### AMERICAN TRANSMISSION SYSTEMS, INCORPORATED A FIRSTENERGY COMPANY

### LETTER OF NOTIFICATION

## KNOX-NOTTINGHAM 138 kV TRANSMISSION LINE REBUILD PROJECT KILGORE (POLO ROAD)-WASHINGTON SUB SEGMENT

**OPSB CASE NO.: 24-0646-EL-BLN** 

July 15, 2024

American Transmission Systems, Incorporated 76 South Main Street Akron, Ohio 44308

### LETTER OF NOTIFICATION Knox-Nottingham 138 kV Transmission Line Rebuild Project - Kilgore (Polo Road)-Washington Sub Segment

The following information is being provided in accordance with Chapter 4906-6 of the Ohio Administrative Code for the application and review of Accelerated Certificate Applications. Based upon the requirements found in Appendix A to Adm.Code 4906-1-01, this Project qualifies for submittal to the Ohio Power Siting Board ("Board") as a Letter of Notification application.

#### **4906-6-05: ACCELERATED APPLICATION REQUIREMENTS**

#### 4906-6-05(B)(1): Name and Reference Number

Name of Project:Knox-Nottingham 138 kV Transmission Line Rebuild Project –<br/>Kilgore (Polo Road)-Washington Sub Segment ("Project").

Reference Number: 2031-2

#### 4906-6-05(B)(1): Brief Description of the Project

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, proposes to rebuild the approximate 11.3-mile Kilgore (Polo Road) to Washington Substation segment of the approximately 44-mile Knox-Nottingham 138 kV Transmission Line ("Kilgore (Polo Road)-Washington Substation Segment" or "Project").

The Kilgore (Polo Road)-Washington Substation Segment extends from existing structure 332, the point of interconnection with American Electric Power ("AEP"), to existing structure 2861 (new structure 405), the point of interconnection with Carroll Electric Cooperative. The Project will traverse Perry, Lee, Center and Washington Townships in Carroll County, Ohio. The Project will be comprised of the following:

1. The Project will rebuild the existing wood pole H-frame structures, along the existing centerline, by using a combination of steel structures on concrete foundations or direct embed steel structures.

The existing conductor, 477 kcmil 24/7 ACSR, will be replaced with 795 kcmil 26/7 ACSR.

The general location of the Project is shown in Exhibit 1, a partial copy of the United States Geological Survey, Carroll County. Exhibit 2 is a partial copy of ESRI aerial imagery. A general layout of the Project is shown in Exhibit 3.

In April 2021, representatives of ATSI met with technical and legal Staff of the Ohio Power Siting Board ("OPSB Staff") to discuss ATSI's 64-mile Knox-Nottingham Project, which is divided into two sections: the 44-mile Knox-Nottingham section and the 20-mile Holloway-Nottingham #1 and #2 section. The 44-mile Knox-Nottingham section is, in turn, divided into four segments, resulting in a total of five project segments. As noted below in section 4906-6-05(B)(2), there were several logistical aspects of the rebuild project that contributed to a joint decision between ATSI and OPSB Staff that the Project would be framed in accordance with each segment. Due to restrictions on construction, outage schedules, and the need to minimize service disruptions, the improvements required to fix deteriorating facility conditions cannot be completed in a single project and must be broken into segments. This Project is the 5<sup>th</sup> and final segment to be submitted to the OPSB. The breakdown of project segments is as follows:

- Knox to Washington Segment (Approved and certificated by the OPSB in Case No. 21-0667-EL-BLN)
- Kilgore (Polo Road) New Stacy BUC Segment (Approved and certificated by the OPSB in Case No. 22-0285-EL-BLN)
- Holloway Sub to Nottingham Sub Segment (Approved and certificated by the OPSB in Case No. 23-0141-EL-BLN)
- New Stacy BUC-Nottingham Sub Segment (Approved and certificated by the OPSB in Case No. 23-1013-EL-BLN)

#### 4906-6-05 (B)(1): Letter of Notification Requirement

The Project meets the requirements for a Letter of Notification because the Project is within the types of projects defined by Item (2)(b) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of Adm.Code 4906-1-01. This item states:

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structure, for a distance of:

*(b) More than two miles.* 

The proposed Project is within the requirements of Item (2)(b) as it involves replacing structures and conductor for a distance greater than two miles.

#### <u>4906-6-05 (B)(2): Need for the Project</u>

ATSI needs to rebuild all 64 miles of the Holloway to Knox 138 kV Transmission Line in light of deteriorating facility conditions and the growing amount of maintenance required to maintain the line. The primary benefit of the Project is to enhance system reliability through protection from unplanned outages, and to augment ATSI's operating flexibility as well as system resiliency by replacing deteriorating wood poles and by updating the existing conductor and shield wires. In turn, replacement of these facilities supports future load growth in the area for new and existing customers. Routine line inspections have shown an ever-increasing number of active conditions that require repair, leading to an overall worsened line condition. The most recent transmission line inspection conducted by a third-party contractor in April 2020, found that 57 of 74 structures (approximately

77%) of the Kilgore (Polo Road)-Washington Substation Segment were defective and pose reliability concerns.<sup>1</sup>

Defect Type	Defect Count
Woodpecker Holes	39
Decay	15
Failed Sound Test	3

**Table 1– Pole Inspection Summary** 

Wood poles are considered rejected when defects render a pole unsafe, unreliable, or noncompliant with current code, including the rejection of wood poles when the pole strength has been reduced to 2/3<sup>rd</sup> of the original design strength. This is consistent with the National Electrical Safety Code ("NESC") Table 261-1, note 2, which states: "wood and reinforced structures shall be replaced or rehabilitated when deterioration reduces the structure strength to 2/3 of that required when installed..."

The primary reasons for structure rejection on this Project are damage caused by woodpeckers (a major maintenance concern for all wood poles), failed sound tests, and decay. Woodpecker holes cause structural degradation of varying severity, depending upon where on the structure the damage takes place. The standard maintenance procedures include filling the holes and wrapping the pole in a metal mesh to prevent further damage; however, woodpeckers typically return to a different location on the same pole or go to a different pole and the problem continues. If woodpecker damage occurs near a critical point on the structure, such as the x-brace or crossarm attachment points, the pole must be replaced. Ultimately, woodpeckers may return to cause the same type of damage. The proposed upgrade to steel structures eliminates this recurring maintenance issue.

<sup>&</sup>lt;sup>1</sup> Similar structural problems are present along the entire Holloway-Knox 138 kV Transmission Line. However, as noted above, the improvements required to fix these deteriorating facility conditions cannot be completed in a single project and must be broken into segments, designed to accommodate construction sequencing, outage schedules, and the need to minimize service disruptions.

As part of this Project, ATSI proposes to upgrade the conductor to its standard of 795 kcmil 26/7 ACSR, which will allow for future load growth and generator connections, if any occur, while adding sufficient margins to the transmission system. The new proposed conductors meet FirstEnergy's current standard. Upgrading to the current standard will improve reliability and performance.

Lastly, the shield wires will be replaced with one 7#8 Alumoweld shield wire and one Optical Ground Wire ("OPGW") in the second position. Since 2016, it has been a FirstEnergy practice to include OPGW in one of the static wire positions for any transmission line rebuild project. This enables the modernization of grid protection and control communication between substations.

The need for the entire Knox-Nottingham project was first presented at the August 31, 2018 Subregional Regional Transmission Expansion Plan (SRRTEP) Committee Western meeting. A month later, on September 28, 2018, the proposed solution was presented and was assigned PJM supplemental RTEP number s1718. Since that time, the scope of the overall Project changed, including the rebuild of a portion of the Nottingham-Yager No. 1 138 kV Transmission Line. The Project was re-presented at the September 11, 2020 SRRTEP Committee Western meeting and assigned RTEP number s2389. The PJM SSRTEP-Western presentation slide from the 2020 meeting is included as Exhibit 4 and provides additional details of the project drivers.

#### 4906-6-05(B)(3): Location of the Project Relative to Existing or Proposed Lines

The location of the Project relative to existing or proposed lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2024 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 24-0504-EL-FOR under Rule 4901:5-5:04 (C)(2)(b) of the Ohio Administrative Code. The map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations including the Knox-Nottingham 138 kV Transmission Line. The Project is included on page 38 of the Long-Term Forecast Report

and is a part of the larger Holloway-Nottingham-Knox 138 kV Line Rebuild Project. The general location and layout of the project area is shown in Exhibits 1 and 2.

#### 4906-6-05 (B)(4): Alternatives Considered

Due to the physical condition of the existing transmission line and nature of the Project, there were only two alternatives considered; replacement of only the identified failed structures, or a full rebuild.

#### Alternative 1:

Replace 57 failed wood H-frame structures on the Kilgore (Polo Road)-Washington Substation Segment with wood H-frame structures and re-use the existing conductor and shield wire. Includes construction of approximately 9.23 miles of access roads and restoration after replacement.

#### Alternative 2

Rebuild 11.3 miles of transmission line, consisting of replacing all existing wood pole structures with steel monopoles, replacing conductor with 795 kcmil 26/7 ACSR and replacing the shield wire with 7/8# Alumoweld shield wire and OPGW. Includes construction of approximately 11.2 miles of access roads and restoration after project completion.

Several factors were considered by ATSI in opting to rebuild the entire line rather than continuing to maintain the deteriorating facilities. These factors include:

#### **Existing Wood Pole Condition**

As described above, approximately 77% of the wood poles along the Kilgore (Polo Road)-Washington Substation Segment have physical damage and/or signs of deterioration. This percentage will only increase over time, resulting in multiple returns by maintenance and repair crews, increased impacts, and greater costs. Replacing all the wood poles with steel structures eliminates damage caused by woodpeckers, reduces maintenance, and extends the life of the facilities.

#### **Conductor Replacement and Upgrade**

ATSI proposes to replace and upgrade the conductor to ATSI's current standard of 795 kcmil 26/7 ACSR as part of the Project. As stated above, this upgrade would not be completed under the Alternative 1 scenario. Not only would replacement of the conductor upgrade the conductor to current standards, but replacement would also increase the line rating to 275 MVA (Summer Normal). The upgrade will improve reliability and performance, as well as support future load growth in the area. Replacing the conductor as part of this Project also eliminates the need for a complete reconductor project in the coming years, as the conductor is aging along with the rest of the facilities.

#### **Communications**

Although outside the scope of this application, this Project will also facilitate ATSI's replacing the existing shield wire with one 7#8 Alumoweld shield wire and one OPGW. With the addition of OPGW in the proposed Project, ATSI is able to modernize grid protection and control communications between substations. Because the installation method is identical to traditional shield wire, the cost per mile of adding OPGW is negligible compared to the return on the investment from a reliability and communications perspective. If pole replacement is completed under a maintenance approach, OPGW would not be installed, and a separate alternative fiber route may be required to meet communication enhancement needs.

#### Land Use and Sensitive Areas

As referenced above, the land use in the area of the Project is primarily rural residential, agricultural, and mining. Disruption to landowners and/or operators will be minimized pursuant to the proposed Project, as opposed to the multiple number of access times that would be necessary under the maintenance alternative. In cases where crops are planted, multiple access increases the potential for crop damage and payment for associated crop losses.

The United States Fish and Wildlife Service ("USFWS") and the Ohio Department of Natural Resources ("ODNR") identified the state and federally listed species that may

potentially be affected by the Project. Seasonal restrictions, along with avoidance and minimization measures, were identified to reduce impacts to these species.

Overall land-use impacts, including, but not limited to, crop and other environmental features, increase with multiple mobilizations as compared to a single construction project, as proposed. These impacts, along with the installation of barriers or matting and adhering to seasonal restrictions, lead to increased costs and complicate construction sequencing and outage coordination.

#### Safe and Reliable Service

ATSI has a duty to provide safe and reliable service to its customers and the condition of the Kilgore (Polo Road)-Washington Substation Segment presents a significant risk to ATSI's ability to meet this obligation. The Kilgore (Polo Road)-Washington Substation Segment serves multiple delivery points, including AEP's Kilgore (Polo Road) Substation and Carroll Electric Cooperative's Washington Substation. Should this section of line fail, customers served from the Kilgore (Polo Road) and Washington Substations would be out of service.

The best approach is, therefore, to completely rebuild the Kilgore (Polo Road)-Washington Substation Segment. ATSI believes that the rebuild project is the most costeffective and least impactful approach to ensure ATSI's ability to continue to provide safe and reliable service to its customers.

#### 4906-6-05(B)(5): Public Information Program

ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Project as necessary. ATSI will maintain a copy of this Letter of Notification, along with other Project information, on FirstEnergy's website: https://www.firstenergycorp.com/about/transmission\_projects/ohio.html.

ATSI will publish notice of the Project in the Harrison News Herald within 7 days of filing this Letter of Notification application. The notice will comply with Adm.Code 4906-6-08(A)(1)-(6). In addition to the public notice, ATSI will mail letters in accordance with Adm.Code 4906-6-08(B) explaining the Project to affected landowners and tenants

and informing them of the Project's anticipated construction and restoration activities sequencing, including the start date and overall time frame.

During all phases of this Project, the public may contact ATSI through the transmission projects hotline at 1-888-311-4737 or via email at:

transmissionprojects@firstenergycorp.com.

#### 4906-6-05(B)(6): Construction Schedule

The construction schedule for this Project is expected to begin as early as October 2024 and is proposed to be completed/in-service by May 2025.

#### 4906-6-05(B)(7): Area Map

Exhibit 1 depicts the general location of the Project. Exhibit 2 provides a partial copy of ESRI aerial imagery of the Project area.

#### 4906-6-05(B)(8): Property Owner List

The Project is located on existing right-of-way. New temporary access rights may be required as part of the Project. Exhibit 5 contains a list of properties affected by the Project. As indicated in Exhibit 5, the Project is within existing right-of-way. Additional access rights will be acquired, if necessary.

#### 4906-6-05(B)(9): TECHNICAL FEATURES OF THE PROJECT

#### 4906-6-05(B)(9)(a): Operating Characteristics

The transmission line construction will have the following characteristics:

Voltage:	138 kV
Conductors:	795 kcmil 26/7 ACSR
Static Wire:	OPGW and 7#8 Alumoweld
Insulators:	Polymer and/or Porcelain
ROW Width:	150 feet (100-foot cleared corridor)
Land Requirements:	Access Rights

Structure Types: Exhibit 6: 138 kV Single Circuit Steel Pole, Suspension (approximately 47 Structures)

Exhibit 7: 138 kV Single Circuit Steel Pole, Deadend (approximately 10 Structures)

Exhibit 8: 138 kV Single Circuit Steel Pole, Strain (approximately 6 Structures)

Exhibit 9: 138 kV Single Circuit Steel H-frame, Strain (approximately 8 Structures)

Exhibit 10: 138 kV Single Circuit Steel Pole, Switch (approximately 2 Structures)

Exhibit 11: 138 kV Single Circuit Steel Pole, Tap (approximately 1 Structure)

#### 4906-6-05(B)(9)(b): Electric and Magnetic Fields

As there are occupied residences or institutions within 150 feet from the existing transmission line centerline, Electric and Magnetic Field ("EMF") calculations are required by this code provision.

#### 4906-6-05(B)(9)(b)(i): Calculated Electric and Magnetic Fields Strength Levels

The Project is an approximately 11.3-mile single circuit 138kV transmission line located on 150-foot rights-of-way that does not share the right-of-way with any other transmission lines.

Table 1 itemizes the line loading of the Project. The normal line loading represents FirstEnergy's peak system load for the transmission line. The emergency line loading represents the maximum line loading under contingency operation. The winter rating is based on the continuous maximum conductor rating ("MCR") of the circuit for the single conductors per phase and an ambient temperature of zero degrees centigrade (32 °F), wind speed of 1.3 miles per hour, and a circuit design operating temperature of 100 °C (212 °F).

Line Name	Normal	Emergency	Winter Rating
	Loading Amps	Loading Amps	Amps
Knox-Nottingham 138 kV Transmission Line	232	285	1192

**Table 1: Transmission Line Loading** 

Table 2 provides an approximation of the magnetic and electric fields strengths of the Knox-Nottingham 138 kV Transmission Line between tangent-to-tangent structures with conductors installed on suspension insulators. The calculations provide an approximation of the electric and magnetic fields levels based on specific assumptions utilizing the EPRI EMF Workstation 2015 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for the transmission circuit. The model utilizes the normal, emergency, and winter rating of the transmission line.

Knox-Nottingham 138 kV Transmission Line Tangent to Tangent Structures with Conductors Installed on Suspension Insulators, 150-foot ROW		Electric Field kV/m	Magnetic Field mG
Normal	Under Lowest Conductors	0.397	10.22
Loading	At Right-of-Way Edges	0.166 / 0.20	4.0 / 4.42
Emergency Loading	Under Lowest Conductors	0.397	12.56
	At Right-of-Way Edges	0.166 / 0.20	4.92 / 5.35
Winter Rating	Under Lowest Conductors	0.397	52.53
	At Right-of-Way Edges	0.166 / 0.20	20.57 / 23.20

Table 2: EMF Calculations for Knox-Nottingham 138 kV Transmission LineTangent to Tangent Structures with Conductors Installed on Suspension Insulators

Table 3 provides an approximation of the magnetic and electric fields strengths of the Knox-Nottingham 138 kV Transmission Line between tangent-to-tangent structures with conductors installed on suspension and strain insulators. The calculations provide an approximation of the electric and magnetic fields levels based on specific assumptions

utilizing the EPRI EMF Workstation 2015 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for the transmission circuit. The model utilizes the normal, emergency, and winter rating of the transmission line.

Table 3: EMF Calculations for Knox-Nottingham 138 kV Transmission LineTangent to Tangent Structures with Conductors Installed on Suspension and StrainInsulators

Knox-Nottingham 138 kV Transmission Line Tangent to Tangent Structures with Conductors Installed on Suspension and Strain Insulators, 150-foot ROW		Electric Field kV/m	Magnetic Field mG
Normal	Under Lowest Conductors	0.476	13.21
Loading	At Right-of-Way Edges	0.188 / 0.24	4.76 / 5.18
Emergency Loading	Under Lowest Conductors	0.476	16.23
	At Right-of-Way Edges	0.188 / 0.24	5.84 / 6.67
Winter Rating	Under Lowest Conductors	0.476	67.89
	At Right-of-Way Edges	0.188 / 0.24	24.44 / 26.65

#### 4906-6-05(B)(9)(b)(ii): Alternative Design Consideration for Electric and Magnetic Fields

The strength of EMFs can potentially be reduced by installing the transmission line conductors in a compact configuration by selecting conductor phasing that reduces the field strengths. ATSI designs its facilities according to the requirements of the NESC. The pole heights and configuration were chosen based on NESC specifications, engineering parameters, and cost. In this Project ATSI proposes to install 138 kV transmission lines primarily on single-circuit steel pole tangent structures with conductors supported on suspension and strain insulators.

#### 4906-6-05(B)(9)(c): Estimated Cost

The estimated capital cost for the proposed Project is approximately \$25,992,000. Although not statutorily required for approval, but at the request of OPSB Staff, ATSI

confirms that ATSI's costs will be captured and allocated via FERC formula rates for the ATSI Transmission Zone, Attachment H-21 in the PJM OATT.

### <u>4906-6-05(B)(10): SOCIAL AND ECOLOGICAL IMPACTS</u> <u>4906-6-05(B)(10)(a): Land Uses</u>

The Project is located in Perry, Lee, Center and Washington Townships, Carroll, Ohio. The land uses in the area of the Project are primarily rural residential, agricultural, and mining.

#### 4906-6-05(B)(10)(b): Agricultural Land

Although the Project crosses lands used for agricultural purposes, there are no parcels listed as agricultural district land (see Exhibit 5).

#### 4906-6-05(B)(10)(c): Archaeological or Cultural Resources

As part of the investigation for this Letter of Notification, Jacobs Engineering Group Inc. (Jacobs) submitted a request to the Ohio Historic Preservation Office ("SHPO") on behalf of ATSI to review and provide comments on the larger Holloway-Knox 138kV Transmission Line Project in August 2020. On September 16, 2020, SHPO replied to the request, and the response is attached as Exhibit 12. SHPO concurred that the Project, as proposed, will not affect any historic properties. No further coordination is required unless the scope of work changes or archaeological deposits are discovered during the course of construction.

Due to periodic updates to the SHPO database, additional review of the available records was necessary. The SHPO database includes all Ohio listings on the National Register of Historic Places ("NRHP"), including districts, sites, building, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. An updated review of the records available through the SHPO database was performed on May 14, 2024.

The SHPO database also includes the Ohio Historic Inventory ("OHI"), the Ohio Archaeological Inventory ("OAI"), previous cultural resource surveys, and the Ohio Genealogical Society ("OGS") cemetery inventory. Sixteen (16) Ohio Historical Inventory (OHI)-listed resources, three (3) Ohio Genealogical Society (OGS)-listed cemeteries, and thirteen (13) Ohio Archaeological Inventory (OAI)-listed archaeological sites were identified within one mile of the Project. Additionally, twenty (20) previous archaeological investigations have been documented within one mile of the Project. Of the total thirty-two (32) cultural resources inventoried within the Project study area, none are located within the Project ROW.

The sixteen (16) OHI-listed resources within one mile of the Project include ten (10) single-family dwellings, two (2) agricultural resources, three (3) vacant buildings, and one funerary site. None of the above-ground resources are within the Project ROW. The closest OHI-listed above-ground resource is CAR0032313, also known as the Brandt House, located approximately 0.10 miles from the project area. The resource is not located next to any existing pole locations and no adverse effect on the Brandt House is expected. The sixteen OHI-listed resources are listed in Table 4.

ID Num	Resource Name	Style	Style Use		Distance from Project
CAR0001713	Swager House	Vernacular	Single Dwelling	1845	0.66 miles
CAR001913	Hearn House	Greek Revival	Single Dwelling	1830	0.51 miles
CAR0019906	E. Tyler Flannery House	Greek Revival	Single Dwelling	1840	0.25 miles
CAR0023510		Greek Revival	Single Dwelling	1840	0.77 miles
CAR0025111	Long House	Italianate	Single Dwelling	1880	0.20 miles
CAR0032113		Queen Anne	Single Dwelling	1870	0.24 miles
CAR0032313	Brandt House	Italianate	Single Dwelling	1892	0.10 miles
CAR0034214	H Cogsill House	Greek Revival	Single Dwelling	1845	0.56 miles
CAR0034313	H Cogsill Outbuilidng	Gothic Revival	Barn	1890	0.51 miles
CAR0051013	Kisamore Barn	Vernacular	Barn	1840	0.26 miles

Table 4. OHI-Listed Resources within the Phase 2 Study Area

CAR0051413	M Amos House	Not discernable	Vacant	1840	0.83 miles
CAR0051911	Vernon Cogsil House	Vernacular	Vacant	1845	0.68 miles
CAR0052213	Walters Deep Mines	Vernacular	Vacant	1920	0.51 miles
CAR0072611	Dobrijevic Farm	Colonial Revival	Single Dwelling	1875	0.31 miles
CAR0074907	Stuller Cemetery	Other	Funerary	1849	0.66 miles
CAR0076006	Larry & Marilyn Wagner House	Vernacular	Single Dwelling	1946	0.98 miles
Source: Ohio Historic Preservation Office 2024					

The thirteen (13) OAI-listed archaeological sites within one mile of the Project include six (5) prehistoric era, seven (7) historic era sites, and one (1) multicomponent site. None of the archaeological sites are within the Project ROW. The closest site to the ROW is site CA0449, a multicomponent site of unknown temporal period approximately 323 feet east of the ROW. The site CA0449s NRHP status is currently unknown and will not be affected by the Project. The thirteen OAI-listed archaeological sites are listed in Table 5.

Table 5. OAI-listed Archaeological Sites within the Phase 2 Study Area

Site Number	Site Name	Cultural Affiliation	Site Type	Distance from Project	
CA0021	N/A	Prehistoric	Unknown	0.43 miles	
CA0044	N/A	Historic	19th-20th century	0.76 miles	
CA0045	N/A	Prehistoric	Unknown	0.60 miles	
CA0046	N/A	Historic	Unknown	0.44 miles	
CA0047	N/A	Historic	Residential	0.82 miles	
CA0060	N/A	Prehistoric	Unknown	0.60 miles	
CA0297	N/A	Historic	Residential	0.10 miles	
CA0412	N/A	Prehistoric	Unknown	0.27 miles	
CA0413	N/A	Historic	Residential	0.37 miles	
CA0419	N/A	Historic	Residential	0.31 miles	
CA0445	N/A	Historic	Subsistence	0.68 miles	
CA0449	N/A	Prehistoric and Historic	Unknown	323 feet	
CA0453	N/A	Prehistoric	Unknown	0.59 miles	
Source: Ohio Historic Preservation Office 2024					

None of the three (3) OGS cemeteries, Arabia-(Arabian) Cemetery (1454), Lee Cemetery (1428), and Stoller-(Stuller) Cemetery (1473), are located within the Project ROW. The closest resource to the ROW is Stoller-(Stuller) Cemetery (1473) located on a private driveway, off Highway 44. The cemetery is approximately 0.70 miles northwest of the ROW and will not be affected by the Project.

Three (3) of the twenty (20) previous archaeological surveys intersect the Project ROW. The two surveys consist of a 1999 investigation in support of a proposed strip mine area project, and two 2021 investigations in support of the Carrollton-Gable 138 kV Line Rebuild Project. The previous cultural resource surveys are listed in Table 6.

Report No.	Author(s)	Title
N/A	Baker, Stanley W. et al	An Archaeological Assessment of Car-39- 16.81/17.18, Two Bridge Replacements, in Center Township, Carroll County, Ohio. (P.F. 1415)
N/A	McDaniel, Gary & Shaune M. Skinner	Phase I and II Cultural Resource Survey: Proposed Regal Strip Mining Tract, Perry Township, Carroll County, Ohio (Permit Application #D-0682-2)
N/A	Murphy, James L.	A Phase I and Phase II Archaeological Survey of a Proposed Strip Mining Project Area in Lee Township, Carroll County, Ohio
N/A	Murphy, James L.	A Phase I Archaeological Survey of a Proposed Strip Mine Area in Lee and Perry Townships, Carroll County, Ohio
N/A	Beamer, Herb & Bryan Lee	Literature Review and Archaeological Survey for Portions of the Regal Mining, Inc. Mining Permit #1243 in Perry Township, Carroll County, Ohio
N/A	Murphy, James L.	A Phase I and Phase II Archaeological Survey of a Proposed Strip Mine Area in Lee Township, Carroll County, Ohio, Permit Application No. D-0749-1
N/A	McDaniel, Gary & John R. Wright	Phase I and II Cultural Resource Survey: Proposed Regal Mining Strip Mining Tract, Perry, Union and Lee Townships, Carroll County, Ohio (Permit Application #D-0628-4)
N/A	Murphy, James L.	A Phase I Archaeological Survey of a Portion of a Proposed Strip Mine Area in Lee Township, Carroll County, Ohio, Permit Application No. D-1035-1

Table 6. Previous Cultural Resources Surveys within the Phase 2 Study Area

Report No.	Author(s)	Title
N/A	Murphy, James L.	A Phase I Archaeological Survey of a Proposed Strip Mine Area in Perry Township, Carroll County, Ohio. Permit Application No. 1441.
N/A	Keener, Craig S.	Phase I Cultural Resource Management Survey of a Proposed 41.6 ha (102.8 a.) Permit Application, #D- 2014-2, in Lee and Union Townships, Carroll County, Ohio
N/A	Keener, Craig S.	Phase I Cultural Resource Management Survey of a Proposed Cell Tower (CLE-634-Stemples East) in Washington Township, Carroll County, Ohio
N/A	Keener, Craig S.	Phase I Cultural Resource Management Survey of a Proposed Cell Tower (CLE-633-Eckley South) in Washington Township, Carroll County, Ohio
2013CAR24620	Jacoby, Robert	Phase I Archaeological Survey for Carroll County Energy, Washington Township, Carroll County, Ohio
2013CAR24620	Marshall, Sydne & Rob Jacoby	Phase I Archaeological Survey for (93 acres) Carroll County Energy, Washington Township, Carroll County, Ohio
2015CAR30337	Weller, Ryan J. & Chris Nelson	Phase I Cultural Resource Management Survey for the Proposed Kilgore Carroll OH Wireless Cellular Tower in Perry Township, Carroll County, Ohio
2015CAR30929	Gullett, Catherine & Brown, Joel	Phase I Archaeological Survey for Eckley CNTN- 139 Wireless Cellular Tower in the Village of Carrollton, (Washington Township), Carroll County, Ohio (CTL#145810952 COLa; EnSite No. 22568)
2015CAR33705	Jackson, Ryan L.	Phase I Archaeological Survey McClure Well Pad Project, Center Township, Carroll County, Ohio
2016CAR36380	Meyer-Landis, Elaine & Brown, Joel	Phase I Archaeological Survey for the STC338-OH Eckley / CLTN-139 / Moore Wireless Cellular Tower in Washington Township, Carroll County, Ohio (CTL# 16510215COLa)
2020CAR49361	Weller, Ryan J.	Phase I Archaeological Investigations for 46.8 km (29.1 mi) Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio
2020CAR49361	Weller, Ryan J.	Addendum Archaeological Investigations for 46.8 km (29.1 mi) Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio

Based upon this updated review, the Project will not impact any historic properties. Because the Project will rebuild an existing transmission line, no increases to the line's visibility are anticipated. Consequently, Jacobs recommends that no further archaeological investigations are necessary.

