifications for the classification of the wetlands can be found on the USACE Wetland Determination Data Forms, provided in Appendix D.

TABLE 2 WETLANDS IDENTIFIED WITHIN THE PROJECT

Feature	Cowardin Classification¹	Area (Acres)²	Preliminary Jurisdictional Opinion³	Latitude	Longitude
WET01*	PEM	0.10	Jurisdictional	37.946516	-86.792816
WET02*	PEM	0.74	Jurisdictional	37.953509	-86.794032
WET03*	PEM	0.27	Jurisdictional	37.955541	-86.789796
WET03a*	PEM	2.31	Jurisdictional	37.955359	-86.791497
WET03b*	PEM	0.10	Jurisdictional	37.953793	-86.789033
WET03c*	PEM	0.08	Jurisdictional	37.952264	-86.789765
WET04*	PEM	1.00	Non-Jurisdictional	37.955584	-86.787756
WET04a*	PEM	0.09	Non-Jurisdictional	37.954657	-86.786872
WET05*	PEM	1.54	Jurisdictional	37.951037	-86.789520
WET06**	PEM	1.30	Non-Jurisdictional	37.936764	-86.786202
WET07**	PEM	1.29	Non-Jurisdictional	37.937832	-86.788750
WET08**	PEM	1.52	Non-Jurisdictional	37.937561	-86.789319
WET09**	PEM	0.04	Non-Jurisdictional	37.938179	-86.790225
WET10**	PEM	0.68	Non-Jurisdictional	37.940356	-86.791261
WET11**	PEM	0.15	Jurisdictional	37.941027	-86.789205
WET12**	PEM	0.10	Non-Jurisdictional	37.939681	-86.788938
WET13**	PEM	2.15	Non-Jurisdictional	37.942966	-86.791862
WET14**	PEM	0.12	Non-Jurisdictional	37.947886	-86.794860
Total		13.59			



Feature	Cowardin Classification ¹	Area (Acres) ²	Preliminary Jurisdictional Opinion ³	Latitude	Longitude
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¹ Classifications are based on ERM's professional judgment of actual field conditions.

² Feature size within Project Area.

³ Jurisdictional determinations and boundaries when presented are preliminary and subject to final verification by the USACE, EPA, or KDOW, as appropriate.

* Wetlands delineated December 2025

** Wetlands delineated April 2026

4.3 WATERBODIES

4.3.1 WATERWAYS

During the delineations, ERM identified three waterway features totaling approximately 6,604 linear feet with 6,145 linear feet as perennial and 459 linear feet as ephemeral. Two waterways were observed with perennial flow regimes but would be considered open water jurisdictional ditches, NWI classified them as riverine (Cowardian R4SBCx). The ephemeral stream was not listed on the NWI. Photographs of these features are provided in Appendix C.

STR01: STR01 is an unnamed jurisdictional ditch tributary approximately 5,896 linear feet in length and 20 to 30 feet wide which transects the Property flowing from the southwest corner to the northern boundary. At the Project boundary, STR01 was observed to continue flowing off-site under the fence, along the riparian forest line's presumed unnamed tributary to the Ohio River, and ultimately into the Ohio River. STR01 is considered to be jurisdictional WOTUS due to its continuous surface connection via relatively permanent waters and ultimate connection with the Ohio River, a traditional navigable water.

STR02: STR02 is an unnamed jurisdictional ditch tributary approximately 249 linear feet in length before its confluence with STR01. STR02 is approximately 20 feet wide and was observed with perennial flow during the normal wet season. STR02 is considered to be jurisdictional WOTUS due to its continuous surface connection via relatively permanent waters and ultimate connection with the Ohio River, a traditional navigable water.

STR03: STR03 is an unnamed non-jurisdictional ephemeral channel flowing from a 24-inch culvert under River Road and into WET07. STR03 is considered to be non-jurisdictional WOTUS due to its lack of continuous surface connection via relatively permanent waters.

Preliminary jurisdictional opinions presented here are based off the current definition of WOTUS and waters of the Commonwealth of Kentucky. Table 3 lists each stream by a unique feature name, flow regime, length in linear feet, along with preliminary jurisdictional opinion. The delineated stream features are shown in Appendix A, Figure 6. A photographic log is presented in Appendix C. Rapid Bioassessment Protocol data forms for streams are provided in Appendix D.



TABLE 3 WATERWAYS IDENTIFIED WITHIN THE PROJECT

Feature ID	Flow Regime	Length (Linear feet) ²	Preliminary Jurisdictional Opinion ³
STR01	Perennial	5,896	Jurisdictional
STR02	Perennial	249	Jurisdictional
STR03	Ephemeral	459	Non-jurisdictional
	Total	3,343	

4.3.2 OPEN WATERBODIES

ERM identified zero open waterbodies throughout the Project Area during the jurisdictional wetland delineation field survey efforts.

5. CONCLUSION

ERM conducted a desktop review and field delineation to identify wetlands, waterways, and waterbodies within the Project. A total of 14 wetlands (totaling 13.59 acres), two jurisdictional ditches (totaling 6,145 linear feet), and zero open waterbodies were identified within the Project Area. PEM wetlands 01, 02, 03, 03a, 03b, 03c, 05 and 11 and perennial waterways STR01 and STR02 were considered to be preliminary jurisdictional features subject to regulations under the current definition of WOTUS. PEM wetlands 04, 04a, 06, 07, 08, 09, 10, 12, 13, and 14 lacked adjacency and continuous surface connection and therefore were considered to be preliminary non-jurisdictional features.

Although these findings are based upon a survey utilizing USACE-approved protocols and current regulatory guidance, the USACE must make the official determinations on the presence or absence of jurisdictional WOTUS in the Project through the jurisdictional determination process.



6. REFERENCES

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APPENDIX A FIGURES

DRAWN BY: GIS

FILE: M:\US\Projects\US-UTeraWulf Inc\Hawesville_KY\ArcGIS\Delineation\Hawesville.aprx, REVISED: 04/21/2026, SCALE: 1:100,000 when printed at 11x17



Legend
 Project Boundary

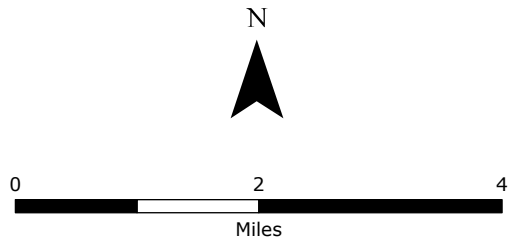
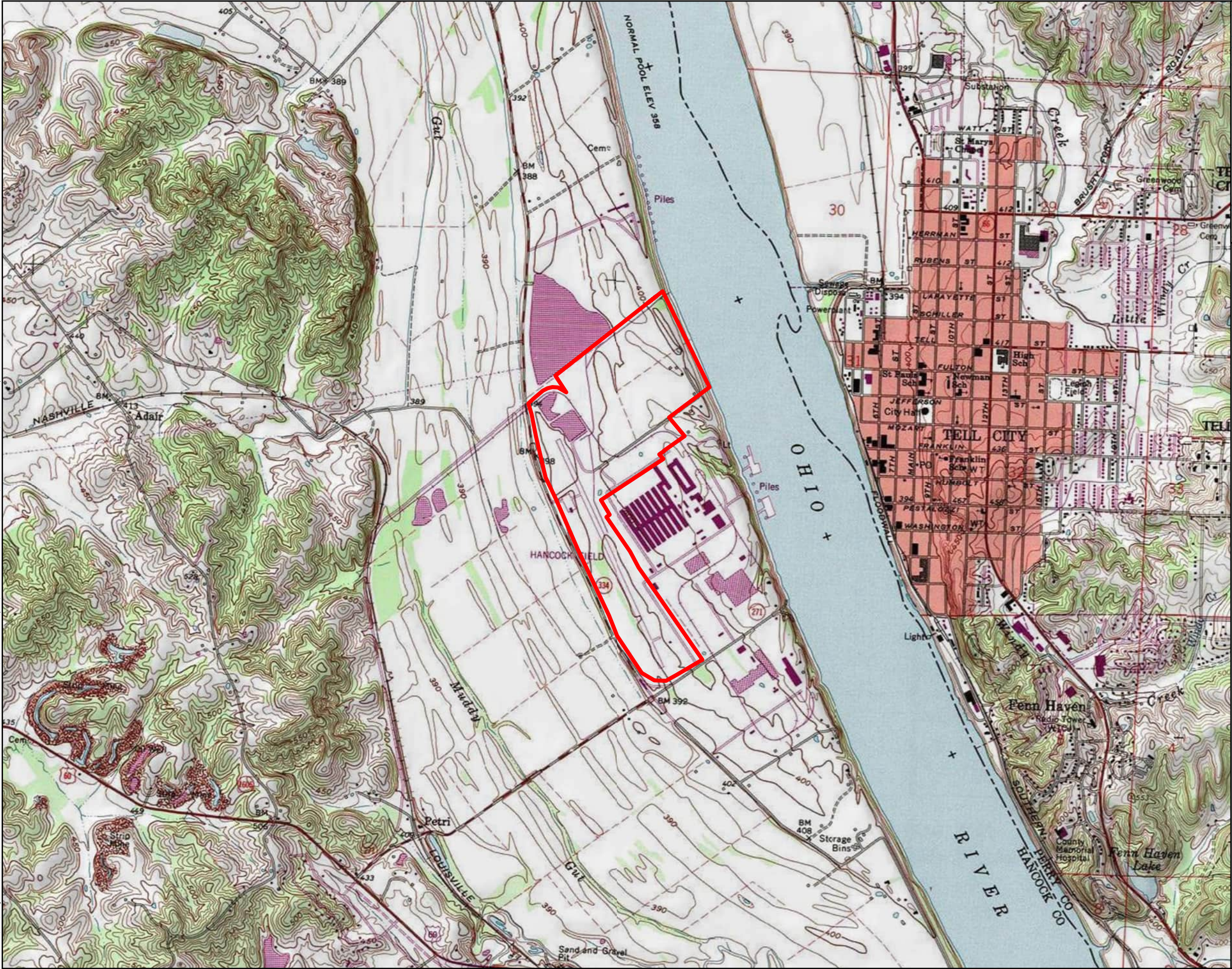