### <u>4906-6-05(B)(10)(d): Construction Filings with Local, State and Federal Governmental</u> Agencies

Table 7 shows the list of government agency requirements for the Project.

Governmental Agency	Documents
Ohio Environmental	General NPDES Construction Storm Water Permit
Protection Agency (OEPA)	OHC000006
Carroll County Soil and	Storm Water Pollution Prevention Plan (SWP3) – Review
Water Conservation District	Application
Carroll County Emergency	Floodplain Development Paview
Management Agency	Ploodplain Development Review
Ohio Department of	
Transportation; Carroll	Driveway Entrance Permits (MR 505, Driveway Permit for
County; Center, Lee, and	Construction within the County Right-of-Way Limits)
Perry Townships	
Carroll County; Center, Lee,	Special Hauling Permit and Road Use Maintenance
and Perry Townships	Agreement (RUMA)
Ohio Environmental	General NPDES Construction Storm Water Permit
Protection Agency (OEPA)	OHC000006
Carroll County Soil and	Storm Water Pollution Prevention Plan (SWP3) – Review
Water Conservation District	Application

#### Table 7. List of Government Agency Requirements.

#### 4906-6-05 (B)(10)(e): Endangered, Threatened, and Rare Species Investigation

As part of the investigation, ATSI retained Jacobs to conduct necessary surveys. Jacobs submitted a request to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate to conduct an Environmental Review. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife's Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project Study Area. The ODNR's Office of Real

Estate's response on February 7, 2023, stated that there are two (2) state endangered species, three (3) state threatened species, two (2) state species of concern and a mussel bed within a one (1) mile radius of the Project area. Additionally, within range of the project area, there are: one (1) state and federally endangered species; one (1) state endangered and federally threatened species; one (1) state endangered and federal species of concern; six (6) state endangered species; and three (3) state threated species. A copy of ODNR's response is included as Exhibit 13.

As part of the investigation, Jacobs also submitted a request to the U.S. Fish and Wildlife Service ("USFWS") for an Ecological Review to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project area. A copy of USFWS's Ecological Review response, dated January 26, 2023, is included as Exhibit 14. The response indicated the federal and state endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*) are within the range of the Project. A list of all endangered species, threatened species and species of concern identified by ODNR and USFWS is provided in Table 8.

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat		
Mammals						
Indiana bat	Myotis sodalis	Endangered	Endangered	Trees and forests		
Northern long-eared bat	Myotis septentrionalis	Threatened	Endangered	Trees and forests		
Little brown bat	Myotis lucifugus	NA	Endangered	Trees and forests		
Tricolored bat	Perimyotis subflavus	NA	Endangered	Trees and forests		
Birds						
Upland sandpiper	Bartramia longicauda	NA	Endangered	Grasslands		
Northern harrier	Circus cyaneus	NA	Endangered	Marshes and grasslands		
Sharp-shinned hawk	Accipiter striatus	NA	Species of Concern	Forests and agricultural		

Table 8. List of Endangered, Threatened, and Rare Species

Barn owl	Tyto alba	NA	Threatened	Forests and agricultural
Amphibians				
Eastern hellbender	Cryptobranchus alleganiensis	Species of Concern	Endangered	Streams
Mussels				
Butterfly	Ellipsaria lineolata	NA	Endangered	Streams
Slippershell mussel	Alasmidonta viridis	NA	Threatened	Streams
Creek heelsplitter	Lasmigona compressa	NA	Species of Concern	Streams
Fish				
Western banded killifish	Fundulus diaphanus menona	NA	Endangered	Streams
Channel darter	Percina copelandi	NA	Threatened	Streams
Paddlefish	Polyodon spathula	NA	Threatened	Streams
River darter	Percina shumardi	NA	Threatened	Streams
Plants				
Drummond's aster	Symphyotrichum drummondii	NA	Threatened	Forest openings

The response from ODNR and USFWS indicated the Project is within range of: the federal and state endangered Indiana bat (Myotis sodalis); the federal and state endangered northern long-eared bat (Myotis septentrionalis); the federal and state endangered little brown bat (*Myotis lucifugus*); and the state endangered tricolored bat (*Perimyotis subflavus*). Project construction will primarily occur within the existing 100-foot-wide ROW; however, minor tree clearing may be necessary for portions of the Project. Trees adjacent to the existing ROW that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. ATSI will utilize existing access roads and non-forested areas for any proposed access roads for the Project. Minor tree limb trimming may be needed along existing access roads in order to widen the access to the appropriate width required for construction equipment. To mitigate any potential bat roosting habitat impacts, any tree

clearing needed for the Project will occur between October 1st and March 31st to minimize impacts to these species. Therefore, no adverse effect to these bat species is anticipated.

Jacobs conducted a desktop habitat assessment to determine if there are potential hibernacula present within 0.25-mile the Project area. Jacobs followed the current USFWS "Range-wide Indiana Bat Survey Guidelines" when conducting this assessment and utilized data obtained from the ODNR Mines of Ohio Viewer, ODNR geologic maps, topographic maps, and aerial photographs. During the desktop analysis, no potential karst features were identified within 0.25-mile of the Project area. Two locations of abandoned mines (where the mine point extent was unknown) were noted within 0.25 miles of the Project area, located east of Pomona Road in the southern portion of the Project. During the May 2024 field survey of this area, Jacobs' biologist noted that the area was a scrubshrub covered hillside and did not observe any signs of former mine openings. In addition to the field survey, coordination with ODNR and USFWS did not identify any known bat hibernacula within a one-mile radius of the Project. Based on the desktop habitat review and the results of the field survey, it does not appear likely that any potential hibernacula exist within 0.25-mile of the Project area.

The response from ODNR indicated the Project is within range of the northern harrier (*Circus cyaneus*), a state endangered bird. Impacts to large marshes and grasslands should be avoided during the nesting period of April 15th to July 31st.

The response from ODNR indicated the Project is within range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Impacts to dry grasslands, including native grasslands, seeded grasslands, hayfields, and grazed and un-grazed pastures, should be avoided during the nesting period of April 15th to July 31st.

The response from ODNR indicated the Sharp-shinned hawk (Accipiter striatus), a state species of concern bird, and the barn owl (Tyto alba), a state threatened bird, have been

observed within one-mile of the Project area. No sightings or nests of these species were observed during the environmental surveys of the Project.

The response from ODNR indicated the Project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis*), a state endangered salamander and federal species of concern. No impact to this species is expected due to the Project's location and no in-stream work is proposed.

The response from ODNR indicated the Project is within the range of three state-listed mussels: the butterfly (*Ellipsaria lineolata*, state endangered); slippershell mussel (*Alasmidonta viridis*, state threatened); and creek heelsplitter (*Lasmigona compressa*, state species of concern). No impacts to these species are expected due to the Project's location and because no in-stream work is proposed.

The response from ODNR indicated the Project is within the range of four state-listed fish: the western banded killifish (*Fundulus diaphanus menona*, state endangered); channel darter (*Percina copelandi*, state threatened); paddlefish (*Polyodon spathula*, state threatened); and river darter (*Percina shumardi*, state threatened). No impacts to these species are expected because no in-stream work is proposed.

At the time of the field surveys, Jacobs' biologists documented land use and general habitats along the Project area. Based on ODNR-DOW guidance and the field survey, the majority of the Project area is agricultural land or maintained ROW areas surrounded by woodlot, which are not considered suitable habitat for the northern harrier or upland sandpiper. However, several portions of the Project do contain hayfields identified as potentially suitable habitat for these grassland nesting bird species. This habitat assessment, provided to the ODNR in follow-up correspondence, received concurrence on July 11, 2024, that the avoidance/minimization measures as proposed are sufficient in minimizing impacts to listed species, including birds and bats for the Project and is included as Exhibit 13A.

ATSI confirms that the installation of the access roads and work pads within any identified grassland habitat areas will take place outside of the corresponding seasonal nesting restrictions. If construction would be needed within the seasonal restricted months, ATSI has indicated that timber matting would be installed along these areas before April 15<sup>th</sup>, 2025, to avoid impacts to these potential nesting bird species by inhibiting nesting within those work areas.

Jacobs will be submitting a follow up letter to ODNR addressing comments regarding the Project. Jacobs is presently mapping the various habitats within the Project's disturbance area to identify any areas of concern relating to the above-listed species. Coordination with ODNR will continue to evaluate appropriate avoidance and minimization measures, including, but not limited to, sequencing construction activities to address seasonal restrictions to reduce potential impacts.

#### 4906-6-05(B)(10)(f): Areas of Ecological Concern

Jacobs conducted a wetland and stream delineation for this Project in April and May 2024, as shown in Exhibit 15. The environmental survey boundary ("ESB") consists of approximately 11.5-miles of existing transmission line corridor, access roads, and work areas. The Project is located in Carroll County starting north of Cobbler Road NE (40.622370, -81.042573), and extending south to its terminus located north of Pomona Road (40.456873, -81.049261).

A total of 26 wetlands, 35 streams and five ponds were delineated within the Project's ESB. The 26 wetlands, totaling 5.10 acres within the ESB, were all identified as Palustrine Emergent ("PEM") wetlands. Of the 26 wetlands, 17 wetlands were identified as Category 1 wetlands, and nine wetlands were identified as Category 2 wetlands. No Category 3 wetlands were identified within the ESB. Thirty-five streams, totaling 5,175 linear feet identified within the Project ESB, include 13 ephemeral streams, 13 intermittent streams, and nine perennial streams. Thirty streams were assessed using the Headwater Habitat Evaluation ("HHEI") methodology (drainage area less than one square mile) and five streams were assessed using the Qualitative Habitat Evaluation Index ("QHEI")

methodology (drainage area greater than one square mile). Additionally, five ponds were identified within the Project ESB that totaled 0.81 acres.

Through the initial design phase, ATSI avoided the placement of structures and access roads within wetlands to the extent practical. No proposed structures will be placed within wetlands along the Project; therefore, no permanent impacts to wetlands are anticipated. There are 9 unavoidable PEM wetlands that will be temporarily disturbed by access roads and/or work pads. In these areas, a total of approximately 0.89 acre of wetlands will be temporarily disturbed during construction by the installation of timber matting for access road crossings and work pads. Temporarily disturbed wetland areas will be restored to pre-construction contours and the site will be stabilized and seeded after construction as needed. All streams will be crossed above the ordinary high-water mark to avoid impacts and no in-stream work is proposed for the Project. Additionally, ATSI will utilize best management practices to avoid any indirect impact to streams and wetlands through its use of erosion and sediment controls. Streams will either be avoided or bridged (no work below the ordinary high-water mark), and wetlands will be traversed using low ground pressure equipment and/or matted through.

Additionally, a review of the online FEMA Flood Insurance Rate Mapping was performed. Some Project work limits in Carroll County are located within a regulated floodplain. Jacobs will consult with Carroll County Floodplain Administrator for floodplain development review if required.

#### 4906-6-05(B)(10)(g): Other Information

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the NESC as adopted by the PUCO and will meet all applicable safety standards established by the Occupational Safety and Health Administration.

No other or unusual conditions are expected that will result in significant environmental, social, health or safety impacts.

### <u>4906-6-07: Documentation of Letter of Notification Transmittal and Availability for Public</u> <u>Review</u>

ATSI is providing this Letter of Notification to the following officials concurrently with its docketing with the Board:

#### **Carroll County**

Donald E. Leggett II Carroll County Commissioner 119 S. Lisbon St., Suite 201 Carrollton, Ohio 44615 Emaildleggett@carrollcountyohio.us

Christopher R. Modranski Carroll County Commissioner 119 S. Lisbon St., Suite 201 Carrollton, Ohio 44615 Email: cmodranski@carrollcountyohio.us

Robert E. Wirkner Carroll County Commissioner 119 S. Lisbon St., Suite 201 Carrollton, Ohio 44615 Email: rwirkner@carrollcountyohio.us

#### Perry Township

Calvin Logan Perry Township Trustee 154 Amsterdam Rd. SW Scio, Ohio 43988

Paul Rich Perry Township Trustee 154 Amsterdam Rd. SW Scio, Ohio 43988 Brian J. Wise, P.E., P.S. Carroll County Engineer 200 Kensington Road N.E. Carrollton, Ohio 44615 Email: bwise@carrollcountyohio.us

Mr. Tom Konst, Director Carroll County Regional Planning Commission 119 South Lisbon Street, Suite 201 Carrollton, OH 44615 Email: tkonst@carrollcountyohio.us

Ms. Amanda Tubaugh, District Admin. Carroll County Soil & Water District 1029 Countryside Dr. NW Carrollton, Ohio 44615 Email: amanda.tubaugh@carrollswcd.org

Gary Staten Perry Township Trustee 154 Amsterdam Rd. SW Scio, Ohio 43988

Jessica Ujcich Perry Township Fiscal Officer 154 Amsterdam Rd. SW Scio, Ohio 43988 Email: perrytwpfo@gmail.com

#### Lee Township

Charles Knox Lee Township Trustee 3160 Apollo Rd. SE Carrollton, Ohio 44615

Dale Tinlin Lee Township Trustee 3160 Apollo Rd. SE Carrollton, Ohio 44615

#### **Center Township**

Beau Brace Center Township Trustee 419 4th St. SE Carrollton, Ohio 44615

Matt Manfull Center Township Trustee 419 4th St. SE Carrollton, Ohio 44615

#### Washington Township

Darrell Shafer Washington Township Trustee 3097 Cobbler Rd. NE Carrollton, Ohio 44615 Email: shaferdarrell@yahoo.com

Rodney Days Washington Township Trustee 3097 Cobbler Rd. NE Carrollton, Ohio 44615 Karl Moore Lee Township Trustee 3160 Apollo Rd. SE Carrollton, Ohio 44615

Nancy Knox Lee Township Fiscal Officer 3160 Apollo Rd. SE Carrollton, Ohio 44615 Email: Nknox14@yahoo.com

Tom Fry Center Township Trustee 419 4th St. SE Carrollton, Ohio 44615

Carolyn Leggett Center Township Fiscal Officer 419 4th St. SE Carrollton, Ohio 44615 Email: cleggettcentertwp20@gmail.com

Zachary Campbell Washington Township Trustee 3097 Cobbler Rd. NE Carrollton, Ohio 44615

Connie Days Washington Township Fiscal Officer 3097 Cobbler Rd. NE Carrollton, Ohio 44615 Email: washclerk@aol.com

#### <u>Library</u>

Ms. Ellen Finnicum, Director Carroll County District Library 70 2nd Street Northeast Carrollton, OH 44615 Email: info@carrolllibrary.org

Copies of the transmittal letters to these officials have been included with this application as proof of compliance under Adm.Code 4906-6-07(B) to provide the Board with proof of notice to local officials as required by Adm.Code 4906-6-07(A)(1) and to libraries per Adm.Code 4906-6-07(A)(2).

Information is posted at: www.firstenergycorp.com/about/transmission\_project/ohio.html on how to request an electronic or paper copy of this Letter of Notification application. The link to this website is being provided to meet the requirements of Adm.Code 4906-6-07(B) and to provide the Board with proof of compliance with the notice requirements in Adm.Code 4906-6-07(A)(3).









MING RD

2862 COBELER RD

Carroll EC Washington

BUTTER CUP RD

# CARROLL COUNTY

MOUNERD

MAYHAM RD

AVONCREST RD















PAPER SIZE: 11X8.5

### **EXHIBIT 4**

## Previously Presented: 8/31/2018 SRRTEP

Problem Statement (Scope and Need/Drivers)

Equipment Material Condition, Performance and Risk

- Improve system reliability ad performance
- Remove obsolete and deteriorated equipment
  - 53 to 82 year old construction
  - -57%-83% inspection rejection rate
  - Approximately 29 repair records over the past 3 years; increasing trend
  - 529 active repair conditions; negative increase in maintenance findings
- Upgrade to current standards
- Support shale gas load growth area; multiple (6) transmission service connections

#### Potential Solution:

### Holloway-Nottingham-Knox 138 kV Line Rebuild (s1718)

- Rebuild the existing Knox-Nottingham 138 kV Line (Approximately 44 miles).
- Rebuild the existing Nottingham-Holloway #1 138 kV Line (Approximately 21 miles)
- Existing Conductor: Mixed conductor 795 ACSR & 477 ACSR
- Future Conductor: 795 ACSR
- Old Rating 158 MVA SN New Rating 275 MVA SN
- Rebuild the existing Nottingham-Holloway #2 138 kV Line (Approximately 21 miles) sharing a structure with the Nottingham-Holloway #1 138 kV Line
- Old Rating 200 MVA SN New Rating 275 MVA SN
- Rebuild a portion of the Nottingham-Yager #1138 kV Line (Approximately 3.6 miles) sharing a structure with the Knox-Nottingham 138 kV Line
- Old Rating 200 MVA SN New Rating 275 MVA SN

Alternatives Considered: Maintain existing condition

Estimated Project Cost: \$193.8M Project ISD: 5/31/2025 Status: Engineering



## **ATSI Transmission Zone** Holloway-Nottingham-Knox 138 kV Line



SRRTEP Committee: Western – FirstEnergy Supplemental 09/11/2020
#### Exhibit 5 Property Owner List and Agricultural Land Knox-Nottingham 138 kV Transmission Line Rebuild Project – Kilgore (Polo Road)-Washington Sub Segment

Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
170000823000	5.968	Existing	No	N/A
170000873000, 170000873003, 170000873001, 170000873002, 170000873004	8.11 7.483 7.062 6.775 7.027	Existing Existing Existing Existing Existing	No No No No	N/A N/A N/A N/A N/A
090000397000	29.245	Existing	No	N/A
170000569001, 170000496000, 170000497000	0.34 60.98 29.748	Existing Existing Existing	No No No	N/A N/A N/A
280001145000, 280001144000	168.00 42.00	Existing Existing	No No	N/A N/A
170000822000, 170000620004	7.50 0.768	Existing Existing	No No	N/A N/A
170060015000, 280060010000, 280001512000, 280001202000	60.00 49.00 1.00 66.40	Existing Existing Existing Existing	No No No	N/A N/A N/A N/A
170000620001, 170000621000, 330001096000, 330001095000	63.206 36.120 85.093 10.812	Existing Existing Existing Existing	No No No	N/A N/A N/A
340090013001	2.838	Existing	No	N/A
340000068000, 340000067000, 340000460000	40.00 5.00 27.150	Existing Existing Existing	No No No	N/A N/A N/A
090000162000	29.2730	Existing	No	N/A
170000872000	44.82	Existing	No	N/A
090000175000, 090000885000, 090000173000	45.00 20.00 38.244	Existing Existing Existing	No No No	N/A N/A N/A
090000509000, 330000430000, 330000432000	77.710 56.11 72.70	Existing Existing Existing	No No No	N/A N/A N/A
170000374000	100.00	Existing	No	N/A
090000884000, 090000884001	10.13 25.00	Existing Existing	No No	N/A N/A
170000780000	35.98	Existing	No	N/A
280000093000	42.27	Existing	No	N/A
170000561000, 170000436000	36.087 1.248	Existing Existing	No No	N/A N/A
280000712006	7.605	Existing	No	N/A
170000794000	16.46	Existing	No	N/A

340000212000, 340000209000, 340000210000, 340000211000	75.62 80.00 40.00 45.160	Existing Existing Existing Existing	No No No	N/A N/A N/A
170000633000	0.653	Existing	No	N/A
340000599000, 340000582000, 340000522000, 090000021009, 090000021002	97.72 17.05 23.20 7.510 11.00	Existing Existing Existing Existing Existing	No No No No	N/A N/A N/A N/A
340000010000	105.520	Existing	No	N/A
340000038000	80.255	Existing	No	N/A
09000021011	16.00	Existing	No	N/A
170000724001, 170000724000, 170000724002	77.99 7.00 4.00	Existing Existing Existing	No No No	N/A N/A N/A
170000729000 170000801000	8.160 5.990	Existing Existing	No No	N/A N/A
170000568000, 170000569000, 170000496005	1.470 0.440 5.10	Existing Existing Existing	No No No	N/A N/A N/A
170000130000, 170000125000, 170000123000, 170000129000, 170000124000, 170000122000, 170000126000, 170000121000, 170000120000	160.00 81.140 50.00 160.00 81.14 48.00 87.210 40.00 40.00	Existing Existing Existing Existing Existing Existing Existing Existing Existing	No No No No No No No	N/A N/A N/A N/A N/A N/A N/A N/A
340000306000, 340000304000, 340000303000, 340000301000, 340000302000, 340000299000	79.880 67.800 55.180 24.610 53.650 94.040	Existing Existing Existing Existing Existing Existing	No No No No No	N/A N/A N/A N/A N/A
170000824000	5.050	Existing	No	N/A
170000027000, 280000359000, 330000399000, 280001202001, 170000658000	80.00 31.000 80.00 9.780 80.00	Existing Existing Existing Existing Existing	No No No No	N/A N/A N/A N/A

280000039000, 280001449000, 280001448000, 280000763000, 28000039001, 280001490000, 280001088000	138.430 19.20 6.370 20.080 25.70 2.010 133.99	Existing Existing Existing Existing Existing Existing Existing	Yes Yes Yes Yes Yes Yes	2028 2028 2028 2028 2028 2028 2028 2028
340000195000, 340000194000, 090000398000, 090000399000, 090000400000	0.230 0.580 0.320 31.180 3.230	Existing Existing Existing Existing Existing	No No No No	N/A N/A N/A N/A
280000090000, 280000092000, 280000093001, 280001224000, 280001224001	31.870 73.312 83.440 12.059 51.113	Existing Existing Existing Existing Existing	No No No No	N/A N/A N/A N/A
09000020000, 09000019000, 090000864000, 090000864005, 090000864001	8.340 8.00 66.415 28.831 9.515	Existing Existing Existing Existing Existing	No No No No	N/A N/A N/A N/A
170000702000, 170000701000	2.250 0.10	Existing Existing	No No	N/A N/A
090000464000	9.320	Existing	No	N/A
170000789000, 170000790000	17.50 20.240	Existing Existing	No No	N/A N/A















In reply refer to: 2020-MLT-49294

September 16, 2020

Amy C. Favret, M.A., RPA Jacobs 2 Crowne Point Court, Suite 100 Cincinnati, Ohio 45241

RE: Section 106 Review-Holloway-Knox 138kV Transmission Line Rebuild Project, Belmont, Carroll, Columbiana, and Harrison Counties, Ohio

Dear Ms. Favret:

This letter is in response to the correspondence received on August 17, 2020 regarding the proposed 64mile long Holloway-Knox 138kV Transmission Rebuild Project in Belmont, Carroll, Columbiana, and Harrison Counties, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The proposed project will entail replacing the existing H-frame wood poles with direct embedded steel and drilled shaft H-frame wood poles. The new poles will be installed approximately 10-ft. from the existing poles within the 100-ft. wide right-of-way (ROW). All work will be within the existing ROW except for access roads, which will use existing roads, driveways, or farm lanes. Four pull pads, totaling 0.26-acres, will extend outside of the existing ROW.

A literature review report, *Holloway-Knox 138kV Transmission Line Project, Belmont, Carroll, Columbiana, and Harrison Counties, Ohio* was completed for the entire 64-mile rebuild project. A total of two National Register of Historic Places (NRHP)-listed properties, 165 Ohio Historic Inventory (OHI) properties, two NRHP eligible properties, 43 cemeteries, and 224 Ohio Archaeological Inventory (OAI) sites were identified within the 1.0-mile study area. Of these, one cemetery (Bird/Byrd Cemetery-OGS ID 1381) and two OAI sites (33CO257 and 33CO258) were determined to be within the project ROW. Additionally, one historic architecture survey and 11 Phase I archaeological surveys overlap portions of the ROW.

Sites 33CO257 and 33CO258 are low-density prehistoric lithic scatters previously identified during one of the Phase I surveys. Neither of these sites are near existing poles. Site 33CO257 was recommended for further work, but to date, no additional work has been conducted at the site. As a precautionary measure, a 50-ft. buffer using construction fencing will be placed around site 33CO257 during construction. The Bird/Byrd Cemetery is approximately 151-ft. south of the nearest pole and therefore will not be impacted by the project. Since this cemetery is within the ROW, it is recommended that a 50-ft. buffer using construction fencing also be put up around the cemetery during construction as a precautionary measure.

Due to the nature of the project as a rebuild, it is Jacob's recommendation that no further archaeological or architectural investigations are necessary as the visibility of the existing transmission line should not increase. Our office agrees with this recommendation.

2020-MLT-49294 September 16, 2020 Page 2

Based on the information provided, we agree that the project, as proposed, will have no effect on historic properties. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of construction. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions, please contact me by e-mail at <u>sbiehl@ohiohistory.org</u> or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Steph M. Biell

Stephen M. Biehl, Project Reviews Coordinator (archaeology) Resource Protection and Review State Historic Preservation Office

cc: Joy Williams, SHPO

RPR Serial No. 1085225

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

From:	Nathan.Reardon@dnr.ohio.gov
То:	Otto, Benjamin (Jacobs Engineering Group)
Cc:	Bagato, Steve (B & M); Ruggiero, Augustine; Chenault, Brandy; Mike.Pettegrew@dnr.ohio.gov; Ann.Schweitzer@dnr.ohio.gov
Subject:	[EXTERNAL] RE: 23-0053; FirstEnergy Holloway-Knox 138 kV Transmission Line Rebuild Project Follow-Up
Date:	Thursday, July 11, 2024 2:46:48 PM
Attachments:	image003.png

Hello Ben,

The DOW concurs that the avoidance/minimization measures as proposed are sufficient in minimizing impacts to listed species, including birds and bats.

Thank you, Nathan

> Nathan Reardon Lands Coordinator ODNR Division of Wildlife 2045 Morse Road Columbus, OH 43229 Phone: 614-265-6741 Email: nathan.reardon@dnr.ohio.gov

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From: Otto, Ben <Ben.Otto@jacobs.com>

**Sent:** Thursday, July 11, 2024 1:58 PM

To: Pettegrew, Mike < Mike.Pettegrew@dnr.ohio.gov>

**Cc:** Reardon, Nathan <Nathan.Reardon@dnr.ohio.gov>; Bagato, Steven <sbagato@burnsmcd.com>; Ruggiero, Augustine (Jirousek, Michael J.) <Aruggiero@firstenergycorp.com>; Chenault, Brandy <Brandy.Chenault@jacobs.com>

Subject: 23-0053; FirstEnergy Holloway-Knox 138 kV Transmission Line Rebuild Project Follow-Up

Dear Mr. Pettegrew,

On behalf of American Transmission Systems Inc., a subsidiary of FirstEnergy Service Company (FirstEnergy), Jacobs Engineering Group Inc. is submitting this follow up letter report to the ODNR in response to comments provided on February 7, 2023, regarding the proposed Holloway-Knox 138 kV Transmission Line Project (23-0053). This follow-up letter is being provided for the Phase 2 portion of this Project. Please find the attached response letter requesting concurrence from the ODNR that the Project, as proposed with the avoidance and minimization measures, will not likely adversely

affect state-listed bird and bat species. Please let us know if you have any questions or need any additional information for your review.

Thanks,

#### **Benjamin Otto** | <u>Jacobs</u> | Senior Ecologist & Project Manager O:+513.595.7808 M:+513.377.6458 | <u>Ben.Otto@jacobs.com</u> 2 Crowne Point Court, Suite 100 | Cincinnati, OH 45241 | United States

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### Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

**Office of Real Estate** John Kessler, Chief 2045 Morse Road – Bldg. E-2 Columbus, OH 43229 Phone: (614) 265-6621 Fax: (614) 267-4764

February 7, 2023

Jen Wessel Jacobs Engineering Group, Inc. 2 Crowne Point Court Cincinnati, OH 45241

Re: 23-0053; Holloway-Knox 138 kV Transmission Line Rebuild Project

**Project:** The proposed project involves replacing the existing wood h-frame structures of the 138-kV electric transmission line with a combination of new direct embedded steel and drilled shaft H-frame wood pole structures.

**Location:** The proposed project is located in Archer, Athens, Augusta, Cadiz, Center, Lee, Mead, Perry, Pultney, Richland, Rumley, Washington, West and Wheeling townships; and through the City of St. Clairsville, within Columbiana, Carroll, Harrison, and Belmont counties, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Natural Heritage Database:** The Natural Heritage Database has the following data at or within one mile of the project area:

Drummond's Aster (Symphyotrichum drummondii), T Sharp-shinned Hawk (Accipiter striatus), SC Upland Sandpiper (Bartramia longicauda), E Northern Harrier (Circus hudsonius), E Barn Owl (Tyto alba), T Slippershell Mussel (Alasmidonta viridis), T Creek Heelsplitter (Lasmigona compressa), SC Mussel Bed

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The majority of the project route within Carroll, Harrison, and Belmont Counties is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and/or the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in this area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (Myotis septentrionalis), a state endangered and federally threatened species, the little brown bat (Myotis lucifugus), a state endangered species, and the tricolored bat (Perimvotis subflavus), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with  $DBH \ge 20$  if possible. However, if trees are present within this area, (outside of the area delineated above) and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE <u>CLEARING</u>". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "<u>RANGE-</u><u>WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES</u>.</u>" If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza, for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species. <u>State Endangered</u> butterfly (*Ellipsaria lineolata*) Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this or other mussel species.

The project is within the range of the following listed fish species. <u>State Endangered</u> western banded killifish (*Fundulus diaphanus menona*)

<u>State Threatened</u> channel darter (*Percina copelandi*) paddlefish (*Polyodon spathula*) river darter (*Percina shumardi*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis* alleganiensis), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The <u>local floodplain administrator</u> should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at <u>mike.pettegrew@dnr.ohio.gov</u> if you have questions about these comments or need additional information.