Figure 1
Site Location Map
Hawesville
Justified DataPower LLC
Hancock County, Kentucky





Legend
Project Boundary

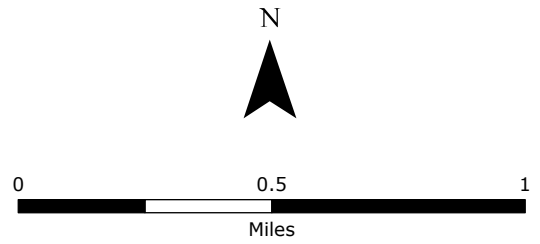
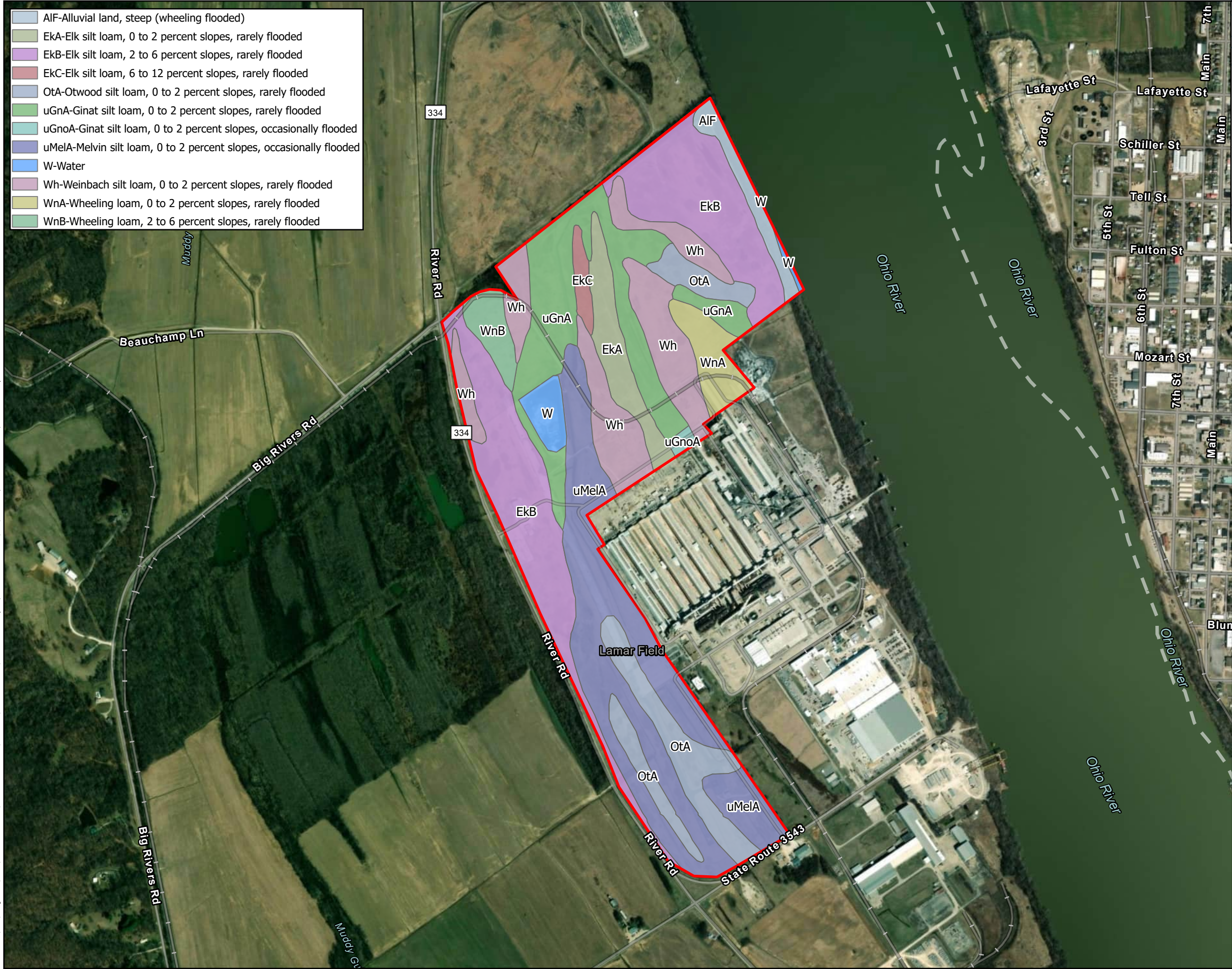


Figure 2
USGS Topographic Map
Hawesville
Justified DataPower LLC
Hancock County, Kentucky



DRAWN BY: GIS

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Legend
Project Boundary

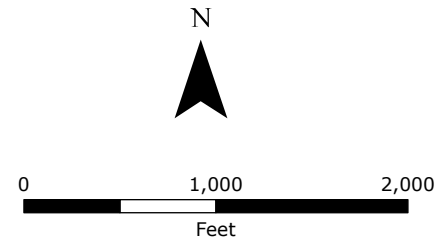
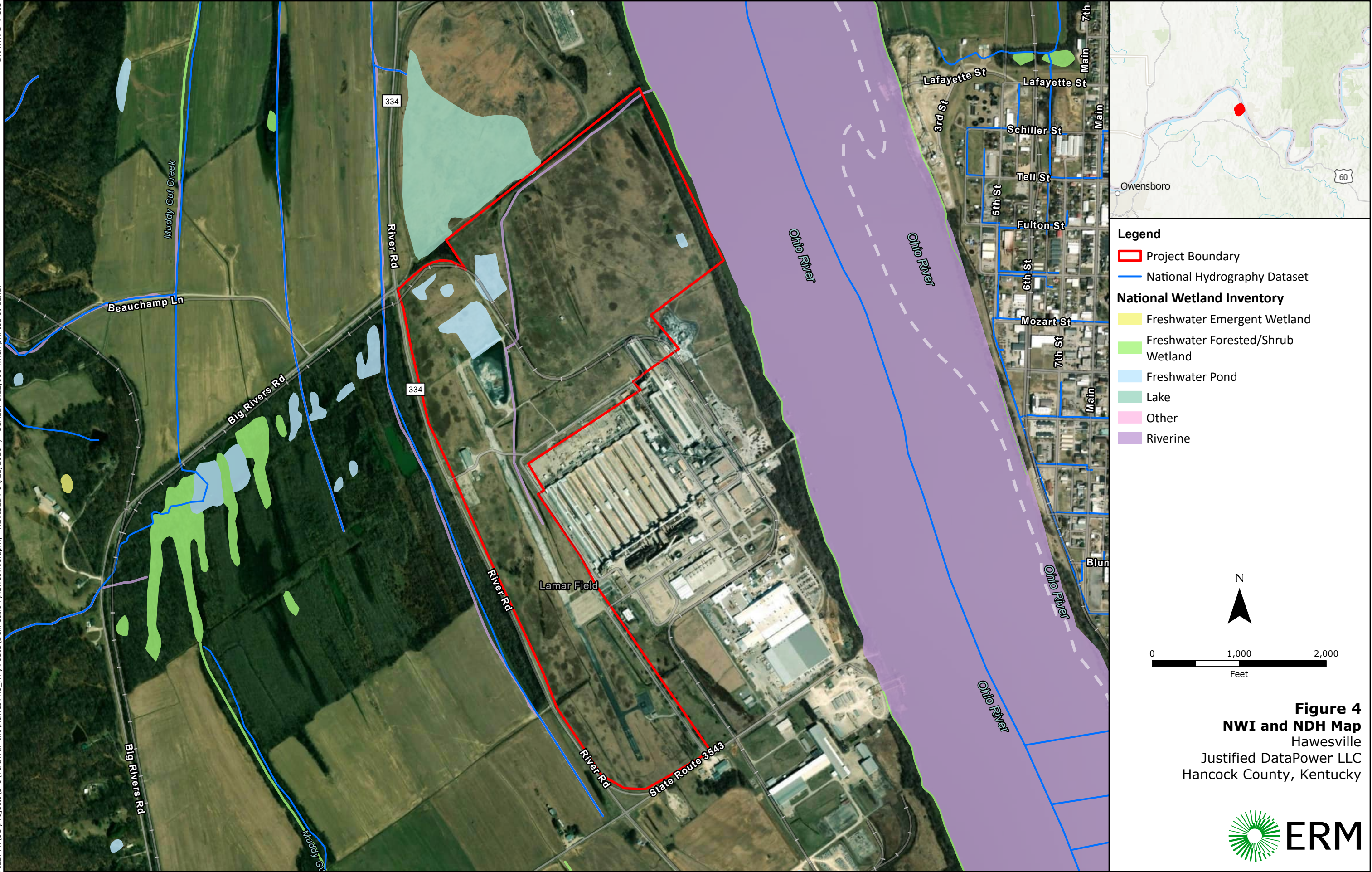
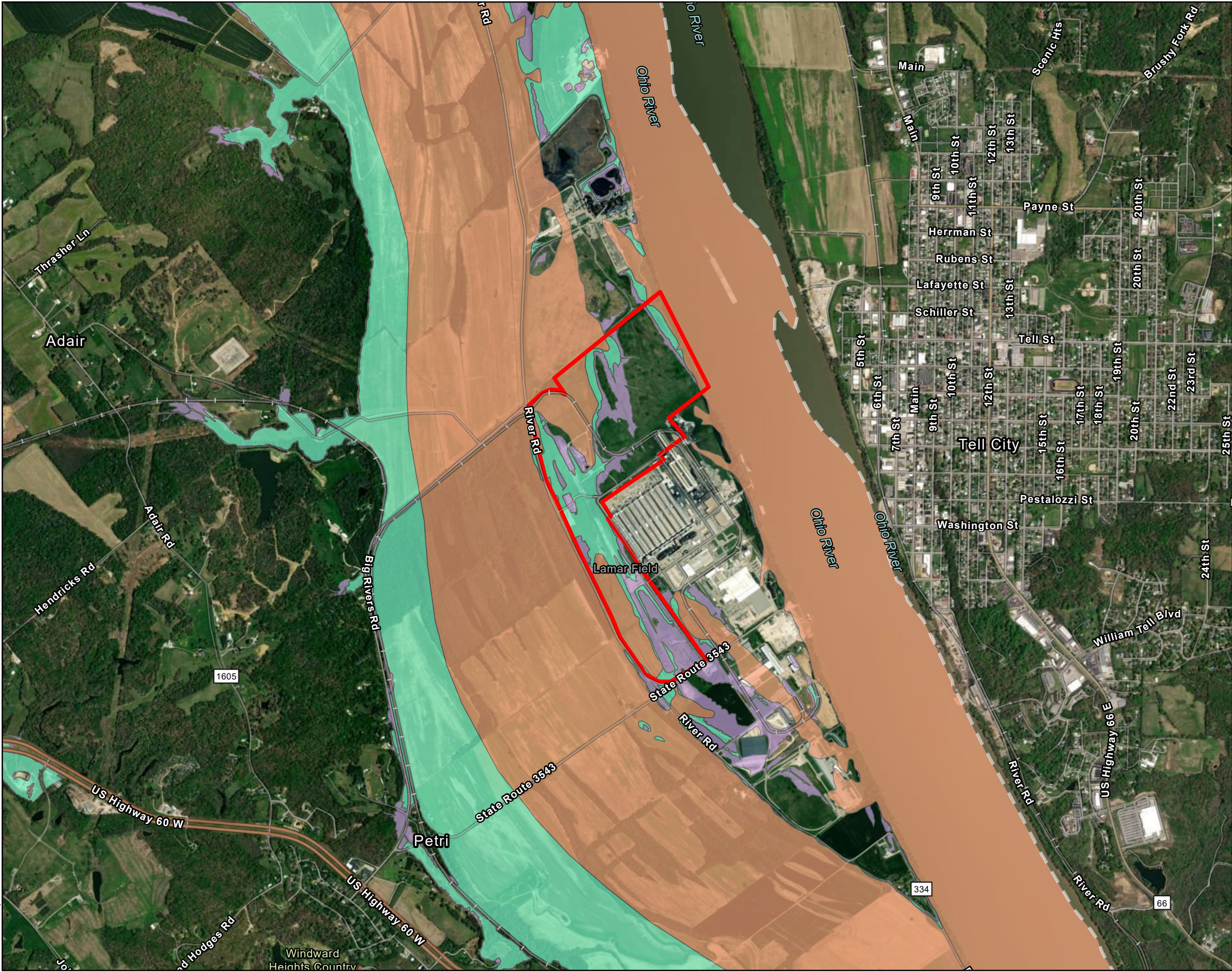