Mike Pettegrew Environmental Services Administrator

#### **United States Department of the Interior**

FISH AND WILDLIFE SERVICE

Ecological Services 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / FAX (614) 416-8994

January 26, 2023

Project Code: 2023-0031065

Reference: AEP Holloway-Knox project 138 kV line rebuild

Dear Mr./Ms,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (Myotis sodalis) and threatened northern long-eared bat (Myotis septentrionalis) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees  $\geq$ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees  $\geq$ 3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees  $\geq$ 3 inches dbh cannot be avoided, we recommend removal of any trees  $\geq$ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see https://ecos.fws.gov/ecp/species/9045), incidental take of Indiana bats is still prohibited without





a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

<u>Section 7 Coordination</u>: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

<u>Stream and Wetland Avoidance</u>: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (<u>https://epa.ohio.gov/portals/47/facts/ohio\_wetlands.pdf</u>). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or <u>ohio@fws.gov</u>.

Sincerely,

al

Patrice Ashfield Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW Eileen Wyza, ODNR-DOW

# Wetland and Waterbody Delineation Report

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project Carroll County, Ohio

Prepared for



June 2024



Jacobs Engineering Group Inc. 2 Crowne Point Court, Suite 100 Cincinnati, OH 45241

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## 1 Introduction

This wetland and waterbody delineation report (Report) summarizes the results of the wetland and waterbody delineation surveys conducted on the Washington-Kilgore (Polo Road) 138 kilovolt (kV) Transmission Line Rebuild Project (Project) in Carroll County, Ohio by Jacobs Engineering Group Inc. (Jacobs), for American Transmission Systems, Incorporated (ATSI), a wholly owned subsidiary of FirstEnergy Corporation. ATSI is proposing to replace existing wood H-frame structures with new direct embedded steel and drilled shaft H-frame wood pole structures along approximately 11.5 miles of existing transmission line. The environmental survey boundary (ESB) included the existing 100-foot right-of-way (ROW) and off-ROW access roads. This Report contains the following components:

- Figure 1 in Appendix A provides an overview map of the ESB overlain on U.S. Geological Survey (USGS) Topographic Maps.
- Figures 2-1 to 2-42 in Appendix A show U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil map units, National Wetland Inventory (NWI) polygons, national hydrography dataset (NHD) streams, and Federal Emergency Management Agency (FEMA) 100-year floodplain and floodway information.
- Figures 3-1 to 3-42 in Appendix A provide the location of all features mapped during the delineation by Jacobs biologists. This includes all wetlands, data points, and waterbodies.
- U.S. Army Corps of Engineers (USACE) wetland determination data forms are in Appendix B.
- Ohio Rapid Assessment Method for Wetlands (ORAM) two-page forms are in Appendix C.
- Qualitative Habitat Evaluation Index (QHEI) Stream Forms are in Appendix D.
- Headwater Habitat Evaluation Index (HHEI) Stream Forms are in Appendix E.
- Jacobs Open Water/Pond Data Forms are in Appendix F.

## 2 Background Information

The ESB begins just north of Cobbler Road NE (40.622370, -81.042573), and extends south to its end just north of Pomona Road (40.456873, -81.049261). The ESB crosses the townships of Washington, Center, Lee, and Perry, Ohio (Figure 1).

Review of the USGS 7.5-minute topographic maps crossed by the ESB (Carrollton and Scio, Ohio) indicates that the primary waterways that drain the ESB include Pipe Run, Friday Creek, North Fork McGuire Creek, Long Creek, McGuire Creek. Topographic relief is comprised of rolling hills, with elevations ranging between 1,040 feet and 1,340 feet above sea level throughout the ESB (Figure 1).

Land use and natural communities observed within the ESB include transmission line ROW, agricultural, hayfield, pasture, residential, road, gravel lot, wetlands, streams, and ponds.

### 2.1 Annual Precipitation

Precipitation history for Steubenville, Ohio was reviewed prior to completing the environmental survey to determine if climatic conditions were normal at the time of the survey. Steubenville was the nearest weather station with both recent and historic precipitation data. Rainfall recorded in Steubenville ranged from below average to above average leading up to the surveys in late April and May 2024 (Table 2-1; USDA 2024), with an overall trend suggesting that climatic conditions were wetter than usual for the region and time of year. This was taken into consideration during the delineation.

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project					
Precipitation Data	Feb	Mar	Apr	May	Total
2024 Monthly Sum <sup>1,3</sup>	2.28	3.76	7.04	2.57*	15.65
Normal Precipitation <sup>2,3</sup>	1.69-2.93	2.56-3.80	2.33-3.77	2.95-4.85	9.53-15.35
Monthly climatic condition	average	average	above average	below average*	above average

**TABLE 2-1: Recent Precipitation Data** 

<sup>1</sup>Monthly weather summary from weather station STEUBENVILLE, OH

<sup>2</sup>USDA WETS Station Climate Data 1971-2000 (USDA 2024)

<sup>3</sup>Displayed in inches

\*Missing data so this value is an underestimate

### 2.2 Drainage Basins

The Project is within the Tuscarawas watershed, corresponding to 8-digit Hydrologic Unit Code (HUC) 05040001. More specifically it crosses the five drainage basins outlined in Table 2-2 (USGS 2024).

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project			
HUC 12-Digit Code	HUC 12-Digit Name		
50400010703	Dining Fork		
50400010706	McGuire Creek		
50400010403	Pipes Fork-Still Fork		
50400010705	North Fork McGuire Creek		
50400010801	Cold Spring Run-Indian Fork		

Source: USGS 2024

### 2.3 Traditional Navigable Waters

The U.S. Environmental Protection Agency (USEPA) and USACE assert jurisdiction over "all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce including all waters which are subject to the ebb and flow of the tide" (USACE and EPA 2008). These waters are considered traditionally navigable waters (TNW). No TNW directly cross the ESB.

## **3 Wetland and Waterbody Delineation**

### 3.1 Desktop Review

Prior to conducting the field investigations, Jacobs reviewed the following resources to identify the potential for wetlands within the ESB:

- Aerial photo-based maps (ESRI 2024)
- Topographic maps (USGS 2023a)
- NRCS Web Soil Survey (USDA-NRCS 2023)
- NWI shapefile (USFWS 2023)
- National Hydrography Dataset (USGS 2023b)

According to the NRCS soil survey of Carroll County (USDA-NRCS 2023), the ESB consists of 28 soil map units (Figures 2-1 to 2-42). Of these, 22 units are listed as not hydric, four are predominantly non-hydric, and two are predominantly hydric (Table 3-1). Hydric or predominantly hydric soils comprise 3 percent of the ESB.

Generally, hydric soils are those soils that indicate through their color and structure that they have experienced dominantly reducing (i.e., oxygen poor) conditions. Oxygen-poor conditions result from inundation and/or saturation by water. Partially hydric soils have both hydric and non-hydric soil components identified in the soil map unit.

#### TABLE 3-1: Soil Map Units

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

Soil type	Soil type description	Hydric status	Acres within ESB
Bhv1D	Bethesda silt loam, 8 to 25 percent slopes, reclaimed	Predominantly Non-Hydric	0.53
BkB	Berks channery silt loam, 3 to 8 percent slopes	Not Hydric	0.73
BkC	Berks channery silt loam, 8 to 15 percent slopes	Not Hydric	2.03
BkD	Berks shaly silt loam, 15 to 25 percent slopes	Not Hydric	1.76
BkE	Berks channery silt loam, 25 to 35 percent slopes	Not Hydric	11.76
CnB	Coshocton silt loam, 3 to 8 percent slopes	Not Hydric	0.37
CoB	Coshocton-Keene silt loams, 3 to 8 percent slopes	Not Hydric	0.93
CuB	Culleoka silt loam, 3 to 8 percent slopes	Not Hydric	0.24
EbB	Elba silty clay loam, 3 to 8 percent slopes	Not Hydric	1.93
EcD2	Elba-Upshur silty clay loams, 15 to 25 percent slopes, eroded	Not Hydric	0.04
FaD	Fairpoint channery clay loam, 8 to 25 percent slopes	Predominantly Non-Hydric	0.75
GfB	Glenford silt loam, 3 to 8 percent slopes	Predominantly Non-Hydric	0.02
GuB	Guernsey silty clay loam, 3 to 8 percent slopes	Not Hydric	0.31
GuC2	Guernsey silty clay loam, 8 to 15 percent slopes, eroded	Not Hydric	1.03
HeB	Hazleton loam, 3 to 8 percent slopes	Not Hydric	2.33
HeE	Hazleton loam, 25 to 40 percent slopes	Not Hydric	0.81
Ho	Holly silt loam, ponded	Predominantly Hydric	0.99
Or	Orrville silt loam, 0 to 3 percent slopes, occasionally flooded	Predominantly Non-Hydric	2.86
RgB	Rigley sandy loam, 3 to 8 percent slopes	Not Hydric	5.24
RgC	Rigley sandy loam, 8 to 15 percent slopes	Not Hydric	11.10
RgD	Rigley sandy loam, 15 to 25 percent slopes	Not Hydric	15.79

RgE	Rigley sandy loam, 25 to 40 percent slopes	Not Hydric	7.88
Sb	Sebring silt loam	Predominantly Hydric	4.69
WhB	Wellston silt loam, 3 to 8 percent slopes	Not Hydric	0.18
WkD	Westmoreland silt loam, 15 to 25 percent slopes	Not Hydric	4.50
WkE	Westmoreland silt loam, 25 to 35 percent slopes	Not Hydric	3.34
WmC	Westmoreland-Coshocton silt loams, 8 to 15 percent slopes	Not Hydric	41.52
WmD	Westmoreland-Coshocton silt loams, 15 to 25 percent slopes	Not Hydric	24.21

NWI data were obtained from the United States Fish and Wildlife Service (USFWS) for review of potential wetlands that may occur within the ESB. The NWI data (USFWS 2023) identify the type of wetland or open water present at a location using the USFWS classification system (Cowardin et al. 1979). The NWI data indicated that there are 15 NWI features within the ESB (Figure 2-1 to 2-42; USFWS 2023). This included emergent, forested, pond, and riverine NWI wetland types (Table 3-2). The presence of an NWI feature is not a definitive indicator that a wetland or waterbody is present. The information on NWI maps is obtained largely from aerial interpretation, may be outdated, and is only sporadically field-checked.

TABLE 3-2: Mapped National Wetland Inventory Features Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

Wetland Type	Description	Count of Mapped	Acres within
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Features	ESB
PEM1A	Palustrine emergent, persistent, temporarily flooded	2	0.91
PEM1C	Palustrine emergent, persistent, seasonally flooded	1	0.08
PF01C	Palustrine forested, broad-leaved deciduous, seasonally flooded	1	0.01
PUBGx	Palustrine unconsolidated bottom, intermittently exposed, excavated	3	0.68
R4SBC	Riverine intermittent streambed, seasonally flooded	1	0.26
R5UBH	Riverine unknown perennial unconsolidated bottom, permanently flooded	7	0.67

As shown on the FEMA floodplain panels (Figures 2-1 to 2-42), a floodplain associated with Pipe Run (Stream WP-02) crosses the ESB (FEMA 2010).

## 3.2 Field Survey Methodology

In April and May 2024, Jacobs biologists surveyed the ESB by walking the area and evaluating for wetlands and other waters of the U.S. The boundaries of each wetland and waterbody within the ESB were delineated and recorded using handheld global navigation satellite system (GNSS) receivers. For waterbodies identified within the Project area, the ordinary high-water mark (OHWM) was used as the jurisdictional boundary.

Wetland data were recorded on USACE Eastern Mountains and Piedmont wetland determination data forms, stream data were recorded on QHEI forms and HHEI forms, and pond data were recorded on Jacobs Pond/open water forms. All other land use, habitat, and other supplemental data were collected in a digital geodatabase during the environmental survey.

#### 3.2.1 Wetland Delineation

Wetland boundaries were field-delineated according to using the routine onsite methodology described in the Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual* and subsequent guidance documents (Environmental Laboratory 1987) and according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont* 

*Region* (Version 2.0) (USACE 2012). Wetland delineation data were recorded on the USACE Regional Supplement wetland determination data forms. Representative wetland and upland data points were recorded during the wetland delineation to determine the presence/absence of wetlands and/or to document upland conditions within the Project area. Upland data points were determined not to be within wetlands because they did not have positive indicators of one or more of the three wetland criteria: hydrophytic vegetation, wetland hydrology, and hydric soils.

#### 3.2.1.1 Soils

Jacobs biologists examined soils using a shovel to extract soil cores, which were examined for hydric soil characteristics. A *Munsell Soil Color Chart* (Munsell Color 2012) was used to identify the hue, value, and chroma of the matrix and concentrations/depletions of the soils. Generally, mottled soils with a matrix chroma of two or less, or unmottled soils with a matrix chroma of one or less are considered to exhibit hydric soil characteristics (Environmental Laboratory 1987). In sandy soils, mottled soils with a matrix chroma of two or less, or unmottled soils with a matrix chroma of two or less are hydric soils.

#### 3.2.1.2 Hydrology

The 1987 Manual requires that an area be inundated or saturated to the surface for an absolute minimum of five percent of the growing season. Areas saturated between five percent and 12.5 percent of the growing season may or may not be wetlands, while areas saturated over 12.5 percent of the growing season fulfill the hydrology requirements for wetlands. The *Regional Supplement* states that the growing season dates are determined through onsite observations of the following indicators of biological activity in a given year; (1) above-ground growth and development of vascular plants, and/or (2) soil temperature (12-in. depth is 41 degrees Fahrenheit or higher) as an indicator of soil microbial activity. Therefore, the beginning of the growing season by whichever persists later.

The soils and ground surface were examined by Jacobs biologists for evidence of wetland hydrology in lieu of detailed hydrological data. This is an acceptable approach according to the *1987 Manual* and the *Regional Supplement*. Evidence indicating wetland hydrology typically includes primary indicators such as surface water, saturation, water marks, drift deposits, water-stained leaves, sediment deposits, and oxidized rhizospheres on living roots; and secondary indicators such as drainage patterns, geomorphic position, microtopographic relief, and a positive Facultative (FAC)-neutral test (USACE 2012).

#### 3.2.1.3 Vegetation

Dominant vegetation was visually assessed for each stratum (tree, sapling/shrub, herb, and woody vine) and an indicator status (obligate wetland [OBL], facultative wetland [FACW], facultative [FAC], facultative upland [FACU], upland [UPL]) was assigned to each plant species based on the 2020 National Wetland Plant List. Under normal circumstances, an area is determined to have hydrophytic vegetation when any of the following are true: all dominant species are OBL or FACW; more than 50 percent of the dominant species are OBL, FACW or FAC; or the average total cover of plants, when weighted based on indicator status, calculates to a prevalence index of less than or equal to three.

Wetland quality was evaluated using the Ohio Environmental Protection Agency (OEPA) ORAM Version 5.0 (Mack 2001). Categorization was conducted in accordance with the latest quantitative score calibration (OEPA 2000). Wetlands are scored based on hydrology, upland buffer, habitat alteration, special wetland communities, and vegetation communities. Each of these subject areas is further divided into subcategories under ORAM v5.0 resulting in a score that describes the wetland using a range from 0 (low quality and high disturbance) to 100 (high quality and low disturbance). Wetlands scored from 0 to 29.9 are grouped into "Category 1", 30 to 59.9 are "Category 2" and 60 to

100 are "Category 3". Transitional zones exist between Categories 1 and 2 from 30 to 34.9 and between Categories 2 and 3 from 60 to 64.9. However, according to the OEPA, if the wetland score falls into the transitional range, it must be given the higher Category unless scientific data can prove it should be in a lower category (Mack 2001).

#### 3.2.2 Stream Assessment

Jurisdictional streams were identified as those waters that possessed a continuously defined bed and bank, OHWM indicators, and lacked a dominance of upland vegetation in the channel. Per USACE guidance, the OHWM is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE 2005). Channels that parallel a roadway or railroad were identified as upland drainage features and were not considered to be jurisdictional unless they had an identifiable OHWM, were identified on the USGS topographic map, or represented a presumed relocation of a natural channel.

During the field survey, functional stream assessments were conducted using the methods described in *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index* (OEPA 2006) and *Field Methods for Evaluating Primary Headwater Streams in Ohio* (OEPA 2020). The QHEI is used to characterize larger streams (drainage areas greater than one square mile), while the HHEI is appropriate for first-order and second-order headwater streams (drainage areas less than one square mile).

## **4 Field Survey Results**

Jacobs biologists surveyed the Project area on April 30-May 2 and May 21-23, 2024 by walking the ESB and evaluating for wetlands and other waters of the U.S. Twenty-six wetlands, 35 streams, and five ponds were delineated within the ESB; these features are displayed and identified on the Wetlands and Waterbodies Delineation Map (Figures 3-1 to 3-42). Jacobs defaults to the USACE and OEPA for the final determination of hydrologic connectivity and jurisdiction.

### 4.1 Wetlands

Twenty-six wetlands were delineated, ranging in size from less than 0.01 to 1.12 acres within the ESB. All 26 wetlands were identified as palustrine emergent (PEM) wetlands. No palustrine scrub-shrub (PSS) or palustrine forested (PFO) wetlands were observed within the ESB. These wetlands are depicted in Figures 3-1 to 3-42. The reported wetland acreage only corresponds to areas delineated within the ESB, as some wetlands extended beyond the survey boundary.

Completed USACE wetland and upland determination forms are provided in Appendix B. Representative photographs were taken of each wetland during the field survey and are appended to each USACE wetland and upland form. Detailed information for each delineated wetland within the ESB is provided in Table 4-1.

Watland ID	Loca	ation	Wetland	Acres	ORAM Score,
wettand ID	Latitude	Longitude	Type <sup>1</sup>	within ESB	Category
Wetland WP-01	40.62214	-81.04252	PEM	0.39	42.5, Category 2
Wetland WP-02	40.61982	-81.04265	PEM	1.12	36, Category 2
Wetland WP-03	40.61755	-81.04273	PEM	0.09	22, Category 1
Wetland WP-04	40.61565	-81.04283	PEM	0.16	34.5, Category 2
Wetland WP-05	40.61371	-81.04292	PEM	0.51	35, Category 2
Wetland WP-06	40.60825	-81.04316	PEM	0.06	26.5, Category 1
Wetland WP-07	40.60554	-81.04331	PEM	0.04	27.5, Category 1
Wetland WP-08	40.59858	-81.04349	PEM	0.08	35.5, Category 2
Wetland WP-09	40.58039	-81.04479	PEM	0.01	28.5, Category 1
Wetland WP-10	40.57254	-81.04606	PEM	0.10	24.5, Category 1
Wetland WP-11	40.57001	-81.04600	PEM	0.08	22, Category 1
Wetland WP-12	40.56713	-81.04561	PEM	0.02	29, Category 1
Wetland WP-13	40.56438	-81.04559	PEM	0.03	27, Category 1
Wetland WP-14	40.54575	-81.04696	PEM	<0.01	17.5, Category 1
Wetland WP-15	40.53200	-81.04666	PEM	0.40	42.5, Category 2
Wetland WP-16	40.52306	-81.04708	PEM	0.62	39.5, Category 2
Wetland WP-17	40.51728	-81.04723	PEM	0.08	19, Category 1
Wetland WP-18	40.51682	-81.04737	PEM	0.04	28.5, Category 1
Wetland WP-19	40.51507	-81.04735	PEM	0.01	28.5, Category 1
Wetland WP-20	40.50299	-81.04899	PEM	0.06	22, Category 1
Wetland WP-21	40.50225	-81.04798	PEM	0.19	27.5, Category 1
Wetland WP-22	40.48754	-81.04873	PEM	0.48	31.5, Category 2
Wetland WP-23	40.48203	-81.04901	PEM	0.04	17, Category 1

TABLE 4-1: Delineated Wetlands

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

#### TABLE 4-1: Delineated Wetlands

					2	
Watland ID	Loca	ation	Wetland	Acres	ORAM Score,	
wettand iD	Latitude	Longitude	Type <sup>1</sup>	within ESB	Category	
Wetland WP-24	40.47493	-81.04943	PEM	0.03	25.5, Category 1	
Wetland WP-25	40.47152	-81.04945	PEM	0.07	28.5, Category 1	
Wetland WP-26	40.46925	-81.04945	PEM	0.38	34, Category 2	
					- ,	

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

<sup>1</sup>Cowardin et al. 1979.

#### 4.1.1 Wetland ORAM Results

Seventeen Category 1 wetlands and nine Category 2 wetlands were identified within the ESB. No Category 3 wetlands were identified within the ESB. Table 4-1 provides summary information regarding wetlands identified within the ESB, and completed ORAM forms are included in Appendix C.

The 17 PEM wetlands identified as Category 1 wetlands were based on ORAM scores ranging from 17 to 29. Generally, the Category 1 wetlands scored low due to factors such as narrow buffer width, moderate to high intensity surrounding land use, moderate hydrology, poor to fair habitat development, habitat alteration, low quality vegetation communities, lack of horizontal interspersion, presence of invasive species, and minimal microtopography.

The nine PEM wetlands identified as Category 2 wetlands were based on ORAM scores ranging from 31.5 to 42.5. These Category 2 wetlands exhibited much of the same characteristics as a Category 1 wetland but with a greater buffer width, recovery from habitat alteration, and no invasive species cover.

### 4.2 Streams

Thirty-five streams were identified, totaling 5,175 linear feet within the ESB. Of the 35 streams, 13 were identified as ephemeral streams, 13 were intermittent streams, and nine were perennial streams. Five streams were assessed using the QHEI methodology (drainage area greater than one square mile) and 30 streams were assessed using the HHEI methodology (drainage area less than one square mile).

Completed QHEI and HHEI forms are provided in Appendix D and E, respectively. Representative photographs were taken of each stream during the field survey and are appended to each QHEI and HHEI stream form. Detailed information for each delineated stream within the ESB is provided in Table 4-2.

Washington-Kilgore (Polo Road)) 138 kV Transmission Line Rebuild Project							
Stream ID	Location		Flow Regime <sup>1</sup>	Length (feet)	Average OHWM Width (foot)		
	Latitude	Longitude		within LSD			
Stream WP-01	40.61774	-81.04272	Intermittent	79	1		
Stream WP-02	40.61538	-81.04283	Perennial	363	5		
Stream WP-03	40.61401	-81.04289	Perennial	114	3		
Stream WP-04	40.60824	-81.04316	Ephemeral	122	3		
Stream WP-05	40.60550	-81.04325	Ephemeral	116	1		
Stream WP-06	40.60257	-81.04336	Intermittent	124	3		
Stream WP-07	40.59926	-81.04528	Ephemeral	67	2		
Stream WP-08	40.59871	-81.04355	Perennial	149	3		
Stream WP-09	40.58098	-81.04468	Intermittent	20	1		

#### TABLE 4-2: Delineated Streams

#### TABLE 4-2: Delineated Streams

Stream ID	Location		Flow Regime <sup>1</sup>	Length (feet)	Average OHWM	
Stream iD	Latitude	Longitude	r tow Regime	within ESB	Width (feet)	
Stream WP-10	40.57777	-81.04545	Ephemeral	113	1	
Stream WP-11	40.57433	-81.05013	Intermittent	61	3	
Stream WP-12	40.57255	-81.04608	Perennial	213	3	
Stream WP-13	40.57222	-81.04605	Intermittent	116	4	
Stream WP-14	40.56671	-81.04574	Ephemeral	490	1.5	
Stream WP-15	40.56435	-81.04564	Perennial	102	4	
Stream WP-16	40.55629	-81.04556	Ephemeral	76	1	
Stream WP-17	40.55550	-81.04552	Ephemeral	102	1	
Stream WP-18	40.54315	-81.04602	Ephemeral	61	2	
Stream WP-19	40.54022	-81.04629	Ephemeral	102	2	
Stream WP-20	40.53630	-81.04651	Intermittent	187	5	
Stream WP-21	40.53187	-81.04680	Perennial	203	7	
Stream WP-22	40.53139	-81.04657	Intermittent	84	3	
Stream WP-23	40.52333	-81.04711	Perennial	245	3.5	
Stream WP-24	40.52190	-81.04703	Intermittent	216	1.5	
Stream WP-25	40.51497	-81.04742	Intermittent	143	1.5	
Stream WP-26	40.50926	-81.04768	Ephemeral	104	1	
Stream WP-27	40.50905	-81.04763	Ephemeral	82	2	
Stream WP-28	40.50249	-81.04794	Perennial	196	5	
Stream WP-29	40.50196	-81.04789	Ephemeral	52	1	
Stream WP-30	40.48719	-81.04869	Perennial	154	4	
Stream WP-31	40.48685	-81.04861	Ephemeral	136	2	
Stream WP-32	40.47458	-81.04953	Intermittent	380	5	
Stream WP-33	40.47144	-81.04943	Intermittent	130	2	
Stream WP-34	40.46723	-81.04941	Intermittent	101	6	
Stream WP-35	40.46250	-81.04934	Intermittent	171	2	

Washington-Kilgore (Polo Road)) 138 kV Transmission Line Rebuild Project

<sup>1</sup>Flow regime estimated based on analysis of drainage area, gradient, and observations at the time of survey

#### 4.2.1 QHEI Results

Five streams, totaling 1,047 linear feet within the ESB, were evaluated using QHEI methodology. Four were classified as Fair Warmwater streams and one was classified as a Poor Warmwater stream. The completed QHEI forms are included in Appendix D and Table 4-3 provides a summary of streams identified within the ESB that were assessed using the QHEI.

TABLE 4-3: QHEI Stream Summary

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

Flow		Number of	Length				
Regime	Very Poor Warmwater	Poor Warmwater	Fair Warmwater	Good Warmwater	Excellent Warmwater	Streams	(feet) within ESB
Perennial	0	1	4	0	0	5	1,047
Total	0	1	4	0	0	5	1,047

#### 4.2.2 HHEI Results

Thirty headwater streams, totaling 4,128 linear feet within the ESB, were evaluated using the HHEI methodology. Eighteen of the streams were categorized as Modified Class II and 12 of the streams

were categorized as Modified Class I. Of the 30 streams, 13 were ephemeral, 13 were intermittent, and four were perennial streams. Completed HHEI forms are provided in Appendix E and Table 4-4 provides a summary of streams identified within the ESB that were assessed using the HHEI.

wasnington-	Kilgore (Polo	Roaa) 138	RV Transmi	ssion Line R	ebulla Projec	.t	
Flow Regime <sup>1</sup>	Modified Class I	Class I	HHEI Class Modified Class II	Class II	Class III	Number of Streams	Length (feet) within ESB <sup>2</sup>
Ephemeral	11	0	2	0	0	13	1,623
Intermittent	1	0	12	0	0	13	1,812
Perennial	0	0	4	0	0	4	692
Total	12	0	18	0	0	30	4,128

#### **TABLE 4-4: HHEI Stream Summary**

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

<sup>1</sup>Flow regime estimated based on analysis of drainage area, gradient, and observations at the time of survey. <sup>2</sup>Numbers have been rounded for presentation purposes so the sum of the addends may not equal the total.

### 4.3 Ponds/Open Water

Five ponds, totaling 0.81 acres within the ESB, were identified and can be found on Figures 3-1 to 3-42. Detailed information for each delineated pond within the ESB is provided in Table 4-5. Representative photographs and more detailed information on pond conditions can be found in Appendix F.

#### TABLE 4-5: Delineated Ponds

Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project

Dand ID	Loc	Acres		
Ponu ID	Latitude	Longitude	within ESB	
Pond WP-01	40.58117	-81.04482	0.13	
Pond WP-02	40.57433	-81.04971	0.00	
Pond WP-03	40.56407	-81.04564	0.34	
Pond WP-04	40.54348	-81.04614	0.30	
Pond WP-05	40.51503	-81.04750	0.04	

## 5 Conclusion

Jacobs conducted an environmental survey of the Washington-Kilgore (Polo Road) 138 kV Transmission Line Rebuild Project on April 30-May 2 and May 21-23, 2024. Twenty-six wetlands, 35 streams, and five ponds were delineated within the environmental survey boundary. The 26 wetlands totaled 5.10 acres within the ESB and were all PEM wetlands. Of the 26 wetlands, 17 were identified as Category 1 wetlands and nine were identified as Category 2 wetlands. No Category 3 wetlands were identified within the ESB.

The 35 streams totaled 5,175 linear feet within the ESB and included 13 ephemeral streams, 13 intermittent streams, and nine perennial streams. Five streams were assessed using QHEI methodology (drainage area greater than 1 square mile) and 30 streams were assessed using the HHEI methodology (drainage area less than 1 square mile). Additionally, five ponds were identified totaling 0.81 acres within the ESB.

The jurisdiction of all assessed features will be determined by the USACE and state-established water quality standards based on hydrologic connectivity. Further coordination with the USACE and state regulating agency is recommended prior to the submittal of any permit or construction activities.

The results of the wetland and waterbody field survey described in this Report conducted by Jacobs are limited to what was identified within the ESB. The information contained in this Report is for a study area that may be much larger than the actual Project limits-of-disturbance for construction; therefore, lengths and acreages listed in this Report may likely not constitute the actual impacts of the Project at the time of construction. If permits are determined to be necessary, actual impacted lengths and/or acreages will be submitted in subsequent permit applications.

The wetland and waterbodies field survey results presented within this Report apply to the site conditions at the time of our assessment. Changes within the environmental survey boundary that may occur with time due to natural processes or human impacts at the project site or on adjacent properties, could invalidate the findings of this Report, especially if Jacobs is unaware and has not had the opportunity to revisit the Project. Additionally, changes in applicable standards and regulations may also occur as a result of legislation or the expansion of information over time. Therefore, the findings of this Report may be invalidated, wholly or in part, by changes that are beyond the control of Jacobs.