Figure 3
Soils Map
Hawesville
Justified DataPower LLC
Hancock County, Kentucky







Legend

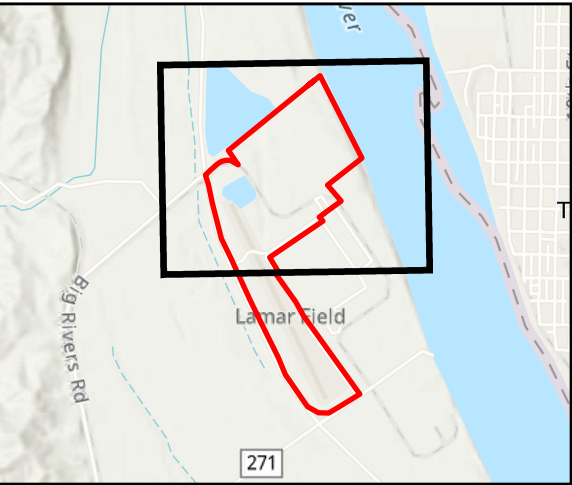
- Project Boundary
- Zone AE (1% Annual Chance of Flood)
- Zone X (0.2% Annual Chance of Flood)
- Zone AE Floodway (1% Annual Chance of Flood)

N

0 0.5 1
Miles

Figure 5
FEMA Flood Hazard Map
Hawesville
Justified DataPower LLC
Hancock County, Kentucky

ERM



Legend

- Project Boundary
- PEM Wetland (13.59 acres)
- Perennial Stream (6,145 linear feet)
- Ephemeral Stream (459 linear feet)
- Fence
- Wetland Datapoint
- Upland Datapoint
- Culvert

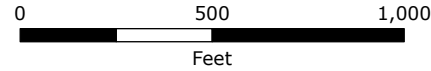
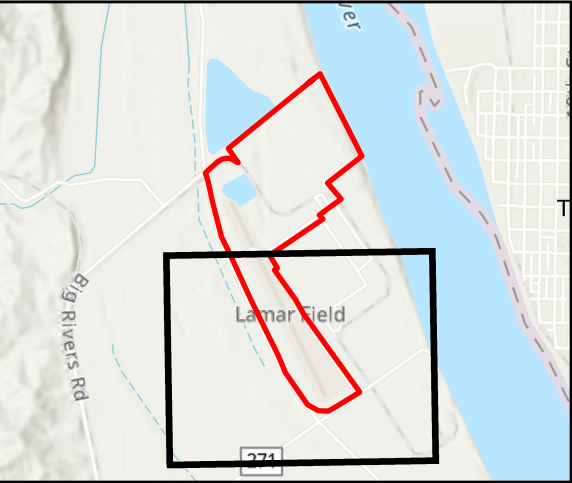


Figure 6.1
Wetland Delineation Map
Hawesville
Justified DataPower LLC
Hancock County, Kentucky





Legend

- ▭ Project Boundary
- ▭ PEM Wetland (13.59 acres)
- ▬ Perennial Stream (6,145 linear feet)
- ▬ Ephemeral Stream (459 linear feet)
- ▬ Fence
- Wetland Datapoint
- Upland Datapoint
- Culvert

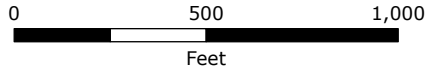


Figure 6.2
Wetland Delineation Map
Hawesville
Justified DataPower LLC
Hancock County, Kentucky

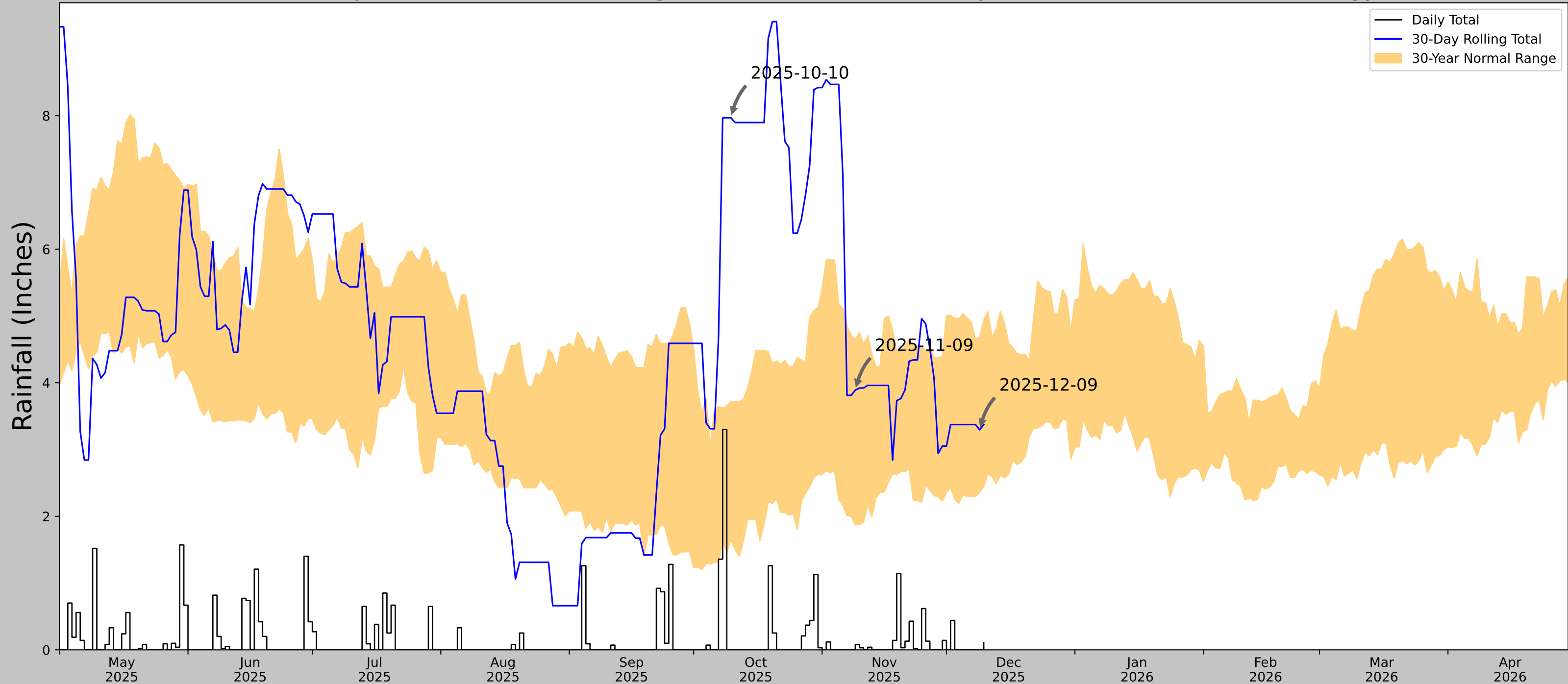




APPENDIX B

ANTICEDENT PRECIPITATION TOOL (APT) RESULTS

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.95554, -86.79039
Observation Date	2025-12-09
Elevation (ft)	-1
Drought Index (PDSI)	Mild wetness (2025-11)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-12-09	2.361417	4.679921	3.295276	Normal	2	3	6
2025-11-09	1.874016	4.642126	3.889764	Normal	2	2	4
2025-10-10	1.648032	3.72441	7.968504	Wet	3	1	3
Result							Normal Conditions - 13



US Army Corps of Engineers.



Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
TELL CITY	37.9531, -86.7747	390.092	0.871	391.092	0.733	10806	90
TELL CITY 0.9 NNE	37.9618, -86.7506	426.837	1.444	36.745	0.703	19	0
CANNELTON	37.8994, -86.7072	401.903	5.225	11.811	2.413	523	0
LEWISPORT 2.8 E	37.9334, -86.8517	488.845	4.411	98.753	2.421	1	0
LEWISPORT 4 S	37.8933, -86.9061	395.013	8.268	4.921	3.761	4	0



APPENDIX C

PHOTOGRAPHIC LOG

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 1.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking east 37.946526 -86.792823		
DESCRIPTION WET01_W along STR01		

PHOTO NO. 2.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking north 37.946528 -86.792976		
DESCRIPTION WET01_U		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 3.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking north 37.953519 -86.794043		
DESCRIPTION WET02_W		

PHOTO NO. 4.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking south 37.953603 -86.794140		
DESCRIPTION WET02_U		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 5.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking north 37.955566 -86.789805		
DESCRIPTION WET03_W		

PHOTO NO. 6.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking south 37.955554 -86.790385		
DESCRIPTION WET03_U		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 7.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking south 37.954289 -86.791962		
DESCRIPTION Example of WET03b and WET03c linear wetland in drainage area		

PHOTO NO. 8.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking north 37.955591 -86.787756		
DESCRIPTION WET04_W		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 9.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking south 37.955549 -86.787896		
DESCRIPTION WET04_U		

PHOTO NO. 10.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking south 37.951057 -86.789537		
DESCRIPTION WET05_W		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO.

11.

DATE

09 12 2025

DIRECTION PHOTO TAKEN

Looking southeast
37.953820
-86.793411

DESCRIPTION

Looking upstream at STR01



PHOTO NO.

12.

DATE

09 12 2025

DIRECTION PHOTO TAKEN

Looking northwest

DESCRIPTION

Looking downstream at
STR01 where it exits the
Property



CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 13.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking west 37.947153 -86.793046		
DESCRIPTION STR02 looking upstream		

PHOTO NO. 14.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking east		
DESCRIPTION STR02 downstream at the confluence of STR01		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 15.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking north 37.952145 -86.794183		
DESCRIPTION Standing in a location NWI had identified as a pond along the west side of the Project		

PHOTO NO. 16.	DATE 09 12 2025	
DIRECTION PHOTO TAKEN Looking west 37.953232 -86.786496		
DESCRIPTION Standing in a location NWI had identified as a pond along the east side of the Project		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 17.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking east 37.936764 -86.786202		
DESCRIPTION WET06		

PHOTO NO. 18.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking northwest 37.937832 -86.788750		
DESCRIPTION Linear wetland WET07		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 19.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking west 37.937561 -86.789319		
DESCRIPTION WET08		

PHOTO NO. 20.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking north 37.938179 -86.790225		
DESCRIPTION WET09, no soil samples taken due to possible underground utilities		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 21.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking north 37.940356 -86.791261		
DESCRIPTION WET10		

PHOTO NO. 22.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking est 37.941027 -86.789205		
DESCRIPTION WET11		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 23.	DATE 09 April 2026	
DIRECTION PHOTO TAKEN Looking east 37.939681 -86.788938		
DESCRIPTION Linear wetland WET12		

PHOTO NO. 24.	DATE 09 April 2026	
DIRECTION PHOTO TAKEN Looking north 37.942966 -86.791862		
DESCRIPTION WET13		

CLIENT: Justified DataPower LLC

SITE LOCATION: Hawesville Site
Project

PROJECT NO.: 0820115

PHOTO NO. 25.	DATE 09 April 2026	
DIRECTION PHOTO TAKEN Looking north 37.947886 -86.794860		
DESCRIPTION WET14		

PHOTO NO. 26.	DATE 08 April 2026	
DIRECTION PHOTO TAKEN Looking upstream 37.938915 -86.789983		
DESCRIPTION Ephemeral stream STR03		



APPENDIX D

USACE WETLAND DATA FORMS & RAPID BIOASSESSMENT PROTOCOL FORMS

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
---	---

Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET01_u
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	concave	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.946528	Long:	-86.792976
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0-2%, occasionally flooded (uMelA)	NWI classification:	Hydric		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒ No ☐	(If no, explain in Remarks.)			
Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ significantly disturbed?	Yes ☒ No ☐	Are "Normal Circumstances" present?			
Are Vegetation ☒ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☐ No ☐	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☒ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)

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

 Sampling Point: WET01_u

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>200</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.64</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>55</u> (A)	<u>200</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>20</u>	x 3 = <u>60</u>																	
FACU species <u>35</u>	x 4 = <u>140</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>55</u> (A)	<u>200</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: _____)																		
1. <i>Setaria pumila</i>	20	Yes	FAC	Hydrophytic Vegetation Indicators: ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is >50% ____ 3 - Prevalence Index is ≤3.0 ¹ ____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <i>Schedonorus arundinaceus</i>	10	No	FACU															
3. <i>Andropogon virginicus</i>	25	Yes	FACU															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ 55 = Total Cover																		
50% of total cover: <u>28</u> 20% of total cover: <u>11</u>																		
Woody Vine Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: WET01_u**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-15	10YR 3/1	90	10YR 5/6	10	RM	M	Loamy/Clayey	
15-16	10YR 4/4	100						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:**

The presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part".

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
---	---

Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET01_w
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	concave	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.946526	Long:	-86.792823
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0-2%, occasionally flooded (uMelA)	NWI classification:	Hydric		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒ No ☐	(If no, explain in Remarks.)			
Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ significantly disturbed?	Yes ☒ No ☐	Are "Normal Circumstances" present?			
Are Vegetation ☒ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☒ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☒ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
--

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

 Sampling Point: WET01_w

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: _____)																				
1. <i>Typha angustifolia</i>	15	Yes	OBL																	
2. <i>Scirpus atrovirens</i>	10	Yes	OBL																	
3. <i>Sedge sp</i>	10	Yes																		
4. <i>Rumex crispus</i>	2	No	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ 37 = Total Cover																				
50% of total cover: <u>19</u> 20% of total cover: <u>8</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Hydrophytic Vegetation Present? Yes <u>X</u> No _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: WET01_w**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/1	70	10YR 5/6	30	RM	M	Loamy/Clayey	
8-16	10YR 5/6	60	10YR 6/1	30	RM	M		
			10YR 3/1	10	RM	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:**

The presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part".

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET02_u
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	none	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.953603	Long:	-86.794140
Datum:	WGS84				
Soil Map Unit Name:	Ginat silt loam, 0-2%, rarely flooded (uGnA)		NWI classification: Hydric		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)					
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐					
Are Vegetation ☒ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)					

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

Hydrophytic Vegetation Present?	Yes ☐ No ☒	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
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VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: WET02_u

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>16</u></td> <td>x 3 = <u>48</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>8</u></td> <td>x 5 = <u>40</u></td> </tr> <tr> <td>Column Totals: <u>59</u> (A)</td> <td><u>228</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.86</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>16</u>	x 3 = <u>48</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>8</u>	x 5 = <u>40</u>	Column Totals: <u>59</u> (A)	<u>228</u> (B)	Prevalence Index = B/A = <u>3.86</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>16</u>	x 3 = <u>48</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>8</u>	x 5 = <u>40</u>																			
Column Totals: <u>59</u> (A)	<u>228</u> (B)																			
Prevalence Index = B/A = <u>3.86</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: _____)																				
1. <i>Chaerophyllum tainturieri</i>	8	Yes	FAC																	
2. <i>Valerianella locusta</i>	8	Yes	UPL																	
3. <i>Sedge sp</i>	3	No																		
4. <i>Schedonorus arundinaceus</i>	15	Yes	FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
34 =Total Cover																				
50% of total cover: <u>17</u> 20% of total cover: <u>7</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. <i>Lonicera japonica</i>	20	Yes	FACU																	
2. <i>Clematis virginiana</i>	8	Yes	FAC																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
28 =Total Cover																				
50% of total cover: <u>14</u> 20% of total cover: <u>6</u>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Hydrophytic Vegetation Present? Yes No x

SOIL

Sampling Point: WET02_u**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/3	100					Loamy/Clayey	
6-16	10YR 5/1	95	10YR 5/6	5	D	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET02_w
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	concave	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.953519	Long:	-86.794043
		Datum:	WGS84		
Soil Map Unit Name:	Ginat silt loam, 0-2%, rarely flooded (uGnA)		NWI classification:	Hydric	
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes	x	No	(If no, explain in Remarks.)	
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?	Are "Normal Circumstances" present?	Yes	x	No	_____
Are Vegetation x _____, Soil _____, or Hydrology _____ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes	X	No	_____	Is the Sampled Area within a Wetland?	Yes	X	No	_____
Hydric Soil Present?	Yes	X	No	_____					
Wetland Hydrology Present?	Yes	X	No	_____					
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.									

HYDROLOGY

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

 Sampling Point: WET02_w

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>175</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.06</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>85</u> (A)	<u>175</u> (B)	Prevalence Index = B/A = <u>2.06</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>80</u>	x 2 = <u>160</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>85</u> (A)	<u>175</u> (B)																			
Prevalence Index = B/A = <u>2.06</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: _____)																				
1. <i>Juncus effusus</i>	80	Yes	FACW																	
2. <i>Setaria pumila</i>	5	No	FAC																	
3. <i>Sedge sp</i>	15	No																		
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ 100 = Total Cover																				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: WET02_w**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 5/1	90	10YR 5/4	10	RM	PL/M	Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 X No _____**Remarks:**

The presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part".

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

 Sampling Point: WET03_u

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>3</u></td> <td>x 5 = <u>15</u></td> </tr> <tr> <td>Column Totals: <u>48</u> (A)</td> <td><u>195</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.06</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>3</u>	x 5 = <u>15</u>	Column Totals: <u>48</u> (A)	<u>195</u> (B)	Prevalence Index = B/A = <u>4.06</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>45</u>	x 4 = <u>180</u>																			
UPL species <u>3</u>	x 5 = <u>15</u>																			
Column Totals: <u>48</u> (A)	<u>195</u> (B)																			
Prevalence Index = B/A = <u>4.06</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: _____)																				
1. <u>Schedonorus arundinaceus</u>	10	Yes	FACU	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.																
2. <u>Plantago lanceolata</u>	3	No	UPL																	
3. <u>Andropogon virginicus</u>	20	Yes	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
33 =Total Cover																				
50% of total cover: <u>17</u> 20% of total cover: <u>7</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. <u>Lonicera japonica</u>	15	Yes	FACU	Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
15 =Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: WET03_u**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/4	100					Loamy/Clayey	
3-16	10YR 5/6	100					Loamy/Clayey	

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)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
☐ Loamy Mucky Mineral (F1) (**MLRA 136**)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
☐ Umbric Surface (F13) (**MLRA 122, 136**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
☐ Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
☐ Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

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 X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET03_w
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	Concave	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.955566	Long:	-86.789805
		Datum:	WGS84		
Soil Map Unit Name:	Elk Silt Loam, 2-6%, rarely flooded (EkB)		NWI classification:	Non hydric	
Are climatic / hydrologic conditions on the site typical for this time of year?		Yes	x	No	
		(If no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology significantly disturbed?		Yes	x	No	
Are Vegetation x, Soil, or Hydrology naturally problematic?		(If needed, explain any answers in Remarks.)			

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

Hydrophytic Vegetation Present?	Yes	X	No		Is the Sampled Area within a Wetland?	Yes	X	No	
Hydric Soil Present?	Yes	X	No						
Wetland Hydrology Present?	Yes	X	No						
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.									

HYDROLOGY

Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>							
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)			☐ Surface Soil Cracks (B6)			
☒ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)			☐ Sparsely Vegetated Concave Surface (B8)			
☒ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)			☐ Drainage Patterns (B10)			
☐ Water Marks (B1)	☒ Presence of Reduced Iron (C4)			☐ Moss Trim Lines (B16)			
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)			☐ Dry-Season Water Table (C2)			
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)			☐ Crayfish Burrows (C8)			
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)			☐ Saturation Visible on Aerial Imagery (C9)			
☐ Iron Deposits (B5)				☐ Stunted or Stressed Plants (D1)			
☐ Inundation Visible on Aerial Imagery (B7)				☒ Geomorphic Position (D2)			
☐ Water-Stained Leaves (B9)				☐ Shallow Aquitard (D3)			
☐ Aquatic Fauna (B13)				☐ Microtopographic Relief (D4)			
				☒ FAC-Neutral Test (D5)			
Field Observations:				Wetland Hydrology Present? Yes X No			
Surface Water Present?	Yes	No	x				
Water Table Present?	Yes	x	No	Depth (inches):	2		
Saturation Present?	Yes	x	No	Depth (inches):	9		
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

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

 Sampling Point: WET03_w

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>6</u></td> <td>x 4 = <u>24</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>86</u> (A)</td> <td><u>184</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.14</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>6</u>	x 4 = <u>24</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>86</u> (A)	<u>184</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>80</u>	x 2 = <u>160</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>6</u>	x 4 = <u>24</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>86</u> (A)	<u>184</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: _____)																		
1. <i>Juncus effusus</i>	80	Yes	FACW															
2. <i>Sedge sp</i>	10	No																
3. <i>Solanum carolinense</i>	3	No	FACU															
4. <i>Schedonorus arundinaceus</i>	3	No	FACU															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
96 =Total Cover																		
50% of total cover: <u>48</u> 20% of total cover: <u>20</u>																		
Woody Vine Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: WET03_w**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100						
2-16	10YR 5/2	90	10YR 5/6	10	RM	PL/M	Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☒ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 X No _____**Remarks:**

The presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part".

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET04_u
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	Convex	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.955549	Long:	-86.787896
		Datum:	WGS84		
Soil Map Unit Name:	Elk Silt Loam, 2-6%, rarely flooded (EkB)		NWI classification:	Non hydric	
Are climatic / hydrologic conditions on the site typical for this time of year?		Yes	x	No	
		(If no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology significantly disturbed?		Yes	x	No	
Are Vegetation x, Soil, or Hydrology naturally problematic?		(If needed, explain any answers in Remarks.)			

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

Hydrophytic Vegetation Present?	Yes		No	x	Is the Sampled Area within a Wetland?	Yes		No	x
Hydric Soil Present?	Yes		No	X					
Wetland Hydrology Present?	Yes		No	X					
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.									

HYDROLOGY

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

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

 Sampling Point: WET04_u

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>410</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.90</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>105</u> (A)	<u>410</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>5</u>	x 2 = <u>10</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>105</u> (A)	<u>410</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: _____)																		
1. <i>Lonicera japonica</i>	80	Yes	FACU	Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <i>Andropogon virginicus</i>	20	No	FACU															
3. <i>Juncus effusus</i>	5	No	FACW															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
105 =Total Cover																		
50% of total cover: <u>53</u> 20% of total cover: <u>21</u>																		
Woody Vine Stratum (Plot size: _____)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: WET04_u**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 5/3	100						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET04_w
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	concave	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.955591	Long:	-86.787756
		Datum:	WGS84		
Soil Map Unit Name:	Elk Silt Loam, 2-6%, rarely flooded (EkB)		NWI classification:	Non hydric	
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes	x	No	(If no, explain in Remarks.)	
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?	Are "Normal Circumstances" present?		Yes	x	No _____
Are Vegetation x, Soil _____, or Hydrology _____ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes	X	No	_____	Is the Sampled Area within a Wetland?	Yes	X	No	_____
Hydric Soil Present?	Yes	X	No	_____					
Wetland Hydrology Present?	Yes	X	No	_____					
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt. This data sheet covers WET04_W and WET04_Wa									

HYDROLOGY

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

 Sampling Point: WET04_w

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>155</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.07</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>155</u> (B)	Prevalence Index = B/A = <u>2.07</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>15</u>	x 1 = <u>15</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>155</u> (B)																			
Prevalence Index = B/A = <u>2.07</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. <u>Salix nigra</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Herb Stratum (Plot size: _____)																				
1. <u>Juncus effusus</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Setaria pumila</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: WET04_w**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 5/1	90	10YR 5/6	10	RM	PL/M	Loamy/Clayey	

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)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
☐ Loamy Mucky Mineral (F1) (**MLRA 136**)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
☐ Umbric Surface (F13) (**MLRA 122, 136**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
☐ Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
☐ Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

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 X No _____

Remarks:

The presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part".

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hawesville / Hancock	Sampling Date:	12/09/2025
Applicant/Owner:	Justified DataPower LLC	State:	KY	Sampling Point:	WET05_w
Investigator(s):	Ralph Schuler, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Fringe	Local relief (concave, convex, none):	concave	Slope (%):	1-2
Subregion (LRR or MLRA):	LRR N	Lat:	37.951057	Long:	-86.789537
		Datum:	WGS84		
Soil Map Unit Name:	Weinbach Silt Loam, 2-6%, rarely flooded (EkB)	NWI classification:	Partial hydric		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒ No ☐	(If no, explain in Remarks.)			
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Yes ☒ No ☐	Are "Normal Circumstances" present?			
Are Vegetation ☒ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: The week prior 3 inches of snow fell on the site. It took a full week for it to melt.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☒ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)

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

 Sampling Point: WET05_w

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>33</u></td> <td>x 4 = <u>132</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>48</u> (A)</td> <td><u>172</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.58</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>33</u>	x 4 = <u>132</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>48</u> (A)	<u>172</u> (B)	Prevalence Index = B/A = <u>3.58</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>33</u>	x 4 = <u>132</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>48</u> (A)	<u>172</u> (B)																			
Prevalence Index = B/A = <u>3.58</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: _____)																				
1. <i>Ambrosia artemisiifolia</i>	10	Yes	FACU																	
2. <i>Juncus effusus</i>	5	No	FACW																	
3. <i>Setaria pumila</i>	10	Yes	FAC																	
4. <i>Andropogon virginicus</i>	15	Yes	FACU																	
5. <i>Schedonorus arundinaceus</i>	8	No	FACU																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
48 =Total Cover																				
50% of total cover: <u>24</u> 20% of total cover: <u>10</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.) Due to problematic vegetation, vegetation during the growing season could easily be hydric																				

Hydrophytic Vegetation Present? Yes x No

SOIL

Sampling Point: WET05_w**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	100					Loamy/Clayey	
2-16	10YR 5/1	95	10YR 5/6	5	RM	M	Loamy/Clayey	

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)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
☐ Loamy Mucky Mineral (F1) (**MLRA 136**)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
☐ Umbric Surface (F13) (**MLRA 122, 136**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
☐ Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
☐ Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

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:

The presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part".