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## Appendix A Figures




















Vidc1vs01(GISProl/P/FirstEnergv/Hollowav\_Knox/Maps)Report/WDR/Phase2(HK\_Phase2) WDR,aprx





Ndc1vs011GISProJIPIFirstEnergyHolloway\_KnoxIMapsIReportIWDRIPhase21HK\_Phase2\_WDR.apn































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Washington-Kilgore (Polo Road) 138kV Transmission Line Rebuild Project

Jacobs

400

































	Proposed St Embed	ructure - Direct		
•	Upland Data	a Point		
0	Wetland Da	ta Point		
٠	Culvert			
	Washington Road) - Pha	-Kilgore (Polo se 2		
	Delineated S	Stream		
	Delineated I	Pond		
****	Delineated I	PEM Wetland		
	Environmen Boundary	tal Survey		
N				
BASE MAP SOURCE: Esri World Imagery				
0 200 400				
FEET				
ATS American Trans	mission Systems, Inc.	Washington-Kilgore (Polo Road) 138kV Transmission Line Rebuild Project		
FIGURE 3-11 DELINEATED FEATURES MAP				
DATE: 6/6/2024		Jacobs		





200 FEET



Washington-Kilgore (Polo Road) 138kV Transmission Line Rebuild Project

Jacobs

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200 FEET



Washington-Kilgore (Polo Road) 138kV Transmission Line Rebuild Project

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Washington-Kilgore (Polo Road) 138kV Transmission Line Rebuild Project

Jacobs







	Proposed St Embed	ructure - Direct	t		
•	Upland Data	a Point			
0	Wetland Da	ta Point			
	Culvert				
	Washington Road) - Pha	-Kilgore (Polo se 2			
	Delineated S	Stream			
	Delineated I	Pond			
****	Delineated I	PEM Wetland			
	Environmen Boundary	tal Survey			
Esri World Imagery					
0 200 400					
American Transu a subsidiary of FirstError	mission Systems, Inc.	Washington-Kilgore (Po 138kV Transmission Rebuild Projec	olo Road) 1 Line t		
FIGURE 3-19 DELINEATED FEATURES MAP					
DATE: 6/6/2024		Jacob	25		







































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Washington-Kilgore (Polo Road) 138kV Transmission Line Rebuild Project

Jacobs

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# LEGEND:



































Appendix B USACE Wetland Determination Field Data Forms

Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-01
Investigator(s): MJA	_ Section, Township, Range: S23 T14N R5W	
Landform (hillslope, terrace, etc.): Floodplain	ocal relief (concave, convex, none):	Slope (%): 0-2
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.62406	Long: -81.04312	Datum: NAD 83
Soil Map Unit Name: Sb: Sebring silt Ioam	NWI clas	sification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes X No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstance	es" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any and	swers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transe	cts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	X X X	No No No	Is the Sampled Area within a Wetland?	Yes _	x	No
Remarks:							
PEM wetland in floodplain of Pipe Run.	Former II	D W-TI	MQ-542018-5.				

Wetland Hydrology Indicators:         Seconda	ry Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surf	ace Soil Cracks (B6)
X Surface Water (A1) True Aquatic Plants (B14) Spa	sely Vegetated Concave Surface (B8)
X High Water Table (A2) Hydrogen Sulfide Odor (C1) Drai	nage Patterns (B10)
X Saturation (A3) X Oxidized Rhizospheres on Living Roots (C3) Mos	s Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-	Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Cray	fish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7) Satu	ration Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stur	ted or Stressed Plants (D1)
Iron Deposits (B5) X Geo	morphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Sha	low Aquitard (D3)
Water-Stained Leaves (B9) Micr	otopographic Relief (D4)
Aquatic Fauna (B13)	-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches): 1	
Water Table Present? Yes X No Depth (inches): 2	
Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology	/ Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

HYDROLOGY

Sampling Point: Wetland WP-01

	Absolute Do	minant Indi	icator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	<u>% Cover</u> Sp	becies? St	<u>tatus</u>	Number of Dominant Species That Are OPL EACIM or EAC: $2$ (A)
1				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
6				Prevalence Index worksheet:
7				
	= To	otal Cover		
50% of total cover:	20% of tota	al cover:		OBL species $30$ $x_1 = 30.0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species70 x 2 =140.0
1.				FAC species <u>3</u> x 3 = <u>9.0</u>
2				FACU species $0 \times 4 = 0.0$
Z				$  P  _{\text{species}} = 0 \qquad \text{y} = 5 - 0.0$
3				Column Tatala $163$ (A) $239.0$ (D)
4				Column Totals: $(A) = 200.0$ (B)
5				Prevalence Index = $B/A = 1.50$
o				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				$\frac{1}{2} = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 =$
	= To	otal Cover		3 - 100 Morphological Adoptations <sup>1</sup> (Dravide supporting
50% of total cover:	20% of tota	al cover:		4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sneet)
1. Phalaris arundinacea	60	F.	ACW	Problematic Hydrophytic Vegetation' (Explain)
2 Onoclea sensibilis	10	E.	ACW	
3 Typha latifolia	20	(	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
A Carex crinita			OBI	be present, unless disturbed or problematic.
- Schoenonlectus tabernaemontani				Definitions of Four Vegetation Strata:
5. Schoenopiectus tabernaemontam				<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6. Toxicodendron radicans			FAC	more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub Woody plants evoluting vines loss
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				
	163 <sub>– To</sub>	atal Cover		of size, and woody plants less than 3 28 ft tall
50% of total cover: 82	20% of tota	al cover 33		
Woody Vine Stratum (Plot size: 30	2070 01 1012			Woody vine – All woody vines greater than 3.28 ft in
				height.
l				
2				
3				
4				Hydrophytic
5				Vegetation
	= To	otal Cover		Present? Yes X No
50% of total cover:	20% of tota	al cover:		
Remarks: (Include photo numbers here or on a separate	sheet )			

I

## SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	r confirn	n the absence of in	dicators.)	
Depth	Matrix		Redox	Features	S				
(inches)	Color (moist)		Color (moist)		Type'		Texture	Remarks	
0 - 8	10YR 3/2	95	7.5YR 4/6	5	Concen	PL	Silty loam		
8 - 16	10YR 4/2	85	7.5YR 4/6	15	Concen	PL,M	Silty clay loam		
-									
							·		
					·		<u> </u>		
							. <u> </u>		
-							<u> </u>		
-									
-									
							·		
·					·				
-				<u> </u>	. <u> </u>				
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=Por	e Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators	for Problematic Hy	dric Soils":
Histosol	(A1)		Dark Surface	(S7)			2 cm N	luck (A10) (MLRA 1	47)
Histic Ep	apedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) (MI	LRA 147,	, 148) Coast	Prairie Redox (A16)	
	slic (A3) n Sulfide (A1)			lace (59) 4 Matrix (	(IVILKA 14 E2)	+7, 140)	(IVIL) Piedmo	A 147, 140)	(E10)
Stratified	Lavers (A5)		Depleted Mat	rix (E3)	12)		(MI)	RA 136, 147)	(113)
2 cm Mu	ck (A10) <b>(LRR N)</b>		X Redox Dark S	Surface (F	6)		Verv S	hallow Dark Surface	e (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Darl	< Surface	(F7)		Other (	Explain in Remarks	)
Thick Da	rk Surface (A12)		Redox Depres	ssions (Fa	8)				
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(L</b>	RR N,			
MLRA	147, 148)		MLRA 136	5)			2		
Sandy G	leyed Matrix (S4)		Umbric Surfac	ce (F13) <b>(</b>	MLRA 136	5, 122)	Indicator	s of hydrophytic vec	jetation and
Sandy R	edox (S5)		Piedmont Floo	odplain S	oils (F19) <b>(</b>	MLRA 14	48) wetland	hydrology must be j	present,
Stripped	Matrix (56)		Red Parent M	ateriai (F	21) (IVILRA	127, 14	() unless d	isturbed or problem	atic.
Tunoi	ayer (il observed):								
Type:								X X X	N
Depth (inc	nes):						Hydric Soil Pres	ent? Yes <u>^</u>	NO
Remarks:									

Wetland WP-01





Soil





W



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-01
Investigator(s): MJA	Section, Township, Range: S23 T14N R5W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Convex	Slope (%): <u>5-10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.62404	Long: <u>-81.04314</u>	Datum: NAD 83
Soil Map Unit Name: Sb: Sebring silt loam	NWI class	sification: N/A
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes X No (If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	/ problematic? (If needed, explain any ans	wers in Remarks.)
	to a second to a start to set to a start second	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>X</u> No <u>X</u> No <u>X</u>	_	Is the Sampled Area within a Wetland?	Yes	No
Remarks:						
Upland point on routinely mowed hill slo	pe.					

HYDR	OLOGY
------	-------

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

Sampling Point: Upland WP-01

20	Absolute Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	<u>% Cover Species?</u>	Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3			Species Across All Strata: 2 (B)
4.			
5			Percent of Dominant Species
6			That Are OBL, FACW, of FAC: (A/B)
0	· ·	······	Prevalence Index worksheet:
<i>I</i>			Total % Cover of: Multiply by:
	= Total Cove	er	OBL species $0$ $x = 0.0$
50% of total cover:	20% of total cover:		$E_{ACW}$ species 15 x 2 - 30.0
Sapling/Shrub Stratum (Plot size: 15 )			$\frac{40}{1200}$
1		<u> </u>	FAC species $10^{\circ}$ $x_3 = 1200^{\circ}$
2	·		FACU species $100$ x 4 = $400.0$
3			UPL species $0 \times 5 = 0.0$
4.			Column Totals: <u>155</u> (A) <u>550.0</u> (B)
5.			5
6			Prevalence Index = B/A =
7			Hydrophytic Vegetation Indicators:
· ·			No 1 - Rapid Test for Hydrophytic Vegetation
8	- <u> </u>	<u> </u>	No 2 - Dominance Test is >50%
9		<u> </u>	<u>No</u> 3 - Prevalence Index is $\leq 3.0^{1}$
	= Total Cove	ər	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )			$N_0$ Problematic Hydrophytic V/ggetation <sup>1</sup> (Evplain)
1. Toxicodendron radicans	40	FAC	
2. Rubus allegheniensis	15	FACU	1
3. Anthoxanthum odoratum	60	FACU	Indicators of hydric soil and wetland hydrology must
4. Solidago canadensis	25	FACU	Definitions of Four Vanctation Strates
5 Phalaris arundinacea	15	FACW	Definitions of Four Vegetation Strata:
6			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0	· ·		more in diameter at breast height (DBH), regardless of
/	<u> </u>	······	height.
8		<u> </u>	Sapling/Shrub – Woody plants, excluding vines, less
9			than 3 in. DBH and greater than or equal to 3.28 ft (1
10			m) tall.
11	<u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	155 = Total Cove	ər	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 78	20% of total cover:	31	Weady vine All woody vines greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30 )			height.
1			
2.			
3.			
4			
			Hydrophytic
- J			Present? Yes No X
E0% of total covery		er	
	20% of total cover.		
Remarks: (Include photo numbers here or on a separate :	sheet.)		

Profile Desc	ription: (Describe t	o the depth	n needed to docum	nent the indic	ator or co	nfirm the	absence of indicate	ors.)	
Depth	Matrix		Redo	x Features	1.	2 -		- ·	
(inches)			Color (moist)	<u>%</u> Iy	pe Loo	<u>c  </u>	exture	Remarks	
0 - 4	101R 4/4	100				L			
4 - 16	10YR 4/4	100		<u> </u>		Cla	ay loam		
-									
							,		,
					·				
-									
-									
-									
-									
1						2.			
Type: C=Co	ncentration, D=Depl	etion, RM=H	Reduced Matrix, MS	S=Masked San	id Grains.	-Lo	cation: PL=Pore Lini	ng, M=Matrix	vdric Soils <sup>3</sup> :
Hyunc Son I			Dorle Surface						
Histic En	(AT) bipedon (A2)		Polyvalue Be	low Surface (S	(MI RA	147, 148	Coast Prairie		147)
Black His	stic (A3)		Thin Dark Su	rface (S9) (ML	.RA 147. 1	48)	(MLRA 14	7. 148)	·
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F2)		,	Piedmont Flo	odplain Soils	(F19)
Stratified	Layers (A5)		Depleted Ma	trix (F3)			(MLRA 13	6, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6)			Very Shallow	Dark Surface	e (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface (F7)			Other (Expla	in in Remarks	5)
Thick Da	ark Surface (A12)		Redox Depre	essions (F8)					
	147 148)	KK N,	MIRA 13	ese masses (F 6)	12) <b>(LKK I</b>	IN,			
Sandy G	leved Matrix (S4)		Umbric Surfa	ce (F13) <b>(MLR</b>	A 136, 12	2)	<sup>3</sup> Indicators of h	vdrophytic ve	netation and
Sandy R	edox (S5)		Piedmont Flo	odplain Soils (	F19) <b>(MLR</b>	_, RA 148)	wetland hydro	logy must be	present,
Stripped	Matrix (S6)		Red Parent N	/laterial (F21) <b>(</b>	MLRA 127	7, 147)	unless disturb	ed or problem	natic.
Restrictive L	ayer (if observed):								
Туре:									
Depth (inc	ches):					Hy	vdric Soil Present?	Yes	X
Remarks:						1			

Upland WP-01





Soil





Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-02
Investigator(s):	Section, Township, Range: S23 T14N R5W	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): <u>Convex</u>	Slope (%):2
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.592	41 Long: <u>-81.09258</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI clas	sification:
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes X No (If no, explain i	in Remarks.)
Are Vegetation, Soil, or Hydrology signi	ficantly disturbed? Are "Normal Circumstance	es" present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic? (If needed, explain any and	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:			

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         X Saturation (A3)       X Oxidized Rhizospheres on Living F         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled So         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)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Saturation Present?       Yes       No       Depth (inches)         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No
Saturation Present?       Yes       No       Depth (inches)         Saturation Present?       Yes       No       Depth (inches)         (includes capillary fringe)        Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No

Sampling Point: Wetland WP-02

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
2				
3				Total Number of Dominant       Species Across All Strata:       1       (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0% (A/B)
6				Prevalence Index worksheet:
1			·	Total % Cover of: Multiply by:
		= Total Cove	er	$\frac{1}{1} \frac{1}{1} \frac{1}$
50% of total cover:	20% of	total cover:		$\frac{40}{2} \times 1 = \frac{800}{2}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x_2 = 0$
1				FAC species $0 \times 3 = 0.0$
2.				FACU species $5   x 4 = 20.0$
2				UPL species $0 \times 5 = 0.0$
۵ ۵				Column Totals: 110 (A) 165.0 (B)
5				Prevalence index = $B/A = 1.50$
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8.				
9.				$\frac{1}{1}$ 2 - Dominance Test is >50%
		= Total Cove	er	$\frac{165}{100}$ 3 - Prevalence Index is $\leq 3.0^{\circ}$
50% of total cover:	20% of	total cover:		4 - Molphological Adaptations (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )				data in Remarks or on a separate sneet)
1. Symplocarpus foetidus	60	Yes	OBL	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Impatiens capensis	20	No	FACW	
3. Carex bromoides	20	No	FACW	Indicators of hydric soil and wetland hydrology must
4. Cardamine bulbosa	5	No	OBL	Definitions of Four Verstation Strates
5. Galium aparine	5	No	FACU	Definitions of Four vegetation Strata:
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7	_			more in diameter at breast height (DBH), regardless of height
8	_			
9	_			<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10.				m) tall.
11.				Herb All borbassous (non woody) planta regardless
	110	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of	total cover:	22	
Woody Vine Stratum (Plot size: 30 )				height.
1				
2		<u> </u>	<u> </u>	
3				
4				Hydrophytic
5				Vegetation
		= Total Cove	er	Present? Yes X No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			
······				

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## SOIL

Profile Desc	ription: (Describe t	o the dept	h needed to docum	ent the i	ndicator o	r confirn	n the absence of indicators.)	
Depth	Matrix		Redox	Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 8	10YR 3/2	85	5YR 3/3	15	Concen	M,PL	Clay loam	
8 - 18	10YR 5/2	70	10YR 3/4	30	Concen	Μ	Clay loam	
-								
-		·						
-								
		·						
		· ·		·				
		·					·	
		<u> </u>						
-								
-							·	
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=l	Reduced Matrix, MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils	s <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b> I	LRA 147,	148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 14	17, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Piedmont Floodplain Soils (F19)	
Stratified	l Layers (A5)		Depleted Mat	rix (F3)			(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Darl	k Surface	(F7)		Other (Explain in Remarks)	
Thick Da	rk Surface (A12)		Redox Depres	ssions (F	8)			
Sandy M	lucky Mineral (S1) (L	RR N.	Iron-Mangane	se Mass	, es (F12) <b>(L</b>	RR N,		
MLRA	147, 148)			5)	· / ·	-		
Sandv G	leved Matrix (S4)		Umbric Surfac	, ce (F13) <b>(</b>	<b>MLRA 136</b>	5. 122)	<sup>3</sup> Indicators of hydrophytic vegetation an	d
Sandy R	edox (S5)		Piedmont Flo	odolain S	oils (F19) (	,, MLRA 14	<ul><li>wetland hydrology must be present.</li></ul>	
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 14	7) unless disturbed or problematic.	
Restrictive L	ayer (if observed):				, ,			
Туре:								
Depth (inc	ches):						Hydric Soil Present? Yes X No	
Remarks:							1	

Wetland WP-02









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Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-02
Investigator(s): JFW	Section, Township, Range: S23 T14N R5W	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): Convex	Slope (%): 2
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.59241	Long: -81.09259	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI class	ification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturall	y problematic? (If needed, explain any ans	wers in Remarks.)

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

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

#### HYDROLOGY

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

Sampling Point: Upland WP-02

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2.				
3				Total Number of Dominant
		·		Species Across All Strata (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50% (A/B)
6				December of the december of the set
7				Prevalence Index worksneet:
	=	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species 0 x 1 = 0.0
Sapling/Shrub Stratum (Plot size: 15		<u>-</u>		FACW species $0   x^2 = 0.0$
				EAC species $40 \times 3 = 120.0$
1		<u> </u>		$\frac{1}{10000000000000000000000000000000000$
2				$\begin{array}{c} \text{FACU species} \\ \hline \end{array} \\ \hline x 4 = \underline{\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $
3				UPL species $0 \times 5 = 0.0$
4.				Column Totals: <u>122</u> (A) <u>448.0</u> (B)
5				0.70
3				Prevalence Index = $B/A = \frac{3.70}{2}$
б				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				$N_0$ 2 Deminance Test is $> 50\%$
9.				
		- Total Cove		$3$ - Prevalence Index is $\leq 3.0^{\circ}$
E0% of total cover	=	total cover	51	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% OF IOIAL COVER.	20% 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>5</u> )	_			No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Podophyllum peltatum	5	No	FACU	
2. Rosa multiflora	5	No	FACU	4
3. Schedonorus arundinaceus	70	Yes	FACU	'Indicators of hydric soil and wetland hydrology must
Dichanthelium clandestinum	40	Yes	FAC	be present, unless disturbed of problematic.
- Galium anarine	2	No	FACIL	Definitions of Four Vegetation Strata:
5. Calian apanne			1700	<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
3				m) tall
10		<u> </u>		
11				Herb – All herbaceous (non-woody) plants, regardless
	122 =	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>61</u>	20% of	total cover:	24	Weedy vine All weedy vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30 )				beight
1				- Holght
··				
Z		<u> </u>		
3				
4				Hydrophytic
5				Vegetation
	=	= Total Cove	ər	Present? Yes No X
50% of total cover:	20% of	total cover:		
Pomarke: (Include photo numbers here or on a congrate	shoot)	<u>-</u>		
Remarks. (include prioto numbers here of on a separate	sneet.)			

l

)epth	Matrix	0/	Redo	<u>x Features</u>	L a a <sup>2</sup>	Tautura		Demendue	
inches)			Color (moist)	<u>   %                                 </u>	LOC			Remarks	
0 - 6	101R 4/3	100				Silly clay			
6 - 18	10YR 5/4	100				Silty clay			
-									
-									
						<u> </u>			
-									
-									
-									
_									
-									
-									
ype: C=Cc	oncentration, D=Depl	etion, RM=	=Reduced Matrix, M	S=Masked Sand G	rains.	<sup>2</sup> Location: PL	.=Pore Linii	ng, M=Matrix.	
dric Soil I	ndicators:					Indica	tors for Pr	oblematic Hy	dric Soils <sup>3</sup>
Histosol	(A1)		Dark Surface	e (S7)		2	cm Muck (A	(10) <b>(MLRA 1</b>	47)
_ Histic Ep	ipedon (A2)		Polyvalue Be	elow Surface (S8) (	MLRA 147	, <b>148)</b> Co	oast Prairie	Redox (A16)	
Black His	stic (A3)		Thin Dark St	urface (S9) (MLRA	147, 148)		(MLRA 14	7, 148)	
_ Hydroger	n Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Pi	edmont Flo	odplain Soils	(F19)
_ Stratified	Layers (A5)		Depleted Ma	atrix (F3)			(MLRA 13	6, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6)		Ve	ery Shallow	Dark Surface	(TF12)
_ Depleted	Below Dark Surface	e (A11)	Depleted Da	rk Surface (F7)		O	ther (Explai	n in Remarks)	1
_ Thick Da	rk Surface (A12)		Redox Depr	essions (F8)					
_ Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangar	nese Masses (F12)	(LRR N,				
MLRA	147, 148)		MLRA 13	36)					
_ Sandy G	leyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(MLRA 1</b>	36, 122)	<sup>3</sup> Indi	cators of hy	drophytic veg	etation and
_ Sandy R	edox (S5)		Piedmont Fl	oodplain Soils (F19	(MLRA 14	<b>48)</b> wet	land hydro	ogy must be p	oresent,
_ Stripped	Matrix (S6)		Red Parent	Material (F21) (MLF	RA 127, 14	<b>7)</b> unl	ess disturb	ed or problem	atic.
estrictive L	ayer (if observed):								
Туре:									
Depth (inc	:hes):					Hydric Soil	Present?	Yes	NoX
						-			

Upland WP-02



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point:
Investigator(s): JFW	Section, Township, Range: S23 T14N R5W	1
Landform (hillslope, terrace, etc.): Floodplain	_ Local relief (concave, convex, none): <u>Concave</u>	e Slope (%): <u>10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.59240	Long: -81.09257	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI cla	ssification:
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, explain	n in Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal Circumstanc	ces" present? Yes X No
Are Vegetation, Soil, or Hydrology natural	lly problematic? (If needed, explain any an	nswers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         X         No           Yes         X         No           Yes         X         No	Is the Sampled Area within a Wetland?	YesX No
Remarks:			

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B14)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Vater Anks (B1)</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Other (Explain in Remarks)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X EAC Neutral Toot (D5)</li> </ul>
Aqualic Faulia (BTS)	
Surface Water Present? Yes No _X Depth (inches):	
Water Table Present?       Yes X       No Depth (inches): 0         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No

Sampling Point: Wetland WP-03

	Absolute	Dominant I	ndicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC: (A)		
2						
2				Total Number of Dominant		
3	·	·		Species Across All Strata: (B)		
4		. <u> </u>	<u> </u>	Percent of Dominant Species		
5				That Are OBL, FACW, or FAC: 100% (A/B)		
6	. <u> </u>					
7.				Prevalence Index worksheet:		
		- Total Cove	r	Total % Cover of: Multiply by:		
50% of total cover:	20% of	total cover:	*1	OBL species 0 x 1 = 0.0		
Conting (Chryth Ctratum (Dist sing) 15	2070 01	10101 00101.		FACW species $85 \times 2 = 170.0$		
Sapling/Shrub Stratum (Plot size: 19				$EAC species = \frac{15}{15} \times 3 = \frac{45.0}{15}$		
1		<u> </u>	·	$\begin{array}{c} \text{FAC species} \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \\ \\ \hline \\ \\ \\ \\ \\ \hline \\$		
2				FACU species $3 \times 4 = 20.0$		
3.				UPL species $0 \times 5 = 0.0$		
4				Column Totals: <u>105</u> (A) <u>235.0</u> (B)		
D	·	·		Prevalence Index = B/A = 2.20		
6		. <u> </u>	<u> </u>	Hydrophytic Vegetation Indicators:		
7				Yes 1 - Rapid Test for Hydrophytic Vegetation		
8				Ves 2 Deminence Test is 50%		
9						
···-		Total Cove		Yes 3 - Prevalence Index is ≤3.0		
E0% of total cover	200/ of	total cover:	;1	<u>No</u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting		
50% of total cover.	20% 01	total cover.		data in Remarks or on a separate sheet)		
Herb Stratum (Plot size: <u>3</u> )				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
1. Phalaris arundinacea	80	Yes	FACW			
2. Impatiens capensis	5	No	FACW	1		
3. Clematis virginiana	10	No	FAC	Indicators of hydric soil and wetland hydrology must		
A Rosa multiflora	5	No	FACU	be present, unless disturbed or problematic.		
- Epilobium ciliatum	5	No	FAC	Definitions of Four Vegetation Strata:		
5. Epilobidin ciliatani			140	<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or		
6			. <u> </u>	more in diameter at breast height (DBH), regardless of		
7	. <u> </u>			height.		
8.						
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less		
40				m) tall		
10	·		<u> </u>			
11				Herb – All herbaceous (non-woody) plants, regardless		
	105	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.		
50% of total cover: <u>53</u>	50% of total cover: 53 20% of total cover: 21			Weedy vine All weedy vince greater than 2.20 ft in		
Woody Vine Stratum (Plot size: <u>30</u> )				height.		
1.				- Holgin.		
2	·					
2						
3	·	<u> </u>				
4			. <u> </u>	Hydrophytic		
5	<u> </u>			Vegetation		
		= Total Cove	er	Present? Yes X No		
50% of total cover:	20% of	total cover:				
Remarks: (Include photo numbers here or on a separate	sheet )	_				
	511000.7					

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## SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 4	10YR 3/2						Silty clay loam	
4 - 6	10YR 4/1		10YR 5/8				Silty clay loam	
								—
								—
-								
-								
-								
								—
-								
-								
-								
<sup>1</sup> Type: C=Co	oncentration, D=Depleti	on, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils':	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(M</b>	LRA 147,	148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		X Depleted Ma	rix (F3)	2)		(MLRA 136, 147)	
2 cm iviu	CK (A1U) <b>(LKK N)</b> I Bolow Dork Surface (/	(11)	Redox Dark 3	Surface (Fi	) (E7)		Very Shallow Dark Surface (TF12)	
Depieted	a Delow Dark Suilace (A	(11)	Depleted Dat					
Sandy M	lucky Mineral (S1) <b>/I RE</b>	N	Iron-Mangan	ssions (no sed Masse	') is (F12) <b>(I</b>	RRN		
	147, 148)		MIRA 13	6)	.5 (1 12) <b>(</b> 1	,		
Sandy G	leved Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	<ul><li>8) wetland hydrology must be present.</li></ul>	
Stripped	Matrix (S6)		Red Parent N	laterial (F2	21) (MLR	、 A 127, 147	") unless disturbed or problematic.	
Restrictive L	ayer (if observed):				, (			
Type: Be	drock							
Depth (inc	ches): <u>6.0</u>		_				Hydric Soil Present? Yes X No	
Remarks:								




Wetland WP-03



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-04
Investigator(s): JFW	Section, Township, Range: <u>S22 T14N R5W</u>	
Landform (hillslope, terrace, etc.):	_ Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.59241	Long: -81.09259	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI clas	sification:
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? Are "Normal Circumstance	es" present? Yes X No
Are Vegetation, Soil, or Hydrology natura	Ily problematic? (If needed, explain any and	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland? YesX	
Remarks:			

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
X High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
X Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes X No Depth (inches): 4	
Saturation Present? Yes X No Depth (inches): 0 Wetland	Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if av	railable:
Remarks:	

Sampling Point: Wetland WP-04

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2.				
3				I otal Number of Dominant Species Across All Strata: 2 (B)
4				
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet
7				
		= Total Cove	er	<u> </u>
50% of total cover:	20% of	total cover:		$OBL species \underline{\qquad \qquad } 00 x 1 = \underline{\qquad \qquad } 000 x 1 = \underline{\qquad \qquad } 000 x 1 = \underline{\qquad \qquad } 000 x = \underline{\qquad \qquad } 0000 x = \underline{\qquad \qquad } 000 x = \underline{\qquad \qquad \qquad } 000 x = \underline{\qquad \qquad } $
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $60   x^2 = 120.0$
1				FAC species20 x 3 =60.0
2				FACU species 10 x 4 = 40.0
3	·			UPL species 0 x 5 = 0.0
3				Column Totals: 140 (A) 270.0 (B)
4	- <u></u>			
5	. <u> </u>			Prevalence Index = $B/A = 1.90$
6	·			Hydrophytic Vegetation Indicators:
7	·			Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Tost is >50%
9				$\sum_{i=1}^{n} 2 = Dutilitative Test is >00\%$
		= Total Cove	er.	$\frac{1}{2}$ 3 - Prevalence Index is $\leq 3.0^{\circ}$
50% of total cover:	20% of	total cover:		<u>No</u> 4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5	20/001			data in Remarks or on a separate sheet)
A Juncus effusus	20	No	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Carox atingto	E0	Vee		
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Onociea sensibilis	10	<u> </u>	FACW	be present, unless disturbed or problematic.
4. Clematis virginiana	10	No	FAC	Definitions of Four Vegetation Strata:
5. Rosa multiflora	10	No	FACU	
<sub>6.</sub> Valerianella radiata	10	No	FAC	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Phalaris arundinacea	30	Yes	FACW	more in diameter at breast height (DBH), regardless of beight
8				noight.
0	·			Sapling/Shrub – Woody plants, excluding vines, less
9	·			than 3 in. DBH and greater than or equal to 3.28 ft (1
10	·		<u> </u>	III) tali.
11	·			Herb – All herbaceous (non-woody) plants, regardless
	140	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>70</u>	20% of	total cover:	28	<b>Woody vine</b> – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3.				
4				
				Hydrophytic
- 5				Present? Yes X No
<b>500</b> ( - ( )	000/ - (	= Total Cove	er	
	20% 01	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