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET06_PEN
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):		Local relief (concave, convex, none):		Slope (%):	
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.936756	Long:	-86.786193
		Datum:	WGS84		
Soil Map Unit Name:	Otwood silt loam, 0 to 2 percent slopes, rarely flooded	NWI classification:	None		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No	(If no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology significantly disturbed?	Yes ☒	No	Are "Normal Circumstances" present? Yes ☒ No		
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒	No	Is the Sampled Area within a Wetland?	Yes ☒ No
Hydric Soil Present?	Yes ☒	No		
Wetland Hydrology Present?	Yes ☒	No		
Remarks: Area sampled is wetland				

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☒ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)

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

 Sampling Point: WET06 PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>70</u></td> <td>x 1 = <u>70</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>190.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.9</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>70</u>	x 1 = <u>70</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>190.00</u> (B)	Prevalence Index = B/A = <u>1.9</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>70</u>	x 1 = <u>70</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>190.00</u> (B)																			
Prevalence Index = B/A = <u>1.9</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Juncus abortivus</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>	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.																
2. <u>Schizachyrium scoparium</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐																
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET06_PEM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		%	Redox Features			Texture	Remarks
	Color (moist)			Color (moist)	%	Type ¹		
0-16	10YR	6/1	60	7.5 YR	4/6	40	SILTY CLAY LOAM	Redox in matrix Hydric
¹ Type: 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) ☐ Iron Monosulfide (A18) ☐ Sandy Mucky Mineral (S1) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☒ Stripped Matrix (S6) ☐ Dark Surface (S7) ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) ☐ Thin Dark Surface (S9) (MLRA 147, 148) ☐ Loamy Mucky Mineral (F1) (MLRA 136) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☒ Redox Depressions (F8) ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) ☐ Umbric Surface (F13) (MLRA 122, 136) ☐ Piedmont Floodplain Soils (F19) (MLRA 148) ☐ Red Parent Material (F21) (MLRA 127, 147, 148) Indicators for Problematic Hydric Soils³: ☐ 2 cm Muck (A10) (MLRA 147) ☐ Coast Prairie Redox (A16) (MLRA 147, 148) ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147) ☐ Red Parent Material (F21) (outside MLRA 127, 147, 148) ☐ Very Shallow Dark Surface (F22) ☐ Other (Explain in Remarks) 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 soils present								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Hawesville Site Project City/County: Hancock County Sampling Date: 2026-04-08
Applicant/Owner: Justified DataPower LLC State: Kentucky Sampling Point: WET06_U
Investigator(s): Edward Bolenbaugh, Hayden Alvey-Knapp Section, Township, Range: _____
Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR or MLRA): LRR N, MLRA 120A Lat: 37.936739 Long: -86.786230 Datum: WGS84
Soil Map Unit Name: Otwood silt loam, 0 to 2 percent slopes, rarely flooded NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:
Area sampled is upland

HYDROLOGY

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

Remarks:
Hydrological indicators not met

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

 Sampling Point: WET06 U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>380.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.8</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>380.00</u> (B)	Prevalence Index = B/A = <u>3.8</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>380.00</u> (B)																			
Prevalence Index = B/A = <u>3.8</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Lonicera japonica</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Schizachyrium scoparium</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Setaria parviflora</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																				

SOIL

Sampling Point: WET06_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type ¹	Loc ²		
0-8	10YR	6/2	70	7.5YR 4/6	30		SICL	
8-16	10YR	6/2	80	7.5YR 5/8	20		SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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 soils present

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Hawesville Site Project City/County: Hancock County Sampling Date: 2026-04-08
Applicant/Owner: Justified DataPower LLC State: Kentucky Sampling Point: WET07_PEN
Investigator(s): Edward Bolenbaugh Section, Township, Range: _____
Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N, MLRA 120A Lat: 37.940359 Long: -86.790290 Datum: WGS84
Soil Map Unit Name: Melvin silt loam, 0 to 2 percent slopes, occasionally flooded NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No _____	Is the Sampled Area within a Wetland? Yes ☒ No _____
Hydric Soil Present? Yes ☒ No _____	
Wetland Hydrology Present? Yes ☒ No _____	
Remarks: Area sampled is wetland	

HYDROLOGY

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

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

 Sampling Point: WET07_PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>85</u></td> <td>x 1 = <u>85</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>135.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.35</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>85</u>	x 1 = <u>85</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>135.00</u> (B)	Prevalence Index = B/A = <u>1.35</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>85</u>	x 1 = <u>85</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>135.00</u> (B)																			
Prevalence Index = B/A = <u>1.35</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Juncus abortivus</u>	<u>85</u>	<u>Y</u>	<u>OBL</u>	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.																
2. <u>Schizachyrium scoparium</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
3. <u>Persicaria maculosa</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation dominant																				

SOIL

Sampling Point: WET07_PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 6/1	65	7.5YR 5/8	35			SICL	Depression in matrix depleted matrix

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☒ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 identify area as

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcl.d.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Hawesville Site Project City/County: Hancock County Sampling Date: 2026-04-08
Applicant/Owner: Justified DataPower LLC State: Kentucky Sampling Point: WET07_U
Investigator(s): Edward Bolenbaugh, Hayden Alvey-Knapp Section, Township, Range: _____
Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR or MLRA): LRR N, MLRA 120A Lat: 37.940363 Long: -86.790260 Datum: WGS84
Soil Map Unit Name: Melvin silt loam, 0 to 2 percent slopes, occasionally flooded NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:
Area sampled is upland

HYDROLOGY

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

Remarks:
Hydrological indicators not met

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

 Sampling Point: WET07_U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>60</u></td> <td>x 5 = <u>300</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>460.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.6</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>60</u>	x 5 = <u>300</u>	Column Totals: <u>100</u> (A)	<u>460.00</u> (B)	Prevalence Index = B/A = <u>4.6</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>40</u>	x 4 = <u>160</u>																			
UPL species <u>60</u>	x 5 = <u>300</u>																			
Column Totals: <u>100</u> (A)	<u>460.00</u> (B)																			
Prevalence Index = B/A = <u>4.6</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Setaria adhaerens</u>	<u>60</u>	<u>Y</u>	<u>UPL</u>	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.																
2. <u>Schizachyrium scoparium</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET07_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	90	7.5YR 5/8	10			SICL	
4-12	10YR 6/2	80	7.5YR 5/8	20			SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☒ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: Hard pack, mixed aggregate backfill

Depth (inches): 12

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils present

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Hawesville Site Project City/County: Hancock County Sampling Date: 2026-04-08
Applicant/Owner: Justified DataPower LLC State: Kentucky Sampling Point: WET08_PEN
Investigator(s): Edward Bolenbaugh, Hayden Alvey-Knapp Section, Township, Range: _____
Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR or MLRA): LRR N, MLRA 120A Lat: 37.937555 Long: -86.789314 Datum: WGS84
Soil Map Unit Name: Melvin silt loam, 0 to 2 percent slopes, occasionally flooded NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No _____	Is the Sampled Area within a Wetland? Yes ☒ No _____
Hydric Soil Present? Yes ☒ No _____	
Wetland Hydrology Present? Yes ☒ No _____	
Remarks: Area sampled is wetland	

HYDROLOGY

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

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

 Sampling Point: WET08 PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>150.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.5</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>150.00</u> (B)	Prevalence Index = B/A = <u>1.5</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>50</u>	x 1 = <u>50</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>150.00</u> (B)																			
Prevalence Index = B/A = <u>1.5</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Juncus abortivus</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Carex grayi</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Carex caroliniana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET08_PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 5/2	80	7.5YR 4/6	20			SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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 soils present

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET08_U
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):		Local relief (concave, convex, none):		Slope (%):	
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.937572	Long:	-86.789269
		Datum:	WGS84		
Soil Map Unit Name:	Otwood silt loam, 0 to 2 percent slopes, rarely flooded	NWI classification:	None		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No ☐	(If no, explain in Remarks.)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present?		Yes ☒	No ☐	
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Area sampled is upland					

HYDROLOGY

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

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

 Sampling Point: WET08 U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>410.00</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.1</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>100</u> (A)	<u>410.00</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>10</u>	x 5 = <u>50</u>																	
Column Totals: <u>100</u> (A)	<u>410.00</u> (B)																	
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																		
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
0 = Total Cover																		
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																		
Herb Stratum (Plot size: <u>5' radius</u>)																		
1. <u>Poa pratensis</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Vicia sativa</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
3. <u>Setaria adhaerens</u>	<u>10</u>	<u>N</u>	<u>UPL</u>															
4. <u>Schizachyrium scoparium</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
100.0 = Total Cover																		
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																		
Woody Vine Stratum (Plot size: <u>30' radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
0 = Total Cover																		
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																		

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes _____ No ✓

SOIL

Sampling Point: WET08_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/3	95	10YR 4/4	5			SIC	
6-16	10YR 6/2	90	7.5YR 5/8	10			SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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 soils not present

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

 Sampling Point: WET09_PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>180.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>180.00</u> (B)	Prevalence Index = B/A = <u>2.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>90</u> (A)	<u>180.00</u> (B)																			
Prevalence Index = B/A = <u>2.0</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Juncus effusus</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Carex caroliniana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____	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.																
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
90.0 = Total Cover																				
50% of total cover: <u>45.0</u> 20% of total cover: <u>18.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET09_PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 dig - due to electrical/radio equipment in immediate area. See photos

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET09_U
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):		Local relief (concave, convex, none):		Slope (%):	
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.938135	Long:	-86.790242
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded	NWI classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No ☐	(If no, explain in Remarks.)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present?		Yes ☒	No ☐	
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Area sampled is upland					

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
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VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: WET09 U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400.00</u> (B)	Prevalence Index = B/A = <u>4.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>100</u>	x 4 = <u>400</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>400.00</u> (B)																			
Prevalence Index = B/A = <u>4.0</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Lonicera japonica</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	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.																
2. <u>Poa pratensis</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>																
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																				

SOIL

Sampling Point: WET09_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 dig - nearby machinery

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET10_PEN
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):		Local relief (concave, convex, none):		Slope (%):	
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.940356	Long:	-86.791267
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded	NWI classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No	(If no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology significantly disturbed?	Yes ☒	No	Are "Normal Circumstances" present? Yes ☒ No		
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒	No	Is the Sampled Area within a Wetland?	Yes ☒ No
Hydric Soil Present?	Yes ☒	No		
Wetland Hydrology Present?	Yes ☒	No		
Remarks: Area sampled is wetland				

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
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VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: WET10 PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>240.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.4</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>240.00</u> (B)	Prevalence Index = B/A = <u>2.4</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>80</u>	x 2 = <u>160</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>240.00</u> (B)																			
Prevalence Index = B/A = <u>2.4</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Carex caroliniana</u>	<u>45</u>	<u>Y</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Acer saccharinum</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Lonicera japonica</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET10_PEM

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

Depth (inches)	Matrix			Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type ¹	Loc ²		
0-6	10YR	5/3	80	7.5YR	4/4	20			SICL	
6-16	10YR	6/2	80	7.5YR	4/6	20			SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 ^x _____ No _____

Remarks:

Hydric soils present

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

 Sampling Point: WET10 U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400.00</u> (B)	Prevalence Index = B/A = <u>4.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>100</u>	x 4 = <u>400</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>400.00</u> (B)																			
Prevalence Index = B/A = <u>4.0</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Lonicera japonica</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	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.																
2. <u>Schizachyrium scoparium</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>																
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																				

SOIL

Sampling Point: WET10_U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		%	Redox Features			Texture	Remarks
	Color (moist)			Color (moist)	%	Type ¹		
0-6	10YR	5/6	100				SIL	
6-16	10YR	5/8	100				SIL	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)	☐ 2 cm Muck (A10) (MLRA 147)	
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	☐ Coast Prairie Redox (A16)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)	☐ (MLRA 147, 148)	
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19)	
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ (MLRA 136, 147)	
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ (outside MLRA 127, 147, 148)	
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	☐ Very Shallow Dark Surface (F22)	
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N,	☐ Other (Explain in Remarks)	
☐ Sandy Mucky Mineral (S1)	☐ MLRA 136)		
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)		
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)		
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)		
☐ Dark Surface (S7)			

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 soils not present		

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET11_PEN
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):		Local relief (concave, convex, none):		Slope (%):	
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.941028	Long:	-86.789206
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded	NWI classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No ☐	(If no, explain in Remarks.)		
Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present?	Yes ☒	No ☐		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☒	No ☐
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☒	No ☐			
Remarks: Area sampled is wetland					

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☒ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)

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

 Sampling Point: WET11_PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>95</u></td> <td>x 1 = <u>95</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>105.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.05</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>95</u>	x 1 = <u>95</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>105.00</u> (B)	Prevalence Index = B/A = <u>1.05</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>95</u>	x 1 = <u>95</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>105.00</u> (B)																			
Prevalence Index = B/A = <u>1.05</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Typha latifolia</u>	<u>95</u>	<u>Y</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Eupatorium semiserratum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____	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.																
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET11_PEM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0-4	5PB	4/1	100				SIC		
4-16	10YR	5/4	95	5YR	5/8	5	SICL		

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)	☐ 2 cm Muck (A10) (MLRA 147)	
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	☐ Coast Prairie Redox (A16)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)	☐ (MLRA 147, 148)	
☐ Hydrogen Sulfide (A4)	☒ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19)	
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ (MLRA 136, 147)	
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ (outside MLRA 127, 147, 148)	
☐ Thick Dark Surface (A12)	☒ Redox Depressions (F8)	☐ Very Shallow Dark Surface (F22)	
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N,	☐ Other (Explain in Remarks)	
☐ Sandy Mucky Mineral (S1)	☐ MLRA 136)		
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)		
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)		
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)		
☐ Dark Surface (S7)			

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 ☐
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Remarks:
 Hydric soils present - soils disturbed, likely filled from another location on site

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08			
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET11_U			
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:						
Landform (hillside, terrace, etc.):	Slope	Local relief (concave, convex, none):	Convex	Slope (%):	0-2			
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.940973	Long:	-86.789238			
		Datum:	WGS84					
Soil Map Unit Name:	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded		NWI classification:					
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes	☒	No	(If no, explain in Remarks.)				
Are Vegetation		Soil	☒	or Hydrology				
				significantly disturbed?	Are "Normal Circumstances" present?			
					Yes	☒	No	☐
Are Vegetation		Soil		or Hydrology		(If needed, explain any answers in Remarks.)		
				naturally problematic?				

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

Hydrophytic Vegetation Present?	Yes	☐	No	☒	Is the Sampled Area within a Wetland?	Yes	☐	No	☒
Hydric Soil Present?	Yes	☐	No	☒					
Wetland Hydrology Present?	Yes	☐	No	☒					
Remarks: Area sampled is upland									

HYDROLOGY

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

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

 Sampling Point: WET11_U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>415.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.15</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>85</u>	x 4 = <u>340</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>100</u> (A)	<u>415.00</u> (B)	Prevalence Index = B/A = <u>4.15</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>85</u>	x 4 = <u>340</u>																			
UPL species <u>15</u>	x 5 = <u>75</u>																			
Column Totals: <u>100</u> (A)	<u>415.00</u> (B)																			
Prevalence Index = B/A = <u>4.15</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Lolium perenne</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	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.																
2. <u>Setaria adhaerens</u>	<u>15</u>	<u>N</u>	<u>UPL</u>																	
3. <u>Schizachyrium scoparium</u>	<u>15</u>	<u>N</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant - commercial seed mix																				

SOIL

Sampling Point: WET11_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/6	100					SIL	
6-16	10YR 5/6	90	7.5YR 4/6	10			SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 soils not present - soils disturbed, gravel inside

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET12_PEN
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):		Local relief (concave, convex, none):	Concave	Slope (%):	0-2
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.939677	Long:	-86.788942
		Datum:	WGS84		
Soil Map Unit Name:	Otwood silt loam, 0 to 2 percent slopes, rarely flooded	NWI classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No ☐	(If no, explain in Remarks.)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present?	Yes ☒	No ☐		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☒	No ☐
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☒	No ☐			
Remarks: Area sampled is wetland					

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☒ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)

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

 Sampling Point: WET12_PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>20</u></td> <td>x 5 = <u>100</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>160.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>80</u> (A)	<u>160.00</u> (B)	Prevalence Index = B/A = <u>2.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>60</u>	x 1 = <u>60</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>20</u>	x 5 = <u>100</u>																			
Column Totals: <u>80</u> (A)	<u>160.00</u> (B)																			
Prevalence Index = B/A = <u>2.0</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Juncus abortivus</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	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.																
2. <u>Setaria adhaerens</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
80.0 = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐																
50% of total cover: <u>40.0</u> 20% of total cover: <u>16.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET12_PEM

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

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)		Color (moist)		%	Type ¹	Loc ²		
0-5	10YR	6/2	90	7.5YR	5/6	10		SICL	
5-16	10YR	6/3	70	7.5YR	4/4	30		SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☒ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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 soils present

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET12_U
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Slope	Local relief (concave, convex, none):	Convex	Slope (%):	0-2
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.939680	Long:	-86.788938
		Datum:	WGS84		
Soil Map Unit Name:	Otwood silt loam, 0 to 2 percent slopes, rarely flooded	NWI classification:	None		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No ☐	(If no, explain in Remarks.)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present?		Yes ☒	No ☐	
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Area sampled is upland					

HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)					
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)		☐ Surface Soil Cracks (B6)		
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)		☐ Sparsely Vegetated Concave Surface (B8)		
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)		☐ Drainage Patterns (B10)		
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)		☐ Moss Trim Lines (B16)		
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)		☐ Dry-Season Water Table (C2)		
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)		☐ Crayfish Burrows (C8)		
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)		☐ Saturation Visible on Aerial Imagery (C9)		
☐ Iron Deposits (B5)			☐ Stunted or Stressed Plants (D1)		
☐ Inundation Visible on Aerial Imagery (B7)			☐ Geomorphic Position (D2)		
☐ Water-Stained Leaves (B9)			☐ Shallow Aquitard (D3)		
☐ Aquatic Fauna (B13)			☐ Microtopographic Relief (D4)		
			☐ FAC-Neutral Test (D5)		
Field Observations:			Wetland Hydrology Present? Yes ☐ No ☒		
Surface Water Present?	Yes ☐ No ☒	Depth (inches):			
Water Table Present?	Yes ☐ No ☒	Depth (inches):			
Saturation Present?	Yes ☒ No ☐	Depth (inches): 0			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Hydrological indicators not met					

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

 Sampling Point: WET12_U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>50</u></td> <td>x 5 = <u>250</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>450.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.5</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>50</u>	x 5 = <u>250</u>	Column Totals: <u>100</u> (A)	<u>450.00</u> (B)	Prevalence Index = B/A = <u>4.5</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>50</u>	x 5 = <u>250</u>																			
Column Totals: <u>100</u> (A)	<u>450.00</u> (B)																			
Prevalence Index = B/A = <u>4.5</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Setaria adhaerens</u>	<u>50</u>	<u>Y</u>	<u>UPL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Schizachyrium scoparium</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																				

SOIL

Sampling Point: WET12_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 5/3	80	7.5YR 5/8	20			SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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 soils not present

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET13_PEN
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Slope	Local relief (concave, convex, none):	Concave	Slope (%):	0-2
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.942964	Long:	-86.791866
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded	NWI classification:	None		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No	(If no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology significantly disturbed?	Yes ☒	No	Are "Normal Circumstances" present? Yes ☒ No		
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☒	No	Is the Sampled Area within a Wetland?	Yes ☒ No
Hydric Soil Present?	Yes ☒	No		
Wetland Hydrology Present?	Yes ☒	No		
Remarks: Area sampled is wetland				

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☒ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)