## SOIL

Profile Desc	ription: (Describe t	o the dept	n needed to docun	nent the i	ndicator o	r confiri	n the absence of indicators.)	
Depth	Matrix		Redo	x Features	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 14	10YR 3/2	90	5YR 3/4	10	Concen	М	Clay loam	
14 - 18	Gley 1 4/10Y	70	10YR 5/8	30	Concen	М	Silty clay	
-								
-								
-								
		<u> </u>		·				
-								
-								
-								
-								
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=I	Reduced Matrix, MS	S=Masked	I Sand Grai	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:		, ,			-	Indicators for Problematic Hydric Soils <sup>3</sup>	·:
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b> I	LRA 147	, 148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9)	) <b>(MLRA 1</b> 4	17, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)			(MLRA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>	( <b>.</b>	Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)	
Thick Da	irk Sufface (A12)		Redox Depre	ssions (F	8) aa (F12) <b>(</b> I			
Sandy M	147, 148)	KK N,	ITON-Mangane	6)	es (F12) <b>(L</b>	KK N,		
Sandy G	leved Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MI RA 136	122)	<sup>3</sup> Indicators of hydrophytic vegetation and	1
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) (	MLRA 1	48) wetland hydrology must be present.	•
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 14	<ul><li>7) unless disturbed or problematic.</li></ul>	
Restrictive L	ayer (if observed):				/ (	,	,	
Туре:								
Depth (inc	ches):						Hydric Soil Present? Yes X No	
Remarks:							1	

Wetland WP-04









W



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll Coun	ity	_ Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland WP-03,04
Investigator(s): JFW	Section, Township, Range	e: S23 T14N R5W	· -
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex	, none): <u>Concave</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.3	59240 Long: _	-81.09259	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s61	21)	NWI classifi	cation:
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X No	(If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed? Are "No	rmal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology r	aturally problematic? (If need	ed, explain any answ	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	X
Remarks:							

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

Sampling Point: Upland WP-03,04

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Deminant
3.				Species Across All Strata: 3 (B)
4				
5				Percent of Dominant Species
<u> </u>				That Are OBL, FACW, or FAC: (A/B)
6		·······	·	Prevalence Index worksheet:
7		. <u> </u>		Total % Cover of: Multiply by:
		= Total Cove	er	
50% of total cover:	20% of	total cover:		$\frac{1}{2} = \frac{1}{2} = \frac{1}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 0.0$
1. Rosa multiflora	40	Yes	FACU	FAC species $0   x 3 = 0.0$
2.				FACU species <u>145</u> x 4 = <u>580.0</u>
3				UPL species x 5 =0.0
4				Column Totals: 145 (A) 580.0 (B)
4				
5				Prevalence Index = $B/A = 4.00$
6	·			Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				$N_{0}$ 2 Dominance Test is >50%
9.				$\frac{10}{10}$ 2 - Dominance rest is $>00\%$
	40	= Total Cove	<u>ə</u> r	$\frac{100}{3}$ 3 - Prevalence index is $\leq 3.0^{\circ}$
50% of total cover: 20	20% of	total cover:	20	No 4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
A Poa annua	40	Yes	FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Relyctichum acrostichaidea		No	EACU	
2. Polystichum acrostichoides			FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Solidago canadensis	30	Yes	FACU	be present, unless disturbed or problematic.
4. Taraxacum officinale	5	No	FACU	Definitions of Four Vegetation Strata:
5. Rosa multiflora	10	No	FACU	
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of beight
0				noight.
0			·	Sapling/Shrub – Woody plants, excluding vines, less
9	·			than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	105	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>53</u>	20% of	total cover:	21	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2.				
3				
A				
				Hydrophytic
5				Vegetation Present? Yes No X
		= Total Cove	er	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

Profile Desc	ription: (Describe to	o the dept	h needed to docun	nent the i	indicator o	r confirr	m the absence of indicators.)	
Depth	Matrix		Redox	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 3	10YR 4/3	100					Clay loam	
3 - 18	10YR 5/4	80	10YR 5/8	20	Concen	М	Clay loam	
-								
							· ·	
-							· ·	
-								
-								
							· ·	
							·	
-							· · · · · · · · · · · · · · · · · · ·	
-								
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Grai	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup>	:
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfa	ice (S8) <b>(M</b> I	LRA 147	7, 148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9	) (MLRA 14	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	(F2)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)			(MLRA 136, 147)	
2 cm Mu	ICK (A10) <b>(LRR N)</b> d Balaw Dark Surface	( \ 4 4 \	Redox Dark S	Surface (F	-6) \(F7)		Very Shallow Dark Surface (TF12)	
Depieted	ark Surface (A12)	(ATT)		ssions (F	; ( <i>Г1)</i> 8)			
Sandy M	lucky Mineral (S1) (L	RR N.	Iron-Mangane	ese Mass	es (F12) <b>(</b> L	RR N.		
MLRA	A 147, 148)	,	MLRA 130	6)		,		
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	, ce (F13)	(MLRA 136	5, <b>122</b> )	<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	MLRA 1	48) wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 14	(7) unless disturbed or problematic.	
Restrictive I	_ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil Present? Yes NoX	_
Remarks:							-	

Upland WP-03,04





Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-05
Investigator(s): JFW	Section, Township, Range: S22 T14N R5W	
Landform (hillslope, terrace, etc.): Floodplain	_ Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>0</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.61388	Long: -81.04304	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI clas	ssification:
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 signific	antly disturbed? Are "Normal Circumstance	es" present? Yes X No
Are Vegetation, Soil, or Hydrology natural	lly problematic? (If needed, explain any ar	nswers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         X         No           Yes         X         No           Yes         X         No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:		-	

Wetland Hydrology Indicato	rs:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum	of one is required; chec	k all that apply)		Surface Soil Cracks (B6)	
Surface Water (A1)			Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	_	Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)	
X Saturation (A3)	_	Oxidized Rhizospheres on Living	Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1)	_	Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)	
Sediment Deposits (B2)	_	Recent Iron Reduction in Tilled Sc	oils (C6)	Crayfish Burrows (C8)	
Drift Deposits (B3)	_	Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)	
Iron Deposits (B5)				X Geomorphic Position (D2)	
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aquitard (D3)	
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)	
Aquatic Fauna (B13)				X FAC-Neutral Test (D5)	
Field Observations:					
Surface Water Present?	Yes <u>No X</u>	_ Depth (inches):			
Water Table Present?	Yes <u>No X</u>	_ Depth (inches):			
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _X Yes _X No	_ Depth (inches): _ Depth (inches):8	Wetland H	lydrology Present? Yes X No	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree	Yes <u>No X</u> Yes <u>X</u> No <u>am gauge, monitoring v</u>	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspect	Wetland H	lydrology Present? Yes X No	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>No X</u> Yes X No	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspect	Wetland H tions), if ava	lydrology Present? Yes X No	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes X No <u></u> am gauge, monitoring Y	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspect	Wetland H tions), if ava	lydrology Present? Yes X No	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes X No <u></u>	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes X No <u></u>	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No ilable:	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>X</u> No <u>X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No ilable:	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No ilable:	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No ilable:	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No ilable:	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No ilable:	
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	_ Depth (inches): _ Depth (inches):8 well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No ilable:	

Sampling Point: Wetland WP-05

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Tatal Number of Device of
3.				Species Across All Strata: 2 (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet
7				
		= Total Cove	er	
50% of total cover:	20% of	total cover:		OBL species $20$ $x = 20.0$
Sapling/Shrub Stratum (Plot size: <sup>15</sup> )				FACW species $x_2 = 170.0$
1 Rosa multiflora	10	Yes	FACU	FAC species x 3 =0.0
··	·			FACU species 10 $x 4 = 40.0$
Z				$  \mathbf{P}  _{\text{species}} = 0 \qquad \text{x.5} = 0.0$
3				$300 = \frac{115}{2300}$
4				Column Lotals: $(A) = 200.0$ (B)
5				Prevalence Index = $B/A = 2.00$
6				Hydrophytic Vegetation Indicators:
7				Nº 1 - Rapid Test for Hydrophytic Vegetation
8				No. 0. Derpierree Test is 50%
9				$\frac{100}{2}$ 2 - Dominance Test is >50%
	10	- Total Cove	-r	$^{\text{Yes}}$ 3 - Prevalence Index is $\leq 3.0^{\circ}$
50% of total cover: 5	20% of	total cover:	5	No 4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
A Phalaris arundinacea	60	Yes	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	20	No	OBI	
	5	No		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		No		be present, unless disturbed or problematic.
4. Impatiens caperisis	10		FACW	Definitions of Four Vegetation Strata:
5. Solidago gigantea	10	NO	FACW	<b>Trop</b> Woody plants, avaluding vinos, 2 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Conting (Chruch - Weachurgton auchurgton auchurgton a
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
· · · ·	105	Tatal Caur		Herb – All herbaceous (non-woody) plants, regardless
E0% of total anyon 53	20% of	= Total Cove	er 21	or size, and woody plants less than 3.26 it tall.
	20% 01	total cover.	21	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3.				
4.				
5				Hydrophytic
		Tatal Original		Present? Yes X No
	000/ ={		er	
	20% 01	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

L

Depth	Matrix		Redo	ox Feature	S			
inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
0 - 18	10YR 5/1	80	5YR 5/8	20	Concen	М	Silty clay loam	
-								
-								
-								
-								
-								
-								
-								
-								
	ncontration D-Don	lation PM-	Poducod Matrix M	S-Mackor	d Sand Gra	inc	<sup>2</sup> Location: PL	-Poro Liping M-Matrix
vdric Soil I	ndicators:						Indicat	ors for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			2 c	m Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polvvalue Be	elow Surfa	ce (S8) <b>(M</b>	LRA 147	. 148) Co	ast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark S	urface (S9	) (MLRA 14	47, 148)	, , <u> </u>	MLRA 147, 148)
	n Sulfide (A4)		Loamy Gley	ed Matrix (	(F2)		Pie	dmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Ma	atrix (F3)	, , ,			MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Ve	y Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Da	rk Surface	e (F7)		Oth	ner (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depr	essions (F	8)			
Sandy M	lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangar	nese Mass	es (F12) <b>(L</b>	.RR N,		
MLRA	<b>147, 148)</b>		MLRA 13	86)				
_ Sandy G	leyed Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 136	6, 122)	<sup>3</sup> Indic	ators of hydrophytic vegetation and
_ Sandy R	edox (S5)		Piedmont Fl	oodplain S	oils (F19) <b>(</b>	(MLRA 14	<b>48)</b> wetla	and hydrology must be present,
_ Stripped	Matrix (S6)		Red Parent	Material (F	21) (MLRA	A 127, 14	7) unle	ss disturbed or problematic.
estrictive L	ayer (if observed):							
Туре:								
Depth (inc	ches):						Hydric Soil P	resent? Yes X No
emarks:							1	





Soil



Project/Site: Washington-Polo Road - Phase 2	City/County:	Carroll County	_ Sampling Date: 04/30/24
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland WP-05
Investigator(s): JFW	Section, Towr	nship, Range: S22 T14N R5W	
Landform (hillslope, terrace, etc.):	Local relief (conc	ave, convex, none): <u>Flat</u>	Slope (%):_0
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.614	410	Long:81.04299	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121	)	NWI classifi	ication: R5UBH
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes X	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology sigr	nificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology nate	urally problematic?	(If needed, explain any answ	ers in Remarks.)

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

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

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

Sampling Point: Upland WP-05

22	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3.				Species Across All Strata: 3 (B)
4				
5				Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	er	$\frac{1}{1} \frac{1}{1} \frac{1}$
50% of total cover:	20% of	total cover:		$\begin{array}{c} \text{OBL species} \\ \hline \\ \hline \\ \end{array} \\ \hline \\ \end{array} \\ \hline \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \\ \end{array} \\ \hline \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \\ \end{array} \\ \hline \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \\ \end{array} \\ \hline \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \hline \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \text{OBL species} \\ \end{array} $ \\ \begin{array}{c} \text{OBL species} \\ \end{array} \\
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 0.0$
1				FAC species $10 \times 3 = 30.0$
2.				FACU species x 4 = 420.0
3				UPL species x 5 =0.0
а Л				Column Totals: 115 (A) 450.0 (B)
4				
0				Prevalence Index = $B/A = \frac{3.90}{1000}$
ΰ				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				Nº 2 - Dominance Test is >50%
9				$N_{0}$ 2 Dominance results 2007
	:	= Total Cove	er	$\frac{10}{10}$ 3 - Prevalence index is $\leq 3.0$
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
Cirsium arvense	40	Yes	FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Alliaria petiolata	20	Yes	FACU	
	10	No	EACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			FACU	be present, unless disturbed or problematic.
4. Glechoma hederacea	20	Yes	FACU	Definitions of Four Vegetation Strata:
5. Clematis virginiana	10	No	FAC	
6. Poa annua	10	No	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Allium canadense	5	No	FACU	height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
3				than 3 In. DBH and greater than or equal to 3.28 ft (1
10				11) tail.
11				Herb – All herbaceous (non-woody) plants, regardless
	115	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>58</u>	20% of	total cover:	23	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2.				
3.				
4				
				Hydrophytic
o				Vegetation Present? Yes No X
500/ / / /		= Iotal Cove	er	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

		. 2	-	
iches) Color (moist) %	Color (moist) % Type	Loc		Remarks
<u>- 12</u> 10YR 4/2 100			Clay loam	
-				
-				
<u> </u>				
-				
			·	
/pe: C=Concentration, D=Depletion, RN	1=Reduced Matrix, MS=Masked Sand G	rains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.
dric Soil Indicators:			Indicators to	or Problematic Hydric Soils
Histosol (A1)	Dark Surface (S7)		2 cm Mu	ck (A10) <b>(MLRA 147)</b>
Histic Epipedon (A2)	Polyvalue Below Surface (S8)	MLRA 147	, <b>148)</b> Coast Pr	airie Redox (A16)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA	147, 148)	(MLR)	A 147, 148)
_ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Piedmor	nt Floodplain Soils (F19)
_ Stratified Layers (A5)	Depleted Matrix (F3)		(MLR	A 136, 147)
_ 2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)		Very Sha	allow Dark Surface (TF12)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		Other (E	xplain in Remarks)
_ Thick Dark Surface (A12)	Redox Depressions (F8)			
Sandy Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12)	(LRR N,		
MLRA 147, 148)	MLRA 136)	>	3	
Sandy Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 1	36, 122)	Indicators	of hydrophytic vegetation and
Sandy Redox (S5)	Piedmont Floodplain Soils (F19	) (MLRA 14	(18) wetland h	ydrology must be present,
_ Stripped Matrix (S6)	Red Parent Material (F21) (ML	RA 127, 14	() Uniess dis	sturbed or problematic.
strictive Layer (if observed):				
Type: Clay				X
Depth (inches): <u>12.0</u>			Hydric Soil Prese	nt? Yes NoX
marks:			- ·	

Upland WP-05



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	1	_ Sampling Date: 04/30/24
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland WP-06
Investigator(s): JFW	Section, Township, Range:	S22 T14N R5W	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex,	none): <u>Concave</u>	Slope (%):2
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.608	330 Long:{	31.04309	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	)	NWI classif	ication:
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes X No	_ (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "Norr	nal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natu	Irally problematic? (If neede	d, explain any answ	ers in Remarks.)
		_	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
X High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
X Saturation (A3) Oxidized Rhizospheres on Living F	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled So	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches)	
Water Table Present?     Yes X     No Depth (inches):	
Water Table Present?     Yes X     No Depth (inches):       Saturation Present?     Yes X     No Depth (inches):       (includes capillary fringe)     Ves X     No	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       10         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       10         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       10         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes       X       No       Depth (inches):       10         Saturation Present?       Yes       X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 10         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)       Depth (inches): 0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 10         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       10         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       10         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches):         Saturation Present?       Yes X       No Depth (inches):         (includes capillary fringe)        Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches):         Saturation Present?       Yes X       No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches):         Saturation Present?       Yes X       No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No

Sampling Point: Wetland WP-06

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Deminent
3				Species Across All Strata: 2 (B)
۵				
4			·	Percent of Dominant Species
5			. <u> </u>	That Are OBL, FACW, or FAC:(A/B)
6				Drevelence Index werkeheet:
7				Prevalence index worksneet:
		= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species 0 x 1 = 0.0
Sapling/Shrub Stratum (Plot size: 15		·····		FACW species 110 $x 2 = 220.0$
Bubus allegheniensis	10	Ves	FACU	EAC species $0 \times 3 = 0.0$
1. Tubus alleghemensis		163	TACO	$\frac{10}{10} \times \frac{400}{10}$
2				FACU species $x 4 = 0.0$
3				UPL species $0 \times 5 = 0.0$
4.				Column Totals: <u>120</u> (A) <u>260.0</u> (B)
5				
3				Prevalence Index = $B/A = 2.20$
6			. <u> </u>	Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No. 2. Deminence Test is 50%
9				2 - Dominance Test is >50%
··	10	Total Cour		Yes 3 - Prevalence Index is ≤3.0'
FOOL of total accurs 5			5	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>5</u>	20% of	total cover:	5	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Scirpus cyperinus	80	Yes	FACW	
2. Onoclea sensibilis	15	No	FACW	
3 Impatiens capensis	5	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Solidado didantea	10	No	FACW	be present, unless disturbed or problematic.
4. <u></u>				Definitions of Four Vegetation Strata:
5				Tree Meedy plants evaluating vince 2 in (7.6 cm) or
6				more in diameter at breast beight (DBH), regardless of
7.				height.
8				
o				Sapling/Shrub – Woody plants, excluding vines, less
9	·			than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tail.
11				Herb – All herbaceous (non-woody) plants, regardless
	110	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 55	20% of	total cover:	22	
Woody Vine Stratum (Plot size: 30		-		<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				neight.
1	·			
2				
3				
4.				
5				Hydrophytic
o		Tatal O		Present? Yes X No
			er	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

eptn	Matrix		Redo	<u>x Feature</u>	<u>s</u>	. 2	<b>-</b> .		
nches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	<u>Type</u>	Loc		Remarks	
) - 14	10YR 4/1	85	7.5YR 4/6	15	Concen	M	Clay loam		
-									
-									
-							<u> </u>		
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ype: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=	Pore Lining, M=Matrix.	<b>0</b> 11 3
dric Soil I	ndicators:						Indicato	irs for Problematic Hydric	Solls
Histosol	(A1)		Dark Surface	e (S7)			2 cn	n Muck (A10) (MLRA 147)	
_ Histic Ep	ipedon (A2)		Polyvalue Be	elow Surfa	ce (S8) <b>(M</b>	LRA 147	, <b>148)</b> Coa	st Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark S	urface (S9	) (MLRA 14	47, 148)	()	/ILRA 147, 148)	
_ Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix (	F2)		Piec	Imont Floodplain Soils (F19	9)
_ Stratified	Layers (A5)		X Depleted Ma	trix (F3)			1)	/ILRA 136, 147)	
_ 2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)		Very	/ Shallow Dark Surface (TF	12)
_ Depleted	Below Dark Surfac	e (A11)	Depleted Da	rk Surface	e (F7)		Oth	er (Explain in Remarks)	
_ Thick Da	rk Surface (A12)		Redox Depr	essions (F	8)				
_ Sandy N	lucky Mineral (S1) <b>(I</b>	LRR N,	Iron-Mangar	ese Mass	es (F12) <b>(L</b>	.RR N,			
MLRA	. 147, 148)		MLRA 13	6)					
_ Sandy G	leyed Matrix (S4)		Umbric Surfa	ace (F13) (	(MLRA 136	5, <b>122)</b>	<sup>3</sup> Indica	tors of hydrophytic vegetati	ion and
Sandy R	edox (S5)		Piedmont Fl	oodplain S	oils (F19) <b>(</b>	MLRA 1	48) wetla	nd hydrology must be prese	ent,
_ Stripped	Matrix (S6)		Red Parent	Material (F	21) <b>(MLR</b> A	A 127, 14	7) unles	s disturbed or problematic.	
estrictive L	ayer (if observed):								
Type: Ro	ck								
Depth (ind	ches): <u>14.0</u>						Hydric Soil Pr	resent? Yes X N	o
marks							-		
sinuno.									





Wetland WP-06



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 04/30/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-06
Investigator(s): JFW	Section, Township, Range: S22 T14N R5W	
Landform (hillslope, terrace, etc.): Hillside	_ Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.60831	Long:81.04306	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI classi	fication:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances"	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturall	y problematic? (If needed, explain any answ	vers in Remarks.)

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

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

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

Sampling Point: Upland WP-06

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				Tatal Number of Dominant
3				Species Across All Strata: 2 (B)
4	<u> </u>			
5				That Are OBL, FACW, or FAC:0% (A/B)
6				Prevalence Index worksheet:
7			<u> </u>	Total % Cover of: Multiply by:
		= Total Cove	er	$\frac{1}{\text{OBL species}} \qquad 0 \qquad \text{x 1} = 0.0$
50% of total cover:	20% of	total cover:		EACW species $0 \times 2 = 0.0$
Sapling/Shrub Stratum (Plot size: 19				EAC species $0$ x 3 = $0.0$
1				$\frac{1}{20} \times 4 = \frac{80.0}{100}$
2		. <u> </u>	·	$\frac{1}{1}$
3				$\begin{array}{c} \text{OPL species} \\ \text{OPL species} \\$
4				Column Lotals: $20$ (A) $00.0$ (B)
5				Prevalence Index $= B/A = 4.00$
6				Hydrophytic Vegetation Indicators:
7				No. 4. Denid Test for Undrenk tic Verstation
8.				No. 0. Denie Terkin 5000
9				$\frac{NO}{N}$ 2 - Dominance Test is >50%
···		- Total Cove		$\frac{100}{2}$ 3 - Prevalence Index is $\leq 3.0^{\circ}$
50% of total cover:	20% of	total cover:	, i	$\underline{No}$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
Andropogon virginicus	10	No	FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Anthoxanthum odoratum	50	Yes	FACU	
2. Rosa multiflora	20	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Achilles millefolium	5	No	FACU	be present, unless disturbed or problematic.
4. <u>Actimical minicipitan</u>		No	FACU	Definitions of Four Vegetation Strata:
	5	No	EACU	<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6. Housionia caerulea		110	FACU	more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Woody vine All woody vines greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3.				
4.				
5.				Hydrophytic Vegetation
··		- Total Cove	r	Present? Yes No X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet )			
	011000.)			

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the in	dicator of	or confirm	the absence of indicators.)	
Depth	Matrix		Redo	x Features	1			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc	Texture Remarks	
0 - 18	10YR 3/4	100					Silty clay loam	
-								
		·						
-		·						
-								
-								
							·	
-								
-								
-								
1			De de se d'Alexandre		0			
	ncentration, D=Depi	etion, Rivi=i	Reduced Matrix, Ma	S=IVIasked	Sand Gra	uns.	Location: PL=Pore Lining, M=Matrix.	3
listood	(14)		Dorle Curfood	(07)			2 om Muck (A10) (MLDA 117)	• -
Histosol	(AT)		Dark Surface	e (37) Now Surface	o (S8) /M		149) Coast Brairia Bodoy (A16)	
Flistic Ep	stic (A3)		Folyvalue Be	rface (SQ)	(30) (IV (MI PA 1	AT 147,	(MI PA 147 148)	
Black The	n Sulfide ( $\Delta A$ )			ad Matrix (F	(INIEINA I 2)	47, 140)	Piedmont Floodplain Soils (F19)	
Stratified	Lavers (A5)		Depleted Ma	trix (F3)	2)		(MI RA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F6	5)		Very Shallow Dark Surface (TE12)	
Depleted	Below Dark Surface	e (A11)	Depleted Da	rk Surface (	(F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)	· · ·	Redox Depre	essions (F8)	)			
Sandy M	lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	, s (F12) <b>(I</b>	_RR N,		
MLRA	147, 148)		MLRA 13	6)				
Sandy G	leyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(N</b>	ILRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation an	d
Sandy R	edox (S5)		Piedmont Flo	odplain So	ils (F19)	(MLRA 14	8) wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	Material (F2	21) <b>(MLR</b>	A 127, 147	<ol> <li>unless disturbed or problematic.</li> </ol>	
Restrictive L	ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil Present? Yes No	<
Remarks:							1	
l								

Upland WP-06



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 04/30/24
Applicant/Owner: FirstEnergy	State: C	DH Sampling Point: Wetland WP-07
Investigator(s):	Section, Township, Range: S22 T14N R5	5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): <u>Conca</u>	ave Slope (%):
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.605	57 Long: -81.04331	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI d	classification:
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes X No (If no, expl	ain in Remarks.)
Are Vegetation, Soil, or Hydrology signi	ficantly disturbed? Are "Normal Circumsta	ances" present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally 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? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:			

wetland Hydrology Indicators: <u>Secondary Indicators</u> (minimum of two require	ed)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)	
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8	3)
X High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)	
X Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)	
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)	
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)	
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)	
Iron Deposits (B5) Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)	
Water-Stained Leaves (B9) Microtopographic Relief (D4)	
Aquatic Fauna (B13) FAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes X No Depth (inches): 8	
Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Sampling Point: Wetland WP-07

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL FACW or FAC: $3$ (A)
2		·		Total Number of Dominant
3				Species Across All Strata:3 (B)
4	_			
5				Percent of Dominant Species
<u> </u>		·		That Are OBL, FACW, or FAC:(A/B)
6. <u> </u>		·		Prevalence Index worksheet:
7		·		
		= Total Cove	ər	I otal % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species 0 x 1 = 0.0
Sanling/Shrub Stratum (Plot size: 15		-		FACW species $85 \times 2 = 170.0$
				$EAC$ species $20$ $x_3 = 60.0$
1				$10 \times 10^{-10}$
2				FACU species $10 \times 4 = 40.0$
3.				UPL species 0 x 5 = 0.0
4				Column Totals: 115 (A) 270.0 (B)
4		·		(-)
5				Prevalence index = $B/A = 2.30$
6				
7				nyurophytic vegetation indicators:
				No 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				$\frac{1}{Yes}$ 3 - Prevalence Index is <3 0 <sup>1</sup>
		= Total Cove	er	
50% of total cover	20% of	total cover		4 - Morphological Adaptations' (Provide supporting
	2070 01	10101 00101.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>~</u> )	50	N/s s		No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1	50	res	FACW	
<sub>2.</sub> Barbarea vulgaris	10	No	FACU	
3 Onoclea sensibilis	10	No	FACW	Indicators of hydric soil and wetland hydrology must
Impatiens capensis	5	No	FACW	be present, unless disturbed or problematic.
4. Disherthelium elendestinum				Definitions of Four Vegetation Strata:
5. Dichanthelium clandestinum	20	res	FAC	
6. Phalaris arundinacea	20	Yes	FACW	Iree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				height
·· <u></u>		·		noight.
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10	_			m) tall.
11				
	115	Tatal Original		Herb – All herbaceous (non-woody) plants, regardless
500/ // / 50			er 22	or size, and woody plants less than 5.20 it tail.
50% of total cover: <u>50</u>	20% of	total cover:	23	<b>Woody vine</b> – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1.				
2				
2				
3		·		
4		·		Hydronbytic
5.				Vegetation
		- Total Cove	or.	Present? Yes X No
E00/ of total approx			51	
	20% 0	total cover.		
Remarks: (Include photo numbers here or on a separate	sheet.)			