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

 Sampling Point: WET13 PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>105</u></td> <td>x 1 = <u>105</u></td> </tr> <tr> <td>FACW species <u>2</u></td> <td>x 2 = <u>4</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>107</u> (A)</td> <td><u>109.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.02</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>105</u>	x 1 = <u>105</u>	FACW species <u>2</u>	x 2 = <u>4</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>107</u> (A)	<u>109.00</u> (B)	Prevalence Index = B/A = <u>1.02</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>105</u>	x 1 = <u>105</u>																			
FACW species <u>2</u>	x 2 = <u>4</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>107</u> (A)	<u>109.00</u> (B)																			
Prevalence Index = B/A = <u>1.02</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. <u>Salix nigra</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Acer saccharinum</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
7.0 =Total Cover																				
50% of total cover: <u>3.5</u> 20% of total cover: <u>1.4</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Typha latifolia</u>	<u>100</u>	<u>Y</u>	<u>OBL</u>	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.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 =Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No ☐																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 =Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET13_PEM

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

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type ¹		
0-6	10YR	5/1	95	7.5YR	4/6	5		SIC	
6-16	10YR	6/1	80	5YR	5/8	20		SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☒ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☒ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 soils present

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site:	Hawesville Site Project	City/County:	Hancock County	Sampling Date:	2026-04-08
Applicant/Owner:	Justified DataPower LLC	State:	Kentucky	Sampling Point:	WET13_U
Investigator(s):	Edward Bolenbaugh, Hayden Alvey-Knapp	Section, Township, Range:			
Landform (hillside, terrace, etc.):	Slope	Local relief (concave, convex, none):	Convex	Slope (%):	0-2
Subregion (LRR or MLRA):	LRR N, MLRA 120A	Lat:	37.942968	Long:	-86.791832
		Datum:	WGS84		
Soil Map Unit Name:	Melvin silt loam, 0 to 2 percent slopes, occasionally flooded	NWI classification:	None		
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒	No ☐	(If no, explain in Remarks.)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present?		Yes ☒	No ☐	
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)				

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

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Area sampled is upland					

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
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VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: WET13 U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>440.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.4</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals: <u>100</u> (A)	<u>440.00</u> (B)	Prevalence Index = B/A = <u>4.4</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>60</u>	x 4 = <u>240</u>																			
UPL species <u>40</u>	x 5 = <u>200</u>																			
Column Totals: <u>100</u> (A)	<u>440.00</u> (B)																			
Prevalence Index = B/A = <u>4.4</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Setaria adhaerens</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	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.																
2. <u>Lolium perenne</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Schizachyrium scoparium</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
4. <u>Viola bicolor</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
5. <u>Prunella vulgaris</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover				Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																				

SOIL

Sampling Point: WET13_U

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

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type ¹		
0-8	10YR	5/3	85	7.5YR	4/6	15		SICL	
8-16	10YR	6/2	90	7.5YR	5/6	10		SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

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)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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 soils not present

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

 Sampling Point: WET14 PEM

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>80</u></td> <td>x 1 = <u>80</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>105.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.24</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>80</u>	x 1 = <u>80</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>85</u> (A)	<u>105.00</u> (B)	Prevalence Index = B/A = <u>1.24</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>80</u>	x 1 = <u>80</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>85</u> (A)	<u>105.00</u> (B)																			
Prevalence Index = B/A = <u>1.24</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☒ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Juncus abortivus</u>	<u>80</u>	<u>Y</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Setaria adhaerens</u>	<u>5</u>	<u>N</u>	<u>UPL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
85.0 = Total Cover																				
50% of total cover: <u>42.5</u> 20% of total cover: <u>17.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is dominant																				

SOIL

Sampling Point: WET14_PEM

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

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)		Color (moist)		%	Type ¹	Loc ²		
0-8	10YR	5/6	70	7.5YR	5/8	30		SIC	
8-12	10YR	6/2	25	7.5YR	4/6	15		C	
8-12	10YR	5/6	60					C	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**
 Type: Hard pack clay
 Depth (inches): 12
Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils present

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

 Sampling Point: WET14 U

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>80</u></td> <td>x 5 = <u>400</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>480.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.8</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>80</u>	x 5 = <u>400</u>	Column Totals: <u>100</u> (A)	<u>480.00</u> (B)	Prevalence Index = B/A = <u>4.8</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>80</u>	x 5 = <u>400</u>																			
Column Totals: <u>100</u> (A)	<u>480.00</u> (B)																			
Prevalence Index = B/A = <u>4.8</u>																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Setaria adhaerens</u>	<u>80</u>	<u>Y</u>	<u>UPL</u>	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.																
2. <u>Schizachyrium scoparium</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
3. <u>Lolium perenne</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100.0 = Total Cover																				
50% of total cover: <u>50.0</u> 20% of total cover: <u>20.0</u>																				
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is not dominant																				

SOIL

Sampling Point: WET14_U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/4	100					SICL	
5-16	10YR 6/2	75	7.5YR 4/6	25			SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

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) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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 soils not present

HABITAT ASSESSMENT FIELD DATA SHEET—LOW GRADIENT STREAMS (FRONT)

STREAM NAME STR01		LOCATION Hawesville Site, Hancock Co. KY	
STATION # _____ RIVERMILE _____		STREAM CLASS Perennial	
LAT 37.953820 LONG -86.793411		RIVER BASIN Ohio River	
STORET # _____		AGENCY _____	
INVESTIGATORS Ralph Schuler, Hayden Alvey-Knapp			
FORM COMPLETED BY _____		DATE 12/09/2025 TIME _____ AM PM	REASON FOR SURVEY Land development

Parameters to be evaluated in sampling reach	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
	1. Epifaunal Substrate/ Available Cover	Greater than 50% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	30-50% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	10-30% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 10% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Pool Substrate Characterization	Mixture of substrate materials, with gravel and firm sand prevalent; root mats and submerged vegetation common.	Mixture of soft sand, mud, or clay; mud may be dominant; some root mats and submerged vegetation present.	All mud or clay or sand bottom; little or no root mat; no submerged vegetation.	Hard-pan clay or bedrock; no root mat or vegetation.
	SCORE 11	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Pool Variability	Even mix of large-shallow, large-deep, small-shallow, small-deep pools present.	Majority of pools large-deep; very few shallow.	Shallow pools much more prevalent than deep pools.	Majority of pools small-shallow or pools absent.
	SCORE 7	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than <20% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 20-50% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 50-80% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 80% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

HABITAT ASSESSMENT FIELD DATA SHEET—LOW GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category			
	Optimal	Suboptimal	Marginal	Poor
6. Channel Alteration Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.	
SCORE <u>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Channel Sinuosity The bends in the stream increase the stream length 3 to 4 times longer than if it was in a straight line. (Note - channel braiding is considered normal in coastal plains and other low-lying areas. This parameter is not easily rated in these areas.)	The bends in the stream increase the stream length 1 to 2 times longer than if it was in a straight line.	The bends in the stream increase the stream length 1 to 2 times longer than if it was in a straight line.	Channel straight; waterway has been channelized for a long distance.	
SCORE <u>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability (score each bank) Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.	
SCORE <u>8</u> (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0
SCORE <u>8</u> (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0
9. Vegetative Protection (score each bank) More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.	
SCORE <u>9</u> (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0
SCORE <u>9</u> (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0
10. Riparian Vegetative Zone Width (score each bank riparian zone) Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.	
SCORE <u>4</u> (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0
SCORE <u>4</u> (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0

Total Score 96

HABITAT ASSESSMENT FIELD DATA SHEET—LOW GRADIENT STREAMS (FRONT)

STREAM NAME STR02		LOCATION Hawesville Site, Hancock Co. KY	
STATION # _____ RIVERMILE _____		STREAM CLASS Perennial	
LAT 37.947153 LONG -86.793046		RIVER BASIN Ohio River	
STORET # _____		AGENCY _____	
INVESTIGATORS Ralph Schuler, Hayden Alvey-Knapp			
FORM COMPLETED BY _____		DATE 12/09/2025 TIME _____ AM PM	REASON FOR SURVEY Land development

Parameters to be evaluated in sampling reach	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
	1. Epifaunal Substrate/ Available Cover	Greater than 50% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	30-50% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	10-30% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 10% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Pool Substrate Characterization	Mixture of substrate materials, with gravel and firm sand prevalent; root mats and submerged vegetation common.	Mixture of soft sand, mud, or clay; mud may be dominant; some root mats and submerged vegetation present.	All mud or clay or sand bottom; little or no root mat; no submerged vegetation.	Hard-pan clay or bedrock; no root mat or vegetation.
	SCORE 11	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Pool Variability	Even mix of large-shallow, large-deep, small-shallow, small-deep pools present.	Majority of pools large-deep; very few shallow.	Shallow pools much more prevalent than deep pools.	Majority of pools small-shallow or pools absent.
	SCORE 7	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than <20% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 20-50% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 50-80% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 80% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

HABITAT ASSESSMENT FIELD DATA SHEET—LOW GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
6. Channel Alteration Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <u>2</u>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Channel Sinuosity The bends in the stream increase the stream length 3 to 4 times longer than if it was in a straight line. (Note - channel braiding is considered normal in coastal plains and other low-lying areas. This parameter is not easily rated in these areas.)						The bends in the stream increase the stream length 1 to 2 times longer than if it was in a straight line.					The bends in the stream increase the stream length 1 to 2 times longer than if it was in a straight line.					Channel straight; waterway has been channelized for a long distance.					
SCORE <u>2</u>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8. Bank Stability (score each bank) Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.						Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
SCORE <u>8</u> (LB)	Left Bank 10 9					8 7 6					5 4 3					2 1 0					
SCORE <u>8</u> (RB)	Right Bank 10 9					8 7 6					5 4 3					2 1 0					
9. Vegetative Protection (score each bank) Note: determine left or right side by facing downstream.	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.					70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>9</u> (LB)	Left Bank 10 9					8 7 6					5 4 3					2 1 0					
SCORE <u>9</u> (RB)	Right Bank 10 9					8 7 6					5 4 3					2 1 0					
10. Riparian Vegetative Zone Width (score each bank riparian zone) Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>4</u> (LB)	Left Bank 10 9					8 7 6					5 4 3					2 1 0					
SCORE <u>4</u> (RB)	Right Bank 10 9					8 7 6					5 4 3					2 1 0					

Total Score 96



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