Links)       20       Color (Indist)       20       Type       Loc       Texture       Refinitive         -	$\sim$	Matrix	0/	Color (moint)	x Features	<u>S</u> Turo <sup>1</sup>	L co <sup>2</sup>	Toyturo	Pomorko
-	<u>s) (</u> 16	10YR 4/2	85	7.5YR 4/6	15	Concen	 M	Clay loam	Remains
-									
-       -								·	
-								<u> </u>	
-       -         -									
-								<u> </u>	
-       -									
-       -									
-									
-       -       -       2Location:       PL=Pore Lining, M=Matrix.         dric Soil Indicators:       Indicators for Problematic Hy         Histosol (A1)									
pe:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         dric Soil Indicators:       Indicators for Problematic Hy         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 1         Histo (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N, <sup>3</sup> Indicators of hydrophytic veg         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148) <sup>3</sup> Indicators of hydrophytic veg								·	
be:       C=CONCENTRATION, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       Location:       PL=Pore Lining, M=Matrix.         dric Soil Indicators:       Indicators:       Indicators for Problematic Hy         Histosol (A1)			ation DM [			Cand Cro		<sup>2</sup> Legation: DL D	ara Lipipa M. Matrix
Histosol (A1)Dark Surface (S7)2 cm Muck (A10) (MLRA 1Histic Epipedon (A2)Polyvalue Below Surface (S8) (MLRA 147, 148)Coast Prairie Redox (A16)Black Histic (A3)Thin Dark Surface (S9) (MLRA 147, 148)Coast Prairie Redox (A16)Hydrogen Sulfide (A4)Loamy Gleyed Matrix (F2)Piedmont Floodplain SoilsStratified Layers (A5)Depleted Matrix (F3)(MLRA 136, 147)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) (LRR N, MLRA 147, 148)Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)3 <sup>1</sup> Indicators of hydrophytic veg wetland hydrology must be preserved for the preser	: Soil Indic	ators:	elion, Rivi=r	Reduced Matrix, Ma	S=IVIASKed	Sand Gra	ins.	Indicator:	s for Problematic Hvdric So
Histic Epipedon (A2)Polyvalue Below Surface (S8) (MLRA 147, 148)Coast Prairie Redox (A16)Black Histic (A3)Thin Dark Surface (S9) (MLRA 147, 148)(MLRA 147, 148)Hydrogen Sulfide (A4)Loamy Gleyed Matrix (F2)Piedmont Floodplain SoilsStratified Layers (A5)Depleted Matrix (F3)(MLRA 136, 147)2 cm Muck (A10) (LRR N)Redox Dark Surface (F6)Very Shallow Dark SurfaceDepleted Below Dark Surface (A11)Depleted Dark Surface (F7)Other (Explain in Remarks)Thick Dark Surface (A12)Redox Depressions (F8)Other (Explain in Remarks)Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic veg wetland hydrology must be present for the presen	stosol (A1)			Dark Surface	e (S7)			2 cm	Muck (A10) (MLRA 147)
Black Histic (A3)	stic Epiped	on (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	LRA 147	, <b>148)</b> Coas	t Prairie Redox (A16)
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         MLRA 147, 148)       MLRA 136)       3Indicators of hydrophytic veg         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be p	ack Histic (	A3)		Thin Dark Su	irface (S9)	(MLRA 1	47, 148)	(M	LRA 147, 148)
Stratified Layers (A5)        Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)        Redox Dark Surface (F6)        Very Shallow Dark Surface         Depleted Below Dark Surface (A11)        Depleted Dark Surface (F7)        Other (Explain in Remarks)         Thick Dark Surface (A12)        Redox Depressions (F8)        Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,        Iron-Manganese Masses (F12) (LRR N,          MLRA 147, 148)        MLRA 136,          Sandy Gleyed Matrix (S4)	/drogen Su	lfide (A4)		Loamy Gleye	ed Matrix (	F2)		Piedr	nont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N)	ratified Lay	ers (A5)		Depleted Ma	trix (F3)			(M	LRA 136, 147)
Depleted Below Dark Surface (A11)	cm Muck (A	(10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		Very	Shallow Dark Surface (TF12)
Thick Dark Surface (A12)	epleted Bel	ow Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)		Other	· (Explain in Remarks)
Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         MLRA 147, 148)	nick Dark Sr	urface (A12)		Redox Depre	essions (F8	3)			
MLRA 147, 148)MLRA 136)Sandy Gleyed Matrix (S4)Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegSandy Redox (S5)Piedmont Floodplain Soils (F19) (MLRA 148)wetland hydrology must be p	andy Mucky	/ Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(L</b>	.RR N,		
Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic veg         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be p	<b>MLRA 147</b>	', 148)		MLRA 13	6)				
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be p	andy Gleye	d Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b>	<b>MLRA 136</b>	6, 122)	<sup>3</sup> Indicate	ors of hydrophytic vegetation
	andy Redox	(S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	(MLRA 14	48) wetlan	d hydrology must be present,
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problem	ripped Mati	rix (S6)		Red Parent M	Material (F	21) <b>(MLR</b>	A 127, 14	7) unless	disturbed or problematic.
strictive Layer (if observed):	ctive Laye	r (if observed):							
Type: Clay	e: Clay								
Depth (inches): 16.0 Hydric Soil Present? Yes X		. 16.0						Hydric Soil Pre	sent? Yes X No
	oth (inches)							-	

Wetland WP-07





Wetland WP-07



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 04/30/24
Applicant/Owner: FirstEnergy	State: <u>OH</u>	Sampling Point: Upland WP-07
Investigator(s): JFW	Section, Township, Range: S22 T14N R5W	
Landform (hillslope, terrace, etc.): Hillside	_ Local relief (concave, convex, none): <u></u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.60563	Long: -81.04330	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI class	ification:
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrology signification	antly disturbed? Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturall	ly problematic? (If needed, explain any ans	wers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Roots (C3)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>bils (C6)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9) Aquatic Fauna (B13)	<ul> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No <sup>X</sup> Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Ves       No       X       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes NoX tions), if available:

Sampling Point: Upland WP-07

00	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	<u>% Cover Species? Status</u>	Number of Dominant Species
1		That Are OBL, FACW, or FAC: 0 (A)
2.		
3		Total Number of Dominant
		Species Across All Strata: (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 0% (A/B)
6		
7.		Prevalence Index worksheet:
	– Total Cover	Total % Cover of: Multiply by:
50% of total cov		OBL species $0   x   1 = 0.0$
		FACW species 0 x 2 = 0.0
Sapling/Shrub Stratum (Plot size: 19	)	
1		FAC species $100$ $x_3 = 400.0$
2		FACU species $100   x 4 = 400.0$
3.		UPL species x 5 =0.0
1		Column Totals: 100 (A) 400.0 (B)
5		Prevalence Index = $B/A = 4.00$
6		Hydrophytic Vegetation Indicators
7		No. 1 Papid Test for Hydrophytic Vegetation
8.		
0		No 2 - Dominance Test is >50%
9		<u>No</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	= I otal Cover	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cov	er: 20% of total cover:	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )		No. Decklemetic Underschutic Verstetics <sup>1</sup> (Europein)
1. Andropogon virginicus	40 Yes FACU	Problematic Hydrophytic Vegetation (Explain)
2 Anthoxanthum odoratum	50 Yes FACU	
<ul> <li>Houstonia caerulea</li> </ul>	10 No FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		
6.		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7		more in diameter at breast height (DBH), regardless of
·· <u> </u>		noight.
ð		Sapling/Shrub – Woody plants, excluding vines, less
9		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		m) tall.
11		Herb – All berbaceous (non-woody) plants, regardless
	100 = Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cov	er: 50 20% of total cover: 20	
Woody Vine Stratum (Plat aize: 30		Woody vine – All woody vines greater than 3.28 ft in
	)	height.
1		
2		
3		
4.		
		Hydrophytic
5		Present? Yes No X
	= Iotal Cover	
50% of total cov	er: 20% of total cover:	
Remarks: (Include photo numbers here or on a s	separate sheet.)	

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the i	ndicator o	or confirn	n the absence of indicators.)	
Depth	Matrix		Redox Features					
(inches)	Color (moist)		Color (moist)		Type'		Texture Remarks	
0 - 18	2.5Y 5/3	60	7.5YR 4/6	40	Concen	M	Silty clay loam	
-								
-								
-								
-								
							·	
-								
-								
-								
		lation BM_E	Poducod Motrix, MS	-Maakad			<sup>2</sup> Lagation: BL-Bara Lining M-Matrix	
Hydric Soil I	ndicators:		Reduced Matrix, Mc	S=IVIASKEU	I Sanu Gra		Indicators for Problematic Hydric So	oils <sup>3</sup> .
Histosol	(A1)		Dark Surface	(97)			2 cm Muck (A10) (MI BA 147)	
Histic Er	(A1) binedon (A2)		Polyvalue Bel	(Sr) low Surfa	ce (S8) <b>(M</b>	I R  147	148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	) (MLRA 1	47. 148)	(MLRA 147, 148)	
Hvdroge	n Sulfide (A4)		Loamv Gleve	d Matrix (	F2)	,,	Piedmont Floodplain Soils (F19)	
Stratified	Lavers (A5)		Depleted Mat	rix (F3)	/		(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (Fa	8)			
Sandy M	lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangane	ese Masse	es (F12) <b>(L</b>	.RR N,		
MLRA	<b>147, 148)</b>		MLRA 136	6)				
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	(MLRA 136	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation	and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) (	(MLRA 14	<ol> <li>wetland hydrology must be present,</li> </ol>	
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	A 127, 14	7) unless disturbed or problematic.	
Restrictive L	.ayer (if observed):							
Туре:								N/
Depth (inc	ches):						Hydric Soil Present? Yes No	<u> </u>
Remarks:							•	
Upland WP-07





Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County		_ Sampling Date: 05/01/24
Applicant/Owner:		State: OH	Sampling Point: Wetland WP-08
Investigator(s): JFW	Section, Township, Range: S2	1 T14N R5W	
Landform (hillslope, terrace, etc.): Depression	_ Local relief (concave, convex, nor	ne): Concave	Slope (%): <u>3</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.5983	5 Long: <u>-81.0</u>	04363	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)		NWI classi	fication:
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology signified	cantly disturbed? Are "Normal	Circumstances'	present? Yes X No
Are Vegetation, Soil, or Hydrology natura	Illy problematic? (If needed, e	explain any answ	vers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:			

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)					
X High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)					
X Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)					
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)					
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	ils (C6) Crayfish Burrows (C8)					
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)					
Iron Deposits (B5)	X Geomorphic Position (D2)					
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)					
Water-Stained Leaves (B9)	Microtopographic Relief (D4)					
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)					
Field Observations:	-					
Surface Water Present? Yes No X Depth (inches):						
Water Table Present? Yes X No Depth (inches): 6						
Saturation Present? Yes X No Depth (inches): 0	Wetland Hydrology Present? Yes X No					
(includes capillary fringe)						
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:					

Sampling Point: Wetland WP-08

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
4 5.				Percent of Dominant Species
6.				
7.				Prevalence Index worksheet:
		= Total Cove	er.	Total % Cover of:Multiply by:
50% of total cover:	20% of	total cover:		OBL species20 x 1 =20.0
Sapling/Shrub Stratum (Plot size: 15		-		FACW species X 2 = 150.0
1.				FAC species x 3 =0.0
2			·······	FACU species 30 x 4 = 120.0
2				UPL species $0 \times 5 = 0.0$
4.			·	Column Totals: 125 (A) 290.0 (B)
5				Prevalence Index = $B/A = \frac{2.30}{2.30}$
6				Hvdrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No. 2 - Dominance Test is >50%
9				$\frac{1}{2}$ 2 - Dominance results >00%
		= Total Cove	er	$N_{0}$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5)				No Problematic Hydrophytic Magazatics <sup>1</sup> (Evplain)
1. Onoclea sensibilis	40	Yes	FACW	
2. Cardamine bulbosa	20	No	OBL	
<sub>3.</sub> Lysimachia nummularia	10	No	FACW	Indicators of hydric soil and wetland hydrology must
4. Impatiens capensis	20	No	FACW	Definitions of Four Vegetation Strates
5. Juncus effusus	5	No	FACW	Deminitions of Four Vegetation Strata.
6. Poa annua	30	Yes	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				more in diameter at breast height (DBH), regardless of height.
8.				
9.				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10.				m) tall.
11.				
	125	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 63	20% of	total cover:	25	
Woody Vine Stratum (Plot size: 30 )		-		Woody vine – All woody vines greater than 3.28 ft in height.
1				
2			·	
3			<u> </u>	
4				Hydrophytic
5			<u> </u>	Vegetation Present? Yes X No
500/ // /		= Total Cove	er	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

I

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	ndicator o	or confirm	n the absence	of indicators.)
Depth	Matrix		Redox	x Feature	S Turne <sup>1</sup>		Touturo	Domorko
<u>(Incries)</u>	5V 1/1	80	10VR 5/8	20	Concer		Silty clay	Remarks
0 - 18	514/1		101K 5/6		Concer		Silty Clay	
-								
-								
-								
-								
-								
		·						
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=l	Reduced Matrix, MS	S=Masked	I Sand Gra	ins.	<sup>2</sup> Location: PL	_=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indica	tors for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) <b>(MLRA 147)</b>
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	LRA 147,	148) Co	oast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark Su	rface (S9)	) <b>(MLRA 1</b> 4	47, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Pi	edmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	·6)		Ve	ery Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dar	K Surrace	(F7)		0	ther (Explain in Remarks)
Thick Da	lik Sullace (ATZ)			SSIONS (F	0) 00 (E12) <b>(I</b>			
	147 148)	<b>ΓΓ Ν</b> ,		550 IVIASS	es (F12) <b>(</b> E			
Sandy G	leved Matrix (S4)		Umbric Surfa	ce (F13) (	MLRA 136	5, 122)	<sup>3</sup> Indi	cators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) (	MLRA 14	18) wet	tland hydrology must be present.
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 147	7) unl	ess disturbed or problematic.
Restrictive L	ayer (if observed):			、 、	, (	,	,	
Type:								
Depth (inc	thes):						Hydric Soil	Present? Yes X No
Romarke:							,	
Normarko.								
l								





W

Wetland WP-08



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-08
Investigator(s):	Section, Township, Range: S21 T14N R5W	
Landform (hillslope, terrace, etc.): Undulating	_ Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.59241	Long: -81.09256	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI class	ification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain in	n Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	wers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							

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

Sampling Point: Upland WP-08

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Deminent
3.				Species Across All Strata: 2 (B)
4				
	·			Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet
7				
		= Total Cov	er	
50% of total cover:	20% of	total cover:		OBL species $0 x 1 = 0.0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species5 x 2 =10.0
1.				FAC species25 x 3 =75.0
2				FACU species X 4 = 280.0
2				UPL species $0 \times 5 = 0.0$
				Column Totals: 100 (A) 365.0 (B)
4	·			
5	·			Prevalence Index = $B/A = 3.70$
6	·			Hydrophytic Vegetation Indicators:
7				No. 1. Denid Test for Lludrenby tie Vegetation
8.				1 - Rapid Test for Hydrophytic Vegetation
9				$\frac{NO}{2}$ 2 - Dominance Test is >50%
		Tatal Cau		<u>No</u> 3 - Prevalence Index is $\leq 3.0^1$
	000/ -4	= I otal Cov	er	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% 01	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>5</u> )	4.0		FAOL	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Verbascum thapsus	10	No	FACU	
2. Podophyllum peltatum	5	No	FACU	1
<sub>3.</sub> Solidago rugosa	25	Yes	FAC	Indicators of hydric soil and wetland hydrology must
⊿ Galium aparine	5	No	FACU	be present, unless disturbed of problematic.
- Alliaria petiolata	5	No	FACU	Definitions of Four Vegetation Strata:
- Rosa multiflora	5	No	FACU	<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6. Rosa malanora	·			more in diameter at breast height (DBH), regardless of
7. Phalaris arundinacea	5	NO	FACW	height.
8. Poa annua	40	Yes	FACU	Sanling/Shrub Woody plants, excluding vines, loss
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
	100	Tatal Cau		Herb – All herbaceous (non-woody) plants, regardless
E0% of total acutor: 50	20% of		er 20	or size, and woody plants less than 3.26 it tall.
	20 % 01			Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4.				
5				Hydrophytic Vegetation
		Tatal O		Present? Yes No X
E0% of total acutors			er	
50% of total cover.	20% 0	total cover.		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Depth	Matrix		Redo	ox Features					
(inches) Co	olor (moist)	%	Color (moist)	% Type	<sup>1</sup> Loc <sup>2</sup>	Texture		Remarks	
0 - 4	10YR 4/3	100				Loam			
4 - 16	2.5Y 5/4	100				Clay loam			
-									
-									
-									
-									
-									
-									
-									
Type: C=Concent	ration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked Sand	Grains.	<sup>2</sup> Location: I	PL=Pore Lini	ng, M=Matrix.	
ydric Soil Indica	ors:					Indie	cators for Pr	oblematic Hy	dric Soils <sup>3</sup> :
Histosol (A1)			Dark Surface	e (S7)			2 cm Muck (A	A10) <b>(MLRA 1</b>	47)
Histic Epipedor	ו (A2)		Polyvalue Be	elow Surface (S8)	(MLRA 147	, 148)	Coast Prairie	Redox (A16)	
Black Histic (A	3)		Thin Dark Sι	urface (S9) (MLR)	A 147, 148)		(MLRA 14	7, 148)	
_ Hydrogen Sulfi	de (A4)		Loamy Gleye	ed Matrix (F2)			Piedmont Flo	odplain Soils	(F19)
Stratified Layer	s (A5)		Depleted Ma	atrix (F3)			(MLRA 13	6, 147)	
2 cm Muck (A1	0) (LRR N)		Redox Dark	Surface (F6)			Very Shallow	Dark Surface	(TF12)
Depleted Belov	v Dark Surface	e (A11)	Depleted Da	rk Surface (F7)			Other (Explai	n in Remarks	) Ý
Thick Dark Sur	face (A12)		Redox Depre	essions (F8)				,	,
Sandy Mucky I	/lineral (S1) (I	RRN	Iron-Mangan	ese Masses (F12					
	1/18)	,	MI PA 13	(1 12	) (LINI IN,				
Sandy Glaved	Matrix (S4)		Limbric Surfs	-0) 200 (E13) (MI PA	136 122)	<sup>3</sup> In	dicators of by	drophytic yea	latation and
_ Sandy Deday (	Nati (34)		Onblic Suite		(MI DA 4	4 <b>0)</b>	ulcalors of hy		
	30)				9) (IVILKA 1	40) W		iogy must be p	stis
_ Stripped Matrix	(56)		Red Parent i	viateriai (F21) (IVI	_RA 127, 14	/) u	niess disturb	ed or problem	atic.
estrictive Layer (	if observed):								
Type: Clay									
Depth (inches):	16.0					Hydric So	il Present?	Yes	No <u>X</u>

Upland WP-08



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:
Applicant/Owner: FirstEnergy	State:	OH Sampling Point: Wetland WP-09
Investigator(s): JFW	Section, Township, Range: S20 T14N R	5W
Landform (hillslope, terrace, etc.): Footslope	_ Local relief (concave, convex, none): <u>Conc</u>	cave Slope (%): <u>10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.58043	Long: -81.04477	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6099)	NWI	classification:
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, exp	lain in Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal Circumst	ances" present? Yes X No
Are Vegetation, Soil, or Hydrology natural	lly problematic? (If needed, explain an	y answers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland? Ye	es X No
Remarks:			

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
X High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
X Saturation (A3) Oxidized Rhizospheres on Living I	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes X No Depth (inches): 5	
Water Table Present?       Yes X       No Depth (inches): 5         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)       Yes X       No Depth (inches): 0	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes       X       No       Depth (inches):       5         Saturation Present?       Yes       X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes       X       No       Depth (inches):       5         Saturation Present?       Yes       X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes       X       No       Depth (inches):       5         Saturation Present?       Yes       X       No       Depth (inches):       0         (includes capillary fringe)       Image: Constraint of the second dependence of the second de	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes       X       No       Depth (inches):       5         Saturation Present?       Yes       X       No       Depth (inches):       0         (includes capillary fringe)       Image: Comparison of the second depth of the second depth (inches)       0       Image: Comparison of the second depth of	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 5         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       5         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No       Depth (inches):       5         Saturation Present?       Yes X       No       Depth (inches):       0         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 5         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 5         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 5         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Water Table Present?       Yes X       No Depth (inches): 5         Saturation Present?       Yes X       No Depth (inches): 0         (includes capillary fringe)	Wetland Hydrology Present? Yes X No

Sampling Point: Wetland WP-09

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Deminant
3.				Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species
<u> </u>				That Are OBL, FACW, or FAC:(A/B)
b				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	er	$\frac{1}{1} \frac{1}{1} \frac{1}$
50% of total cover:	20% of	total cover:		$\frac{105}{105} = \frac{100}{2100}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $103$ $x 2 = 210.0$
1				FAC species $0 \times 3 = 0.0$
2.				FACU species x 4 =0.0
3.				UPL species x 5 =0.0
1				Column Totals: 110 (A) 215.0 (B)
F.				
0				Prevalence Index = $B/A = 2.00$
б	·			Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				$\frac{1}{2}$ 2 Dominance reaction 2007
		= Total Cove	er	$\frac{1}{1}$ 5 - Flevalence index is $\leq 5.0$
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )		-		data in Remarks or on a separate sheet)
1 Carex bromoides	40	Yes	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Phalaris arundinacea	40	Yes	FACW	
2. Agrimonia panyiflora	- <del></del> 5	No		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	<u> </u>			be present, unless disturbed or problematic.
4. Juncus eπusus	10	<u>N0</u>	FACW	Definitions of Four Vegetation Strata:
5. Scirpus atrovirens	5	No	OBL	
6. Eupatorium perfoliatum	10	No	FACW	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				height.
8				
Q				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
3				man 3 In. DBH and greater than or equal to 3.28 ft (1
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	110	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of	total cover:	22	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4.				
5				Hydrophytic Vegetation
		Tatal Cau		Present? Yes X No
E0% of total acutor:	20% of	total cover	÷1	
	20% 01	iolal cover.		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator o	or confirm	n the absence	of indicators.)
Depth	Matrix		Redo	x Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 18	10YR 4/1	90	10YR 4/4	10	Concen	М	Silty clay loam	
-								
		·						
-								
-								
-								
		<u> </u>			<u> </u>		<u> </u>	
-								
_								
1 <b>T</b>			Deduced Metric M				<sup>2</sup> l a satisma DI	Dava Lining M. Matrix
Hydric Soil	Indicators:	etion, RIVI=I	Reduced Matrix, Ma	S=IVIasked	Sand Gra	ins.	Location: PL	_=Pore Lining, M=Matrix.
Histosol	(A1)		Dark Surface	(97)			2	cm Muck (A10) (MI BA 147)
Histic F	(A1)		Polyvalue Be	low Surfa	(S8) (M	I RA 147	148) 2	oast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	Inface (S9)		47 148)	, 140) 0	(MI RA 147 148)
Hydroge	en Sulfide (A4)		Loamy Gleve	ed Matrix (I	F2)	1, 140)	Pi	iedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	)			(MLRA 136, 147)
2 cm Mi	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		Ve	erv Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	(F7)		0	ther (Explain in Remarks)
Thick Da	ark Surface (A12)	· · ·	Redox Depre	essions (F8	3)			
Sandy M	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(L</b>	.RR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b>	MLRA 136	6, <b>122)</b>	<sup>3</sup> Indi	cators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Se	oils (F19) <b>(</b>	MLRA 14	<b>48)</b> we	tland hydrology must be present,
Stripped	I Matrix (S6)		Red Parent M	Material (F	21) <b>(MLR</b> A	A 127, 14	<b>7)</b> unl	ess disturbed or problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes X No
Remarks:							1	

Wetland WP-09



Soil











Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/02/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-09
Investigator(s): JFW	Section, Township, Range: S20 T14N R5W	
Landform (hillslope, terrace, etc.): Toeslope	Local relief (concave, convex, none): Concave	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.58049	Long: -81.04481	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6099)	NWI class	sification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturall	y problematic? (If needed, explain any ans	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							

Sampling Point: Upland WP-09

22	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Tatal March and Characteria
3				I otal Number of Dominant Species Across All Strata: 1 (B)
۵				
4				Percent of Dominant Species
5		<u> </u>		That Are OBL, FACW, or FAC:(A/B)
6				Dravalance in dev wantebeet.
7				Prevalence index worksneet:
	:	= Total Cove	er	Total % Cover of:Multiply by:
50% of total cover:	20% of	total cover:		OBL species 0 x 1 = 0.0
Sapling/Shrub Stratum (Plot size: 15				FACW species 15 $x 2 = 30.0$
				FAC species $0 \times 3 = 0.0$
1				$\frac{1}{1000} \frac{1}{10000000000000000000000000000000000$
2				FACU species $x_4 = 0.0$
3				UPL species $0 x 5 = 0.0$
4.				Column Totals: <u>110</u> (A) <u>410.0</u> (B)
5				0.70
3				Prevalence Index = $B/A = \frac{3.70}{2}$
0				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No. 2. Dominanco Tast is >50%
9.				
		- Total Cove		$100 3$ - Prevalence Index is $\leq 3.0^{\circ}$
50% of total cover		total cover:	71	<u>No</u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover.	20% 01	lotal cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>9</u> )	4.0		<b>FA 014</b>	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Phalaris arundinacea	10	NO	FACW	
2. Solidago canadensis	20	No	FACU	1
3. Anthoxanthum odoratum	60	Yes	FACU	Indicators of hydric soil and wetland hydrology must
A Apocynum cannabinum	5	No	FACU	be present, unless disturbed of problematic.
- Taraxacum officinale	10	No	FACU	Definitions of Four Vegetation Strata:
				<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6. Agrimonia parvinora	<del></del>	INO	FACW	more in diameter at breast height (DBH), regardless of
7				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10				m) tall
10				
11		·		Herb – All herbaceous (non-woody) plants, regardless
	<u> </u>	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of	total cover:	22	Weedy vine All weedy vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30 )				height
1.				linght
3				
2				
3				
4				Hydrophytic
5				Vegetation
	:	= Total Cove	er	Present? Yes No X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	shoot )			
	sneet.)			

l

Depth	Matrix	o the depti	Redo	v Features	idicator o	or contin	in the absence of indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0 - 18	10YR 4/2	90	10YR 4/4	10	Concen	М	Clay loam
							· · · · · · · · · · _
					<u> </u>		
-							
-							
							· ·
							· ·
-							· ·
-							
-							
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion. RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix
Hydric Soil	Indicators:		·····,				Indicators for Problematic Hydric Soil
Histosol	(A1)		Dark Surface	e (S7)			2 cm Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(M</b>	LRA 147	7, 148) Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 14	47, 148)	(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (F	-2)		Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136, 147)
2 cm Mu	ick (A10) <b>(LRR N)</b>	( )	Redox Dark	Surface (F	6) (F7)		Very Shallow Dark Surface (TF12)
Depleted	Delow Dark Surface	(ATT)	Depleted Dal	rk Surrace	(F7)		Other (Explain in Remarks)
Sandy M	Ark Sunace (A12) Aucky Mineral (S1) (I	RRN	Redux Depre	ese Masse	9) 0s (F12) <b>(I</b>	RRN	
	147. 148)	,	MLRA 13	6)	,3 (1 12) <b>(E</b>		
Sandy G	eleved Matrix (S4)		Umbric Surfa	-, ice (F13) <b>(I</b>	MLRA 136	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation ar
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19) <b>(</b>	MLRA 14	<b>48)</b> wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	21) (MLRA	A 127, 14	7) unless disturbed or problematic.
Restrictive I	_ayer (if observed):						
Type:							
							Hvdric Soil Present? Yes No
Depth (ind	ches):						
Depth (ind Remarks:	ches):						

Upland WP-09







Project/Site: Washington-Polo Road - Phase 2	City/County	/: Carroll County	Sampling Date: 05/01/24		
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland WP-10		
Investigator(s): JFW	Section, To	ownship, Range: S19 T14N R5W			
Landform (hillslope, terrace, etc.): Lowland	Local relief (co	oncave, convex, none): Concave	Slope (%): <u>2</u>		
Subregion (LRR or MLRA): LRR N MLRA 124 Lat:	40.59242	Long: -81.09258	Datum: NAD 83		
Soil Map Unit Name: Westmoreland-Coshocton-Berks	(s6121)	NWI classifi	cation: R5UBH		
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes X	No (If no, explain in F	Remarks.)		
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No		
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         X         No           Yes         X         No           Yes         X         No	- Is the Sampled Area - within a Wetland?	Yes X No
Remarks:			

	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	
Saturation Present? Yes X No Depth (inches): 6	Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
(Includes capillary tringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	tions), if available:
(Includes capillary tringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	tions), if available:

Sampling Point: Wetland WP-10

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2		. <u> </u>		Total Number of Deminent
3.				Species Across All Strata: 1 (B)
4	_			(-,
5	_	·		Percent of Dominant Species
		·		That Are OBL, FACW, or FAC: (A/B)
6		·		Prevalence Index worksheet:
7		·		Total % Cover of: Multiply by:
		= Total Cove	er	
50% of total cover:	20% of	total cover:		$\begin{array}{c} OBL \text{ species} \\ \hline \end{array} \\ \hline x \\ 1 = \\ \hline \end{array} \\ \hline \\ \hline$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $33$ x 2 = $130.0$
1				FAC species $0   x 3 = 0.0$
2.				FACU species <u>5</u> x 4 = <u>20.0</u>
3	_			UPL species x 5 =0.0
0		·		Column Totals: 100 (A) 210.0 (B)
4		·		
5		<u> </u>		Prevalence Index = $B/A = 2.10$
6		·		Hydrophytic Vegetation Indicators:
7		·		Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				$\underline{Y}_{\text{res}} = 2$ - Dominance results 20070
		= Total Cove	er	$\frac{100}{100}$ 3 - Prevalence index is $\leq 3.0$
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
Phalaris arundinacea	90	Yes	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	5	No	EACU	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Impatiens capensis	5	NO	FACW	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5		<u></u>		
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7	_	·		more in diameter at breast height (DBH), regardless of
0	_	·		noight.
0		·		Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		·		m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Weedwide Allowedwide engates then 2.20 ft is
Woody Vine Stratum (Plot size: 30 )				beight
1.				- Holgin.
2	_			
2		·		
3		·		
4		·		Hydrophytic
5		·		Vegetation
		= Total Cove	er	Present? Yes <u>^</u> No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			
	,			

Profile Desci	ription: (Describe t	o the dept	in needed to docul	v Feature	Indicator o	or contirn	n the absence	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%		Loc <sup>2</sup>	Texture	Remarks	
0 - 18	10YR 4/2	90	5YR 3/4	10	Concen	M,PL	Clay loam		
-									
-									
-									
-									
- <sup>1</sup> Type: C=Cc	oncentration. D=Depl	etion. RM=	Reduced Matrix. M	S=Masked	d Sand Gra	ins.	<sup>2</sup> Location: Pl		
Hydric Soil I	ndicators:		, , ,				Indica	tors for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1) ipedon (A2)		Dark Surface	e (S7) elow Surfa	ice (S8) <b>(M</b>	LRA 147.	2	cm Muck (A10) <b>(MLRA 147)</b> oast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	urface (S9	) (MLRA 14	47. 148)		(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleve	ed Matrix (	(F2)	,,	Pi	iedmont Floodplain Soils (F19)	
Stratified	Lavers (A5)		Depleted Ma	trix (F3)	(/			(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F	-6)		V	erv Shallow Dark Surface (TE12)	
Depleted	Below Dark Surface	(A11)	Depleted Da	rk Surface	e (F7)		Other (Explain in Remarks)		
Thick Da	rk Surface (A12)	(,)	Redox Depre	essions (F	8)				
Sandy M	lucky Mineral (S1) (	RRN	Iron-Mangar	ese Mass	es (F12) <b>(I</b>	RR N			
	147 148)	,	MIRA 13	6)	(1 12) <b>(</b> E				
Sandy G	leved Matrix (S4)		Umbric Surf	ore (F13)	(MI RA 136	\$ 122)	<sup>3</sup> Indi	cators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odolain S	oils (F19) (	MIRA 14	18) we	tland hydrology must be present	
Stripped	Matrix (S6)		Red Parent I	Material (F	21) (MLRA	127. 14 <sup>-</sup>	7) uni	ess disturbed or problematic.	
Restrictive L	aver (if observed):			natoriai (i		,	-,		
Depth (inc	ches):						Hydric Soil	Present? Yes X No	
Remarks:									

Wetland WP-10



S



Wetland WP-10



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/01/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-10
Investigator(s):	Section, Township, Range: S19 T14N R5W	
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.59241	Long: -81.09249	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI classi	fication:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	vers in Remarks.)

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

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

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

# Sampling Point: Upland WP-10

22	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1		<u> </u>		That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3.				Species Across All Strata: 2 (B)
4.				
5				Percent of Dominant Species
3. <u> </u>			<u> </u>	That Are OBL, FACW, or FAC: (A/B)
o		<u> </u>		Prevalence Index worksheet:
7	·			Total % Cover of: Multiply by:
		= Total Cove	er	$\frac{1}{1} \frac{1}{1} \frac{1}$
50% of total cover:	20% of	total cover:		$\frac{1}{2} = \frac{1}{2} = \frac{1}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $20$ $x 2 = 40.0$
1				FAC species $5 \times 3 = 15.0$
2.				FACU species115 x 4 =460.0
3				UPL species x 5 =0.0
а Л				Column Totals: 140 (A) 515.0 (B)
۲ ۶	·			
5				Prevalence Index = $B/A = \frac{3.70}{100000000000000000000000000000000000$
0				Hydrophytic Vegetation Indicators:
<i>I</i>				No 1 - Rapid Test for Hydrophytic Vegetation
8			<u> </u>	No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is $\leq 3.0^{1}$
	:	= Total Cove	er	$N_{\rm e}$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of	total cover:		dete in Demorte en en e concerte cheet)
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sneet)
1. Trifolium repens	60	Yes	FACU	Problematic Hydrophytic Vegetation' (Explain)
2 Phalaris arundinacea	20	No	FACW	
2. Poa annua	50	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
A Ranunculus renens	5	No	FAC	be present, unless disturbed or problematic.
4. Clashama hadaraasa	- <u> </u>	No		Definitions of Four Vegetation Strata:
5. Glechoma nederacea	<u> </u>	INO	FACU	Tree Mandy plants evaluating vince 2 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7				height.
8.				
9.				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10			<u> </u>	
· I	140			Herb – All herbaceous (non-woody) plants, regardless
<b>5</b> 00% of the laborator <b>7</b> 0	000( - (	= Iotal Cove	er 29	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>70</u>	20% of	total cover:	20	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4.				the base had a
5				Hydrophytic
		- Total Cove		Present? Yes No X
50% of total cover:	20% of	total cover:	71	
Pomorko: (Includo photo numboro horo or on o concerto d	2070 01	10101 00 001.		
Remarks: (Include photo numbers here of on a separate	sneet.)			

L

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the in	dicator o	or confirm	n the absence of	of indicato	rs.)	
Depth	Matrix		Redo	x Features	1					
(inches)	Color (moist)		Color (moist)		Type'	Loc	Texture		Remarks	
0 - 18	10YR 4/4	100					Clay loam			
-										
-										
-										
-										
-										
-										
·										
-										
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	S=Masked S	Sand Gra	iins.	<sup>2</sup> Location: PL	=Pore Linir	g, M=Matrix.	
Hydric Soil I	ndicators:						Indicat	ors for Pr	oblematic H	ydric Soils':
Histosol	(A1)		Dark Surface	(S7)			2 c	m Muck (A	10) <b>(MLRA</b> 1	147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surface	e (S8) <b>(M</b>	LRA 147,	, <b>148)</b> Co	ast Prairie	Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9) (	(MLRA 1	47, 148)		(MLRA 147	7, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		Pie	edmont Flo	odplain Soils	(F19)
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136	5, 147)	
2 cm Mu	ick (A10) <b>(LRR N)</b>	( ) ( )	Redox Dark S	Surface (F6	) )		Ve	ry Shallow	Dark Surface	e(IF12)
Depleted	Below Dark Surface	e (ATT)	Depleted Dar	K Surrace (	F7)		Ot	ner (Explai	1 In Remarks	5)
Thick Da	ucky Minoral (S1)			SSIONS (FO)	) > (E12) <b>(I</b>					
	100Ky Willeral (ST) (L	KK N,			5 (F12) <b>(I</b>	KK N,				
Sandy G	leved Matrix (S4)		Limbric Surfa	ο Γρ. (F13) <b>(N</b>		6 122)	<sup>3</sup> India	ators of hy	dronhytic ve	netation and
Sandy B	edox (S5)		Piedmont Flo	odolain Soi	ils (F19)	(MI RA 14	18) wet	and hydrol	arophytic ve	present
Stripped	Matrix (S6)		Red Parent M	laterial (F2	1) (MLR	A 127. 147	7) unle	ess disturbe	d or problem	atic.
Restrictive L	_aver (if observed):			iatoriai (i <u>-</u>	., (	,				
Type										
Depth (inc	ches):						Hydric Soil F	Present?	Yes	No X
Bomorko:										
Remarks:										

Upland WP-10



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/02/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-1
Investigator(s): JFW	Section, Township, Range: S19 T14N R5W	
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none):	Slope (%):
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.57005	Long:81.04604	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI clas	ssification:
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 signific	cantly disturbed? Are "Normal Circumstance	es" present? Yes X No
Are Vegetation, Soil, or Hydrology natura	Ily problematic? (If needed, explain any an	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:			

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

Sampling Point: Wetland WP-11

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Deminent
3.				Species Across All Strata: 3 (B)
4				
5				Percent of Dominant Species
<u> </u>		·	<u> </u>	That Are OBL, FACW, or FAC: (A/B)
6		·		Prevalence Index worksheet:
7		·	·	Total % Cover of Multiply by
		= Total Cove	er	$\frac{1}{1} \frac{1}{1} \frac{1}$
50% of total cover:	20% of	f total cover:		$\begin{array}{c} \text{OBL species} \\ \hline \\ $
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $43$ x 2 = $90.0$
1				FAC species $0 \times 3 = 0.0$
2.				FACU species40 x 4 =160.0
3				UPL species x 5 =0.0
1		·		Column Totals: 130 (A) 295.0 (B)
T		·		
0		·	·	Prevalence Index = $B/A = 2.30$
0 7		·	<u> </u>	Hydrophytic Vegetation Indicators:
/		·		Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				$\frac{1}{Yes}$ 3 - Prevalence Index is <3 0 <sup>1</sup>
		= Total Cove	er	No. 4. Marphalagiaal Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of	f total cover:		4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )				data in Remarks or on a separate sheet)
	40	Yes	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Scirpus atrovirens	30	Yes	OBL	
2. Cardamine bulbosa	15	No	OBI	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	5	No		be present, unless disturbed or problematic.
4. Onociea sensibilis			FACW	Definitions of Four Vegetation Strata:
5. Poa annua	40	Yes	FACU	Trace Manda de la de la della sectoria de la (7.0 en) en
6				Iree – woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH) regardless of
7				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10				m) tall.
10		·		,
II	120		<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
500 (	130	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 05	20% 01	total cover:	20	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3	_			
4.				
5.				Hydrophytic
		- Total Cove		Present? Yes X No
50% of total cover:	20% of	f total cover:		
Bemerke: (Include photo numbers here or on a congreta	2070 0			
Remarks. (include photo numbers here of on a separate	sneet.)			

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## SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	r confirm	the absence of indi	cators.)	
Depth	Matrix		Redox	Features	S1				
(inches)	Color (moist)	<u>    %                                </u>	Color (moist)	<u>%</u>	Type'		<u>Texture</u>	Remarks	
0 - 6	10YR 4/2		5YR 3/4	20	Concen	PL,M	Clay loam		
6 - 12	10YR 6/2	50	10YR 5/8	50	Concen	М	Clay		
-									
-			<u> </u>						
						<u> </u>			
-									
-									
-									
-									
	·		<u>.</u>						
			<u>_</u>				2		
'Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	=Masked	Sand Gra	ins.	Location: PL=Pore	Lining, M=Matrix.	
			Darls Curfage				indicators to		
HISTOSOI	(A1) bipedon (A2)		Dark Surface	(57) w Surfa	co (S8) (MI	DA 1/7	148) 2 cm ivius	CK (A10) <b>(IVILKA 14</b> Dirie Redox (A16)	/)
Black Hi	stic (A3)		Thin Dark Sur	face (S9)	(MI RA 14	LKA 147, 17. 148)	(MI R4	<b>147, 148)</b>	
Hydroge	n Sulfide (A4)		Loamy Gleved	Matrix (	F2)	,,	Piedmon	t Floodplain Soils (I	-19)
Stratified	Layers (A5)		Depleted Matr	ix (F3) `	,		(MLRA	A 136, 147)	,
2 cm Mu	ick (A10) <b>(LRR N)</b>		Redox Dark S	urface (F	6)		Very Shallow Dark Surface (TF12)		
Depleted	Below Dark Surface	(A11)	Depleted Dark	Surface	(F7)		Other (Ex	plain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depres	sions (F8	3)				
Sandy M	lucky Mineral (S1) (L	RR N,	Iron-Mangane	se Masse	es (F12) <b>(L</b>	RR N,			
MLRA Sandy G	A 147, 148)		MILRA 136	) (E12) <b>(</b>	MI DA 126	: 122)	<sup>3</sup> Indicators	of hydrophytic yogo	tation and
Sandy B	edox (S5)		Ombric Sunac Piedmont Floc	dolain S	oils (F19)	, 122) ΜΙ RΔ 14	.8) wetland h	drology must be p	resent
Stripped	Matrix (S6)		Red Parent Ma	aterial (F	21) (MLRA	127, 147	') unless dist	turbed or problema	tic.
Restrictive L	_ayer (if observed):				/ (	,	,		
Type: Cla	ау								
Depth (inc	ches): <u>12.0</u>		_				Hydric Soil Presen	t? Yes X	No
Remarks:							1		

Wetland WP-11



Soil







W



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/02/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-11
Investigator(s):	Section, Township, Range: S19 T14N R5W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.56998	Long:81.04589	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI class	sification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any and	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							

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

Sampling Point: Upland WP-11

20	Absolute	Dominant	Indicator	Dominance Test worksheet:				
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)				
2 3				Total Number of Dominant Species Across All Strata: 2 (B)				
4 5.				Percent of Dominant Species				
6.								
7				Prevalence Index worksheet:				
	:	= Total Cove	er	Total % Cover of: Multiply by:				
50% of total cover:	20% of	total cover:		OBL species $0$ $x = 0.0$				
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $25$ $x 2 = 50.0$				
1				FAC species $20$ x 3 = $60.0$				
2	<u> </u>			FACU species $60 \times 4 = 240.0$				
3				UPL species x 5 =0.0				
4.				Column Totals: <u>105</u> (A) <u>350.0</u> (B)				
5				Prevalence Index = $B/A = \frac{3.30}{1000}$				
6				Hydrophytic Vegetation Indicators:				
7				No 1 - Rapid Test for Hydrophytic Vegetation				
8				№ 2 - Dominance Test is >50%				
9				No 3 - Prevalence Index is $\leq 3.0^{1}$				
	<u> </u>	= Total Cove	er	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting				
50% of total cover:	20% of total cover:			data in Remarks or on a separate sheet)				
Herb Stratum (Plot size: 5)	40	Mara	FAOL	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
1. Antnoxantnum odoratum	40	Yes	FACU					
2. Dichanthelium clandestinum	20	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must				
3. Carex bromoides	25	Yes	FACW	be present, unless disturbed or problematic.				
4. Solidago canadensis	10	No	FACU	Definitions of Four Vegetation Strata:				
5. Poa annua	10	No	FACU					
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or				
7				height.				
8								
9				than 3 in. DBH and greater than or equal to 3.28 ft (1				
10				m) tall.				
11.				Herb All berbacoous (non woody) plants, regardless				
	105 = Total Cover			of size, and woody plants less than 3.28 ft tall.				
50% of total cover: <u>53</u>	20% of	total cover:	21					
Woody Vine Stratum (Plot size: <u>30</u> )				Woody vine – All woody vines greater than 3.28 ft in height.				
1								
2								
3								
4				Hydrophytic				
D				Vegetation Present? Yes No X				
E0% of total action	200/ of	= I otal Cove	er					
	20% 01	total cover.						
Remarks: (Include photo numbers here or on a separate	sneet.)							

L

Dophilt         Matrix         Redox Features           (inches)         Color (molsi)         %         Color (molsi)         %         Type         Loc <sup>2</sup> Texture         Remarks           8         12         10YR 5/3         80         10YR 4/6         20         Concen         M         Clay loam           - <td< th=""><th colspan="8">Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</th></td<>	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
(inches)         Color (moist)         %         Color (moist)         %         Type <sup>1</sup> Loc <sup>2</sup> Texture         Remarks           0         -8         10YR 3/2         100         Clay loam         Clay loam	Depth	Matrix		Redox	Features	S					
0         8         10YR 3/2         100         Clay loam           8         12         10YR 5/3         80         10YR 4/6         20         Concer         M         Clay           - <td>(inches)</td> <td>Color (moist)</td> <td>%</td> <td>Color (moist)</td> <td>%</td> <td>Type<sup>1</sup></td> <td>Loc<sup>2</sup></td> <td>Texture</td> <td></td> <td>Remarks</td> <td></td>	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
8       12       10YR 5/3       80       10YR 4/6       20       Concer       M       Clay         .       .       .       .       .       .       .       .       .         .       .       .       .       .       .       .       .       .         .       .       .       .       .       .       .       .       .         .       .       .       .       .       .       .       .       .         .       .       .       .       .       .       .       .       .       .         .	0 - 8	10YR 3/2	100					Clay loam			
.       .       .         .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .       .         .       .       .       .       .       .       .	8 - 12	10YR 5/3	80	10YR 4/6	20	Concen	М	Clav			
.       .       .         .       .       .       .         .       .       .       .       .         .       .       .       .       .         .       .       .       .       .       .         .       .       .       .											
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.       .         .											
-       -	-										
Image:	-										
-       -	-										
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Black Histic CA3       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N, <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present,         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Type:       Depth (inches):       Hydric Soil Present? Yes       No         Muck A100       Depleted Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       Sandy Redox (S5)       No         Mestrictive Layer (if observed):       T					. <u> </u>	<u> </u>					
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils":	<sup>1</sup> Type: C=Co	ncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: F	L=Pore Lini	ng, M=Matrix.	
	Hydric Soil I	ndicators:						Indic	ators for Pr	oblematic Hy	dric Soils':
	Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A	(MLRA 14	47)
	Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b> I	LRA 147,	, 148) (	Coast Prairie	Redox (A16)	
	Black His	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 14	17, 148)	_	(MLRA 14	7, 148)	
Stratified Layers (A5)	Hydroge	Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)					Pledmont Floodplain Soils (F19)				
2 cm Muck (A10) (LRR N)	Stratified	Stratified Layers (A5) Depleted Matrix (F3)					(MLKA 136, 147)				
Depleted Below Dark Surface (A11)     Depleted Dark Surface (F7)     Cother (Explain in Remarks)     Depleted Dark Surface (F7)     Cother (Explain in Remarks)     Redox Depressions (F8)     Iron-Manganese Masses (F12) (LRR N,     MLRA 147, 148)     MLRA 136)     Sandy Gleyed Matrix (S4)     Dubric Surface (F13) (MLRA 136, 122)     Sandy Redox (S5)     Piedmont Floodplain Soils (F19) (MLRA 148)     wetland hydrology must be present,     unless disturbed or problematic.  Restrictive Layer (if observed):     Type:     Depth (inches):     Depth (inches):	2 cm Muck (A10) (LRR N) Redox Dark Surface (F6)					very Snallow Dark Surface (1F12) Other (Explain in Remarks)					
Index Dark Sufface (A12)   Sandy Mucky Mineral (S1) (LRR N,   MLRA 147, 148)   Sandy Gleyed Matrix (S4)   Sandy Redox (S5)   Stripped Matrix (S6)   Restrictive Layer (if observed):   Type:   Depth (inches):   Remode Comparison   Depth (inches):   Remode Comparison   MLRA 147, 148   MLRA 136,   MLRA 136,   Mucky Mineral (S1) (LRR N, MLRA 136, MLRA 136, Mucky Mineral (S1) Mucky Mineral (S1) Mucky Mineral (S1) Mucky Mineral (S1) (MLRA 136, Mucky Mineral (S1) Mucky Mineral (S1) (MLRA 136, Mucky Mineral (S1) Mucky Mineral (S1) Mucky Mineral (S1) (MLRA 136, Mucky Mineral (S1) Mucky Mineral (S1) (MLRA 136, Mucky Mineral (S1) Mucky Mineral (S1) (MLRA 136, Mucky Mineral (S1) Mucky Mineral (S1) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X	Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)					_ (	other (Explai	n in Remarks)			
	Thick Da	IK SUITACE (ATZ)		Redux Depres	SSIONS (FO	D)					
		147 149)	KK N,		:50 IVIA550	es (F12) <b>(L</b>	KK N,				
	Sandy G	leved Matrix (S4)		Limbric Surfac	7) >= (F13) (	MI PA 136	: 122)	<sup>3</sup> Inc	licators of h	drophytic yea	etation and
	Sandy C	edox(S5)		Piedmont Flor	odolain S	oils (F19) (	, 122) MIRΔ 14	18) wa	etland hydrol	loav must be n	present
Restrictive Layer (if observed):	Stripped Matrix (S6) Red Parent Material (F21) (MI RA 127, 14					<ul> <li>unless disturbed or problematic.</li> </ul>					
Type:	Restrictive I	aver (if observed):				21) (iii2it)	,	.,			
Depth (inches):          Hydric Soil Present?         Yes         X	Type:										
Depth (incres) No	Depth (inc	hoo);						Undria Cai	Dresent?	Vac	No X
Homerice		iies).						nyuric Sol	Fresent?	162	
Remarks.	Remarks:										
Upland WP-11



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/02/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-12
Investigator(s):	Section, Township, Range: S19 T14N R5W	
Landform (hillslope, terrace, etc.): Footslope	_ Local relief (concave, convex, none): Concave	Slope (%): 20
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.56710	Long: <u>-81.04563</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI class	sification:
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology signification	antly disturbed? Are "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturall	y problematic? (If needed, explain any ans	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland? Ye	esXNo
Remarks:			

Wetland Hydrology Indicato	rs:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of	of one is required; cheo	ck all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)		True Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)		
X Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)				Moss Trim Lines (B16)		
Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduction in Tilled So	oils (C6)	Crayfish Burrows (C8)		
Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)		
Iron Deposits (B5)				X Geomorphic Position (D2)		
Inundation Visible on Aeri	ial Imagery (B7)			Shallow Aquitard (D3)		
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)		
Aquatic Fauna (B13)				X FAC-Neutral Test (D5)		
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Water Table Present? Saturation Present? (includes capillary fringe)	Yes <u>No X</u> Yes X No	_ Depth (inches):0	Wetland H	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No X Yes X No am gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>No X</u> Yes <u>X</u> No <u></u>	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No am gauge, monitoring	_ Depth (inches):0 _ Depth (inches):0 well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland H tions), if ava	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes X No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes <u>X</u> No ilable:		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes <u>X</u> No ilable:		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes <u>X</u> No ilable:		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes <u>X</u> No ilable:		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u> am gauge, monitoring	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes <u>X</u> No ilable:		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No X</u> Yes <u>X</u> No <u></u>	Depth (inches): Depth (inches): well, aerial photos, previous inspec	Wetland H	lydrology Present? Yes <u>X</u> No ilable:		

Sampling Point: Wetland WP-12

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 1 (A)
3	· · · · · · · · · · · · · · · · · · ·			
2	·			Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL_FACW_or FAC <sup>·</sup> 50% (A/B)
6.				
7	·			Prevalence Index worksheet:
/	·			Total % Cover of: Multiply by:
		= Total Cove	er	OBL species $30 \times 1 - 30.0$
50% of total cover:	20% of	total cover:		
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $35$ $x 2 = 70.0$
1.				FAC species x 3 =0.0
2				FACU species60 x 4 =240.0
2. <u></u>	·			UPL species $0 \times 5 = 0.0$
3	·			$\begin{array}{c} 125 \\ \hline \\ 125 \\ 125 \\ \hline \\ 125 \\ 125 \\ \hline \\ 125 \\ 1$
4				$\begin{array}{c} \text{Column rotals:} \underline{ 20} \\ \text{(A)} \\ \underline{ 01000} \\ \text{(B)} \end{array}$
5				Provalance Index = P/A = 2.70
6.				
7	·	·······	······	Hydrophytic Vegetation Indicators:
/	·			No 1 - Rapid Test for Hydrophytic Vegetation
8	·			No 2 - Dominance Test is >50%
9				$\frac{1}{Yes}$ 3 - Prevalence Index is <3 0 <sup>1</sup>
		= Total Cove	ər	$\sum_{n=1}^{\infty} 5^{-1} \text{ Trevalence index is } 25.0$
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot size: 5		·····		data in Remarks or on a separate sheet)
	10	No		No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex stipata	30	Yes	OBL	<sup>1</sup> Indiantors of hydric coll and watered hydrology must
<sub>3.</sub> Agrimonia parviflora	5	No	FACW	he present unless disturbed or problematic
⊿ Impatiens capensis	10	No	FACW	be present, unless disturbed of problematic.
Conoclea sensibilis	10	No	FACW	Definitions of Four Vegetation Strata:
D. Anthoxonthum adaratum	60	Vee	EACU	<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6. Antinoxantinum odoratum	00	165	FACU	more in diameter at breast height (DBH), regardless of
7				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
	·			man 3 m. DBH and greater than of equal to 3.26 m (1
10	·			
11				Herb – All herbaceous (non-woody) plants, regardless
	125	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>63</u>	20% of	total cover:	25	We advertee Allow a device a proster these 0.00 ft is
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
1				
l	·			
2				
3				
4				Hydrophytic
5.				Vegetation
	·	Total Cour		Present? Yes X No
E00/ of total opvior			<del>.</del>	
50% of total cover.	20% 01	total cover.		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	ription: (Describe t	o the dept	h needed to docum	ent the i	indicator o	r confirr	n the absence	of indicators.)
Depth	Matrix		Redox	Feature	<u>s</u> 1	. 2	_	
(inches)	Color (moist)		Color (moist)	%	Туре	Loc	<u>Texture</u>	Remarks
0 - 8	10YR 3/2	100					Clay loam	
8 - 18	10YR 3/2	70	10YR 5/8	25	Concen	М	Clay loam	
-			2.5YR 3/6	5	Concen	М		
-								
-								
-								
-								·
					·			
-					. <u> </u>			
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gra	ins.	<sup>2</sup> Location: PL	=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indica	tors for Problematic Hydric Soils":
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) <b>(MLRA 147)</b>
Histic Ep	pipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b>	LRA 147	, <b>148)</b> Co	past Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Sur	face (S9	) (MLRA 14	47, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleyed	d Matrix (	(F2)		Pi	edmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F	-6)		Ve	erv Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Darl	k Surface	e (F7)		01	ther (Explain in Remarks)
Thick Da	ark Surface (A12)	( )	Redox Depres	ssions (F	8)			
Sandy M	lucky Mineral (S1) (		Iron-Mangane	se Mass	es (F12) <b>(I</b>	RR N		
MLRA	147, 148)	,	MLRA 136	5) 5)	00 (I I <i>L</i> ) <b>(L</b>	,		
Sandy G	ileved Matrix (S4)		Umbric Surfac	ce (F13) (	(MLRA 136	6, 122)	<sup>3</sup> Indi	cators of hydrophytic vegetation and
Sandy R	edox(S5)		Piedmont Flor	odolain S	oils (F19) (	ΜI RΔ 1	<b>18)</b> wet	land hydrology must be present
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127.14	<b>7)</b> unle	ess disturbed or problematic.
Restrictive L	_ayer (if observed):				/ (	,	, .	
Туре:								
Depth (inc	ches):						Hydric Soil	Present? Yes X No
Remarks:								

Wetland WP-12













Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/02/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-12
Investigator(s):	Section, Township, Range: <u>S19 T14N R5W</u>	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>15</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.56705	Long:81.04560	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI classi	ification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	Intly disturbed? Are "Normal Circumstances	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	wers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							

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

# Sampling Point: Upland WP-12

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: (B)
4	<u> </u>			Percent of Dominant Species
5	<u> </u>			That Are OBL, FACW, or FAC: 0% (A/B)
6				
7.				Prevalence Index worksheet:
		- Total Cove	-r	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover		OBL species 0 x 1 = 0.0
Sopling/Shruh Stratum (Diataira) 15	2070 01	10101 00 001.		FACW species $0 \times 2 = 0.0$
				EAC species $0 \times 3 = 0.0$
1				$\frac{118}{118} \times \frac{1720}{1720}$
2				FACU species $4 = 472.0$
3				UPL species x 5 =0.0
4				Column Totals: <u>118</u> (A) <u>472.0</u> (B)
5.				
6.				Prevalence Index = B/A = 4.00
7				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is $\leq 3.0^{1}$
		= Total Cove	er	$N_0$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5 )				
1. Alliaria petiolata	3	No	FACU	Problematic Hydrophytic Vegetation (Explain)
2 Rosa multiflora	10	No	FACU	
<ul> <li>Dactylis glomerata</li> </ul>		Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Barbarea vulgaris	5	No	FACU	be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
5. Allium canadense	10	NO	FACU	Trace Manda de la de contratione de la (7.0 cm) en
6. Elymus villosus	20	No	FACU	Iree – woody plants, excluding vines, 3 in. (7.6 cm) or
7.				height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	118	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>59</u>	20% of	total cover:	24	
Woody Vine Stratum (Plot size: <sup>30</sup> )				woody vine – All woody vines greater than 3.28 ft in
1				
·				
Z				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove	er	Present? Yes No X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet)	_		
	,			

L

Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the in	dicator o	or confirm	n the absence	of indicato	rs.)	
Depth	Matrix		Redo	x Features	4					
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture		Remarks	
0 - 18	10YR 4/3	100					Clay loam			
-										
							·			
-										
-										
				·						
-										
-										
-										
				·		·				
-				·		<u> </u>				
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	S=Masked S	Sand Gra	ains.	<sup>2</sup> Location: PL	_=Pore Linir	ng, M=Matrix.	
Hydric Soil I	ndicators:						Indica	tors for Pr	oblematic Hy	dric Soils':
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A	(10) <b>(MLRA 1</b> 4	17)
Histic Ep	ipedon (A2)		Polyvalue Be	low Surface	e (S8) <b>(M</b>	LRA 147,	148) C	oast Prairie	Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9) (	(MLRA 1	47, 148)		(MLRA 14	7, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		Pi	edmont Flo	odplain Soils (	F19)
Stratified	Layers (A5)		Depleted Ma	trix (F3)				(MLRA 13	6, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6	5) 		V	ery Shallow	Dark Surface	(TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dai	'k Surface (	(F7)		0	ther (Explai	n in Remarks)	
I NICK Da	rk Surface (A12)		Redox Depre	SSIONS (F8)	) - (E40) <b>(</b>					
	ucky wineral (S1) (L	RR N,	Iron-Ivlangan		s (F12) <b>(</b>	_RR N,				
Sandy G	loved Matrix (S4)		IVILKA IJ	0) co (E12) (N		6 122)	<sup>3</sup> Indi	cotors of by	drophytic yog	otation and
Sandy B	edox (S5)		Onblic Suita	ndolain Soi		0, 122) (MI DA 14	1101 1 <b>8)</b> we	tland hydrol	oav must be n	recent
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	1) (MI R	Δ 127 147	7) unl	ess disturbe	ed or problem:	atic
Restrictive I	aver (if observed):					· · · · · · · · · · · · · · · · · · ·				
Type:										
Dopth (inc	hoo).						Undria Cail	Dreeent?	Vac	No X
Depth (inc	nes):						Hydric Soli	Present?	res	
Remarks:										
1										

Upland WP-12



Soil



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County		_ Sampling Date:
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland WP-13
Investigator(s): JFW	Section, Township, Range: S19	T14N R5W	
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none	): Concave	Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.564	41 Long: -81.04	548	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)		NWI classif	ication:
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes X No (If	no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "Normal C	ircumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic? (If needed, exp	olain any answ	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes No
Remarks:			

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         X Saturation (A3)       X Oxidized Rhizospheres on Living F         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled So         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)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Roots (C3)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>ils (C6)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present?     Yes     No     X     Depth (inches):       Water Table Present?     Yes     No     X     Depth (inches):	
Saturation Present?       Yes       X       No       Depth (inches):       4         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No
Saturation Present?       Yes X       No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No

Sampling Point: Wetland WP-13

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: $2$ (A)
3	· · · · · · · · · · · · · · · · · · ·			
2	·			Total Number of Dominant
3	·			Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL_FACW_or FAC <sup>-</sup> 100% (A/B)
6				
7	·			Prevalence Index worksheet:
/	·			Total % Cover of: Multiply by:
		= Total Cov	er	OBL species $60$ x 1 - $60.0$
50% of total cover:	20% of	total cover:		
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $300$ $x 2 = 1200$
1. Salix interior	30	Yes	FACW	FAC species $0   x 3 = 0.0$
2				FACU species25 x 4 =100.0
2. <u></u>	·			UPL species $0 \times 5 = 0.0$
3	·			$\frac{145}{280.0}$
4				Column rotals: (A) (B)
5				Provolonoo Indox - P/A = 1.90
6.				
7	· · · · · · · · · · · · · · · · · · ·			Hydrophytic Vegetation Indicators:
/	·			Yes 1 - Rapid Test for Hydrophytic Vegetation
8	·			Yes 2 - Dominance Test is >50%
9	. <u> </u>			$\frac{1}{Yes}$ 3 - Prevalence Index is <3 0 <sup>1</sup>
	30	= Total Cov	er	
50% of total cover: 15	20% of	total cover:	15	4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot size: 5			·	data in Remarks or on a separate sheet)
Carex stipata	60	Vec	OBI	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		165		
2. Juncus effusus	5	No	FACW	<sup>1</sup> Indiantors of hydric coll and watered hydrology must
3. Solidago canadensis	20	No	FACU	he present unless disturbed or problematic
4 Impatiens capensis	15	No	FACW	
- Phalaris arundinacea	10	No	FACW	Definitions of Four Vegetation Strata:
Colium opering	E	No	EACU	<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6. Galium aparine		INU	FACU	more in diameter at breast height (DBH), regardless of
7				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
	·			man 3 m. DBH and greater than of equal to 3.26 m (1
10	·			
11				Herb – All herbaceous (non-woody) plants, regardless
	115	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>58</u>	20% of	total cover:	23	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
1				
l	·			
2	·			
3				
4				Hydrophytic
5.				Vegetation
	·	Total Cau	or	Present? Yes X No
E00/ of total opvior	200/ of		ei	
50% of total cover.	20% 01	total cover.	<u> </u>	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	ription: (Describe t	o the depth	n needed to docur	nent the i	ndicator o	or confirm	n the absence	of indicators.)	
Depth	Matrix		Redo	x Features	<u>s</u> 1	. 2	_		
(inches)	Color (moist)		Color (moist)		Type'	Loc	Texture	Remarks	
0 - 18	Gley 1 5/10Y	80	7.5YR 3/4	20	Concen	PL,M	Clay loam		
-									
	·								
	·								
-									
-									
					·				
-									
-									
-									
<sup>1</sup> Type: C=Co	ncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	I Sand Gra	ins.	<sup>2</sup> Location: PL	_=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indica	tors for Problematic Hydric So	ls <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			2	cm Muck (A10) <b>(MLRA 147)</b>	
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	LRA 147,	, <b>148)</b> Co	oast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	irface (S9)	(MLRA 14	47, 148)		(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		Pi	edmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		Ve	ery Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Date	rk Surface	(F7)		Of	ther (Explain in Remarks)	
Thick Da	rk Surface (A12)		Redox Depre	essions (Fa	8)				
Sandy M	ucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(L</b>	.RR N,			
MLRA	147, 148)		MLRA 13	6)					
Sandy G	leyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b>	MLRA 136	6, <b>122)</b>	<sup>3</sup> Indi	cators of hydrophytic vegetation a	and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	MLRA 14	<b>18)</b> wet	tland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b> A	A 127, 147	7) unl	ess disturbed or problematic.	
Restrictive L	ayer (if observed):								
Туре:									
Depth (inc	hes):						Hydric Soil	Present? Yes X No _	
Remarks:							1		
l									
l									

Wetland WP-13



Soil







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Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/02/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-13
Investigator(s):	Section, Township, Range: S19 T14N R5W	
Landform (hillslope, terrace, etc.): Shoulder slope	_ Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.56444	Long:81.04547	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI classi	fication:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	vers in Remarks.)

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

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

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

# Sampling Point: Upland WP-13

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant
3				Species Across All Strata: (B)
4			<u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0% (A/B)
6				
7.				Prevalence Index worksheet:
		= Total Cove	er	Total % Cover of:Multiply by:
50% of total cover	20% of	total cover:		OBL species x 1 =0.0
Sopling/Shrub Stratum (Plot size: 15	20/001			FACW species $0 \times 2 = 0.0$
				EAC species 0 x 3 - 0.0
1		<u> </u>	<u> </u>	$\frac{100}{100} \times 3 = \frac{4000}{100}$
2				FACU species $4 = 400.0$
3				UPL species $0 \times 5 = 0.0$
4.				Column Totals: <u>100</u> (A) <u>400.0</u> (B)
5				4.00
6.	<u></u>			Prevalence Index = B/A = 4.00
7			<u> </u>	Hydrophytic Vegetation Indicators:
1				No 1 - Rapid Test for Hydrophytic Vegetation
8				№ 2 - Dominance Test is >50%
9				No. 3 - Prevalence Index is $\leq 3.0^{1}$
		= Total Cove	er	$N_{0}$ 4. Morphological Adaptations <sup>1</sup> (Brovide supporting
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )				data in Remarks or on a separate sheet)
Anthoxanthum odoratum	40	Yes	FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<ul> <li>Schedonorus arundinaceus</li> </ul>	40	Yes	FACU	
<ul> <li>Alliaria petiolata</li> </ul>	5	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	- <del></del>	No	FACU	be present, unless disturbed or problematic.
			FACO	Definitions of Four Vegetation Strata:
5. Rosa multiflora	5	NO	FACU	
6. Erigeron annuus	5	No	FACU	Iree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10			<u> </u>	iii) tali.
11			<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>50</u>	20% of	total cover:	20	Weedy vine All weedy vince greater than 2.20 ft in
Woody Vine Stratum (Plot size: <u>30</u> )				height
1.				
2				
2				
3		·		
4		. <u> </u>	<u> </u>	Hydrophytic
5				Vegetation
		= Total Cove	er	Present? Yes No ^
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

L

Profile Desc	ription: (Describe t	o the depth	n needed to docur	nent the ir	dicator	or confirm	the absence o	of indicato	rs.)		
Depth	Matrix		Redo	x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture		Remark	S	
0 - 16	10YR 4/2	100					Clay loam				
-											
-											
·						<u> </u>					
-											
-											
-											
·											
-											
-											
-											
	ncontration D-Don	otion PM-E	Poducod Matrix M	S-Mackad	Sand Gr	inc	<sup>2</sup> Location: PL	-Poro Linir	a M-Matri	v	
	ndicators:				Sanu Gra	aii 15.		ors for Pr	oblematic l	A. Hydric Soils	3.
Histosol	(A1)		Dark Surface	(\$7)			2 0	m Muck (A	10) <b>(MI RA</b>	147)	
Histic En	vipedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(N</b>	II RA 147.	148) <u> </u>	ast Prairie	Redox (A1)	6)	
Black His	stic (A3)		Thin Dark Su	Irface (S9)	(MLRA 1	47. 148)	00	(MLRA 14)	7. 148)	.,	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (F	-2)	, -,	Pie	, edmont Flo	odplain Soi	ls (F19)	
Stratified	Layers (A5)		Depleted Ma	trix (F3)	,			(MLRA 13	, 147)	( )	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6	5)		Ve	ry Shallow	Dark Surfa	ce (TF12)	
Depleted	Below Dark Surface	e (A11)	Depleted Date	rk Surface	(F7)		Ot	her (Explai	n in Remarl	ks)	
Thick Da	rk Surface (A12)		Redox Depre	essions (F8	)						
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(</b>	LRR N,					
MLRA	147, 148)		MLRA 13	6)			3				
Sandy G	leyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(I</b>	MLRA 13	6, 122)	Indic	cators of hy	drophytic v	egetation an	nd
Sandy R	edox (S5)		Piedmont Flo	odplain Sc	olls (F19)	(MLRA 14	8) wet	and hydrol	ogy must be	e present,	
Stripped	Matrix (56)		Red Parent N	/laterial (F2		A 127, 147	) unie	ess disturbe	ea or proble	matic.	
	ayer (if observed):										
Type: Old	· <u>·</u> · <u>·</u> 160									)	×
Depth (inc	thes): 10.0						Hydric Soil F	Present?	Yes	No	<u> </u>
Remarks:											

Upland WP-13





Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Sampling Date: 05/22/24
Applicant/Owner: FirstEnergy	State	: OH Sampling Point: Wetland WP-14
Investigator(s):	_ Section, Township, Range: S23 T13N	R5W
Landform (hillslope, terrace, etc.): Swale	ocal relief (concave, convex, none): <u>Co</u>	ncave Slope (%): <u>3</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.54578	Long: -81.04694	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	N	VI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No (If no, e	xplain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circum	nstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ig sampling point locations, tr	ansects, important features, etc.
1		

Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
. wetland drair	ns to the south outsid	de of the survey boundary		
	Yes X Yes X Yes X	Yes X No Yes X No Yes X No wetland drains to the south outsid	Yes       X       No       Is the Sampled Area within a Wetland?         Yes       X       No       within a Wetland?         Yes       X       No       No         wetland drains to the south outside of the survey boundary       No       No	Yes       X       No         Yes       X       No         Yes       X       No         Yes       X       No         wetland drains to the south outside of the survey boundary       Yes

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	<ul> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> </ul>
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes X No Depth (inches): 10	
Saturation Present? Yes X No Depth (inches): 6 (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspecti	ons), if available:
Remarks:	
mulitple primary and secondary hydrology indicators present. Sample point meets all 3 w	etland criteria.

Sampling Point: Wetland WP-14

20	Absolute Dominan	t Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 )	<u>% Cover Species</u>	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A	A)
2			Total Number of Dominant	, D)
4			Species Across All Strata:	в)
5			That Are OBL, FACW, or FAC:	A/B)
0 7			Prevalence Index worksheet:	
/			Total % Cover of: Multiply by:	
E0% of total action		ver	OBL species $30 \times 1 = 30.0$	
	20% OF total cove	ı. <u> </u>	FACW species $\frac{85}{x^2} = \frac{170.0}{x^2}$	
Sapling/Shrub Stratum (Plot Size: 10)	10	FACU	EAC species $0$ x 3 - $0.0$	
1. <u>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1</u>			$\frac{10}{10} \times 4 = \frac{40.0}{10}$	
2			$\begin{array}{c} \text{FACO species} \\ \hline \\ \text{HD} \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ \hline \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} x \\ 4 \\ \hline \\ 0 \\ \hline \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \hline \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\$	
3			UPL species $0$ $x = 0.0$	
4			Column Totals:(A)(A)	(B)
5			Prevalence Index = B/A = 1.90	
7			Hydrophytic Vegetation Indicators:	
7			1 - Rapid Test for Hydrophytic Vegetation	
8			Yes 2 - Dominance Test is >50%	
9			Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
_	10 = Total Co	ver	No 4 - Morphological Adaptations <sup>1</sup> (Provide suppo	ortina
50% of total cover: 5	20% of total cove	r: 5	data in Remarks or on a separate sheet)	. 3
Herb Stratum (Plot size: 5)			No. Broblematic Hydrophytic Magastation <sup>1</sup> (Explain)	
1. Juncus effusus	60	FACW		
2. Scirpus atrovirens	30	OBL	1	
<sub>3.</sub> Onoclea sensibilis	25	FACW	Indicators of hydric soil and wetland hydrology mu	ist
4			Definitions of Four Vegetation Strata:	
5				
6			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm	n) or
7			height.	5 01
8.				
9			<b>Sapling/Shrub</b> – Woody plants, excluding vines, le	ess (1
10			m) tall.	(1
11				
···-	115 = Total Co	ver	Herb – All herbaceous (non-woody) plants, regardl of size, and woody plants less than 3.28 ft tall.	ess
50% of total cover: 58	20% of total cove	r: 23		
Woody Vine Stratum (Plot size: 30			<b>Woody vine</b> – All woody vines greater than 3.28 ft	in
1			neight.	
2				
2				
4			Hydrophytic	
5			Vegetation	
	= Total Co	ver		
50% of total cover:	20% of total cove	r:		
Remarks: (Include photo numbers here or on a separate	sheet.)			
hydrophytic vegetation indicators present as dominance te	est > 50% and PI < 3			

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox	Features	S					
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc <sup>2</sup>	Texture	Remarks		
0 - 18	10YR 5/2		10YR 3/6	30	Concen	PL,M	Clay loam			
-										
-										
					·		·			
					·					
-										
-										
-										
·							<u> </u>			
-										
-										
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	=Masked	I Sand Gra	ins.	<sup>2</sup> Location: PL=	Pore Lining, M=Matrix.		
Hydric Soil I	ndicators:						Indicato	ors for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Dark Surface	(S7)			2 cm	m Muck (A10) <b>(MLRA 147)</b>		
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b>	LRA 147,	148) <u> </u> Coa	ast Prairie Redox (A16)		
Black His	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 14	47, 148)	1)	MLRA 147, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleyed	d Matrix (	F2)		Piec	dmont Floodplain Soils (F19)		
Stratified	Layers (A5)		X Depleted Mat	rix (F3)			1)	MLRA 136, 147)		
2 cm Mu	ck (A10) <b>(LRR N)</b> L Delevy Derk Surface	( \ 1 1 )	Redox Dark S	Surface (F	·6) (Г7)		Very	Other (Explain in Remarks)		
Depieted	r Below Dark Surface	(ATT)	Depleted Dali	ssions (Fi	( <i>Г1)</i> B)		Oth	er (Explain in Remarks)		
Sandy M	lucky Mineral (S1) (		Ited0X Depres	se Massi	o) es (F12) <b>(I</b>	RRN				
<u> </u>	147. 148)	,	MLRA 136	5)	00 (I IZ) <b>(</b>	,				
Sandy G	leyed Matrix (S4)		Umbric Surfac	, ce (F13) <b>(</b>	MLRA 136	6, 122)	<sup>3</sup> Indica	ators of hydrophytic vegetation and		
Sandy R	edox (S5)		Piedmont Floo	odplain S	oils (F19) <b>(</b>	MLRA 14	<b>18)</b> wetla	and hydrology must be present,		
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLRA</b>	127, 147	7) unles	ss disturbed or problematic.		
Restrictive L	ayer (if observed):									
Туре:										
Depth (inc	ches):						Hydric Soil Pr	resent? Yes X No		
Remarks:							<u> </u>			





W

Wetland WP-14



Soil

Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-14
Investigator(s):	_ Section, Township, Range: S23 T13N R5W	
Landform (hillslope, terrace, etc.): Hillside	_ocal relief (concave, convex, none): Flat	Slope (%): <u>4</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.54582	Long:81.04694	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI clas	ssification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "Normal Circumstanc	es" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any ar	nswers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ng sampling point locations, transe	ects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No		
Remarks:								
upland adjacent to PEM wetland swale along access								

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Presence of Reduced Iron (C4)</li> <li>Sediment Deposits (B2)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No Concern Depth (inches):	
Water Table Present? Yes <u>No A</u> Depth (inches):	Y
Saturation Present? Yes <u>No </u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	
no hydrology indicators present. sample point does not meet any of the wetland criteria	

Sampling Point: Upland WP-14

Tree Stratum (Plot size: 30       % Cover       Species?       Status       Number of Dominant Species         1
1
2
3
4.       Percent of Dominant Species         5.       0%       (A/B)         6.       That Are OBL, FACW, or FAC:       0%       (A/B)         7.       = Total Cover       Total % Cover of:       Multiply by:         50% of total cover:       20% of total cover:       Total % Cover of:       Multiply by:         7.
5.       Prevalence Ind building bedies       0%       (A/B)         6.       That Are OBL, FACW, or FAC:       0%       (A/B)         7. $=$ Total Cover       Display for the size interval of the size in
6.
7.
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
50% of total cover:       20% of total cover:       OBL species       0 $x 1 = 0.0$ Sapling/Shrub Stratum (Plot size: 15)       1       FACW species       0 $x 2 = 0.0$ FAC species       0 $x 3 = 0.0$ FAC species       0 $x 3 = 0.0$ 2.           FAC species       0 $x 3 = 0.0$ 3.                4.                6.                9.             No       1 · Rapid Test for Hydrophytic Vegetation         1.                                     <
Sapling/Shrub Stratum (Plot size: 15
1.       FAC species       0       x 3 =       0.0         2.       3.       4.       Second       360.0         3.       4.       10       x 5 =       50.0         4.       5.       50.0       (A)       410.0       (B)         5.       5.       50.0       (A)       410.0       (B)         6.       7.
2
3.
4
5.
3.
6.
7.
8.
9.
50% of total cover:       20% of total cover:       Image: second
Herb Stratum (Plot size: 5       )         1. Schedonorus arundinaceus       80       FACU         2. Glechoma hederacea       10       FACU         3. Plantago lanceolata       10       UPL         4.       10       UPL         5.
1. Schedonorus arundinaceus       80       FACU       FACU         2. Glechoma hederacea       10       FACU       1         3. Plantago lanceolata       10       UPL       1       1         4.       10       UPL       1       1       1       1         5.          Definitions of Four Vegetation Strata:         7.          Definitions of Four Vegetation Strata:         8.           Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         8.           Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         10.           Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3 28 ft tall
2. Glechoma hederacea       10       FACU         3. Plantago lanceolata       10       UPL         4.       10       UPL         5.       Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         6.       Image: Comparison of the present of the
3. Plantago lanceolata       10       UPL       'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         4.
4
5
6
0.
7
8.
9.
10
11 Herb – All herbaceous (non-woody) plants, regardless
100 - Total Cover of size and woody plants less than 3.28 ft tall
50% of total cover: 50 20% of total cover: 20 Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: <u>30</u> ) height.
1
2
3
4.
5. Vegetation
– Total Cover Present? Yes No X
50% of total cover: 20% of total cover:
Pemarke: (Include photo numbers here or on a concrete sheet.)
no hydric soil indicators present

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Features	1				
(inches)	Color (moist)		Color (moist)	%	Type'	Loc <sup>2</sup>	<u>Texture</u>	Remark	3
0 - 8	10YR 5/4	100					Clay loam		
-									
-									
-									
-									
-									
-									
-									
-									
-									
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=F	Pore Lining, M=Matri	х.
Hydric Soil I	ndicators:						Indicato	rs for Problematic	Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm	n Muck (A10) <b>(MLRA</b>	147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(M</b>	LRA 147,	148) <u>Coa</u>	st Prairie Redox (A1	6)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(N	/ILRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)		Pied	Imont Floodplain Soi	IS (F19)
Stratified			Depleted Mat	trix (F3) Sumfana (E(	2)		(N	/ILRA 136, 147)	
2 cm iviu	ICK (ATU) <b>(LKK N)</b> I Bolow Dork Surface	(11)	Redox Dark 3	Sunace (Ft	) (E7)		Very	Shallow Dark Suna	ce (TF12)
Depieted	a below Dark Sullace	(ATT)	Depieted Dai	K Sunace				er (Explain in Reman	(5)
Thick Da	lucky Minoral (S1) /				) c (E12) <b>/I</b>				
Oanuy IV	147, 148)	іхіх <b>іч</b> ,	MLRA 13	6)	(1 12) <b>(1</b>	,			
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indica	tors of hydrophytic v	egetation and
Sandy R	edox (S5)		Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	(8) wetla	nd hydrology must be	e present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	21) (MLR	A 127, 147	7) unles	s disturbed or proble	matic.
Restrictive L	_ayer (if observed):								
Type: Cla	ау								
Depth (inc	ches): 12.0						Hydric Soil Pr	esent? Yes	NoX
Remarks:							1		

Upland WP-14



Soil



Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Sampling Date:_05/23/24
Applicant/Owner: FirstEnergy	State: OF	H Sampling Point: Wetland WP-15
Investigator(s): JBL	_ Section, Township, Range: S23 T13N R5V	N
Landform (hillslope, terrace, etc.): Lowland	ocal relief (concave, convex, none): <u>Concav</u>	Ve Slope (%):_0
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.53175	Long: <u>-81.04656</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)	NWI cl	assification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No (If no, explai	in in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circumstan	nces" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any a	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, trans	sects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	YesX No				
Remarks:							
PEM wetland in vally bottom adjacent to perennial North Fork McGuire Creek. Small PEM swale delineated on hillside north of the valley bottom.							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes X No Depth (inches): 12	
Saturation Present? Yes X No Depth (inches): 0 Wetlan (includes capillary fringe)	d Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	available:
Remarks:	
multiple primary and secondary indictors present. Wetland adjacent to perennial stream	

Sampling Point: Wetland WP-15

20	Absolute	Dominant Ir	dicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 )	% Cover	Species?	<u>Status</u>	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: 2	(A)
2	·			Total Number of Dominant	
3	·			Species Across All Strata: 2	(B)
4					. ,
5.				Percent of Dominant Species	(
6	·				(A/D)
7				Prevalence Index worksheet:	
/·		Tatal Cause		Total % Cover of: Multiply by:	
E0% of total accurate	=	atel equer		OBL species $40 \times 1 = 40.0$	
So% of total cover.	20% 011			EACW species $\frac{80}{x^2} = \frac{160.0}{x^2}$	•
Sapling/Shrub Stratum (Plot size: 19				EAC species $0$ x 2 = $0.0$	•
1	·			1  AC species $3$	•
2				FACU species $x_4 = 0.0$	-
3				UPL species $0 \times 5 = 0.0$	-
4				Column Totals: <u>120</u> (A) <u>200.0</u>	(B)
5.				$\mathbf{D}_{\mathrm{rescharge}} = \mathbf{D} (\mathbf{A} + 170)$	
6.				Prevalence Index = B/A = 1.70	•
7				Hydrophytic Vegetation Indicators:	
,. <u> </u>				Yes 1 - Rapid Test for Hydrophytic Vegetation	
8				Yes 2 - Dominance Test is >50%	
9	·			Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	=	Total Cover		No 4 - Morphological Adaptations <sup>1</sup> (Provide supp	orting
50% of total cover:	20% of t	otal cover:		data in Remarks or on a separate sheet)	0
Herb Stratum (Plot size: <u>5</u> )				No. Droblomatic Hydrophytic V/contation <sup>1</sup> (Explain	2)
1. Phalaris arundinacea	80		FACW		1)
2. Symplocarpus foetidus	40		OBL	1	
3.				'Indicators of hydric soil and wetland hydrology m	lust
4				be present, unless disturbed of problematic.	
5				Definitions of Four Vegetation Strata:	
<u> </u>	·			Tree – Woody plants, excluding vines, 3 in. (7.6 c	m) or
6	·			more in diameter at breast height (DBH), regardle	ess of
7	·			height.	
8	·			Sapling/Shrub – Woody plants, excluding vines.	less
9	·			than 3 in. DBH and greater than or equal to 3.28	ft (1
10				m) tall.	
11				Herb - All berbaceous (non-woody) plants, regar	مالمعع
	120 _	Total Cover		of size, and woody plants less than 3.28 ft tall.	0000
50% of total cover: 60	20% of t	otal cover: 2	4		
Woody Vine Stratum (Plot size: 30				<b>Woody vine</b> – All woody vines greater than 3.28	ft in
1					
·	·				
<u></u>	·		·		
3	·				
4	·			Hydrophytic	
5				Vegetation	
	=	Total Cover		Present? Yes <u>^ No</u>	
50% of total cover:	20% of t	otal cover:			
Remarks: (Include photo numbers here or on a separate s	sheet.)			1	
hydrophytic vegetation indicators present as dominance test	st >50% and	PI less than	3		

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox	Features	S1	2			
(inches)	Color (moist)		Color (moist)	%	Type'	Loc	Texture	Remarks	
0 - 18	10YR 5/1	95	10YR 4/4	5	Concen	M	Clay loam	Muck	
-									
-									
-									
-									
-									
-									
-									
<sup>1</sup> T				Maaluad			<sup>2</sup>	- Deve Lining M. Metric	
Type: C=Co	ncentration, D=Deple	R $R$ $R$ $R$ $R$ $R$ $R$ $R$ $R$ $R$	educed Matrix, MS	=IVIasked	Sand Gra	ins.	Location: P	L=Pore Lining, M=Matrix.	
Histopol	(A 1)		Dark Surface	(87)			2	and short replematic right const.	
Histosol	(AT) inodon (A2)			(SI)	oo (S8) (M	DA 147	149) 2	Continuck (A10) (MERA 147)	
Black His	tic (A3)		Toryvalue Bel	face (SQ)		LIXA 147, 17 148)	, 140) 0	(MI RA 147 148)	
Hydroge	n Sulfide (A4)		Loamy Gleve	d Matrix (	F2)	, 140)	Р	Viedmont Floodplain Soils (F19)	
<u>Stratified</u>	Lavers (A5)		X Depleted Mat	rix (F3)	)			(MLRA 136. 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		V	ery Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)		
Thick Da	rk Surface (A12)		Redox Depres	ssions (F8	3)				
Sandy M	ucky Mineral (S1) <b>(L</b> l	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(L</b>	RR N,			
MLRA	147, 148)		MLRA 136	5)					
Sandy G	leyed Matrix (S4)		Umbric Surface	ce (F13) <b>(</b>	MLRA 136	5, 1 <b>22</b> )	<sup>3</sup> Ind	licators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	MLRA 14	<b>48)</b> we	atland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent N	laterial (F	21) <b>(MLRA</b>	127, 14	<b>7)</b> un	less disturbed or problematic.	
Restrictive L	ayer (if observed):								
Туре:			_						
Depth (inc	hes):						Hydric Soil	Present? Yes X No	
Remarks:							- <b>I</b>		

Wetland WP-15



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W

Wetland WP-15



Soil

Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Samplin	g Date: 05/23/24
Applicant/Owner: FirstEnergy		State: OH Samp	ling Point: Upland WP-15
Investigator(s): JBL	_ Section, Township, Range: S23	[13N R5W	
Landform (hillslope, terrace, etc.): Hillside	ocal relief (concave, convex, none)	Convex	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat:40.53170	Long: -81.04	654	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Coshocton-Berks (s6121)		_ NWI classification: PE	EM1A
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes X No (If	no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal C	rcumstances" present?	Yes X No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, exp	lain any answers in Rem	narks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point location	s, transects, impor	tant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	x
Remarks:							
upland for valley bottom PEM wetland							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	apply) Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Hydroge</li> <li>Saturation (A3)</li> <li>Oxidize</li> <li>Water Marks (B1)</li> <li>Presend</li> <li>Sediment Deposits (B2)</li> <li>Recent</li> <li>Drift Deposits (B3)</li> <li>Thin Mu</li> <li>Algal Mat or Crust (B4)</li> <li>Other (B</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	uatic Plants (B14)
Field Observations:         Surface Water Present?       Yes NoX Depth         Water Table Present?       Yes NoX Depth         Saturation Present?       Yes NoX Depth         (includes capillary fringe)       Depth Depth	inches): (inches): (inches): Wetland Hydrology Present? Yes NoX
Remarks: no hydrology indicators present. Sample point does not meet a	iny of the wetland criteria.

# Sampling Point: Upland WP-15

	Absolute	Dominant I	Indicator	Dominance Test worksheet:				
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species				
1				That Are OBL, FACW, or FAC: (A)				
2				Total Number of Dominant				
3.				Species Across All Strata: 4 (B)				
4				(-)				
5				Percent of Dominant Species				
				That Are OBL, FACW, or FAC: (A/	B)			
б				Prevalence Index worksheet:				
7				Total % Cover of: Multiply by:				
	= Total Cover							
50% of total cover:	20% of total cover:			$\frac{\text{OBL species}}{5} = \frac{5}{100}$				
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $5 \times 2 = 10.0$				
1. Ostrya virginiana	5		FACU	FAC species $x 3 = {150.0}$				
2. Rosa multiflora	10		FACU	FACU species 65 x 4 = 260.0				
3				UPL species x 5 =0.0				
3				Column Totals: 120 (A) 420.0 (B	3)			
4					.,			
5				Prevalence Index = $B/A = \frac{3.50}{1000}$				
6				Hydrophytic Vegetation Indicators:				
7				No. 1 Papid Tast for Hydrophytic Vagotation				
8.								
9				2 - Dominance Test is >50%				
	15	- Total Cove		No 3 - Prevalence Index is ≤3.0				
50% of total cover: 8	20% of	total cover:	<sup>51</sup> 8	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting				
Utark Otratium (Distraine 5	2078 01		<u> </u>	data in Remarks or on a separate sheet)				
Anthoxonthum adaratum	50		EACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
			FACO					
2. Juncus tenuis	20		FAC	<sup>1</sup> Indiastore of hydric coil and watland hydrology must				
3. Carex cristatella	5 FACW			be present unless disturbed or problematic				
4. Dichanthelium clandestinum	30		FAC	Definitions of Four Vegetation Strates				
5				Deminions of Four vegetation Strata.				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of	or			
o				more in diameter at breast height (DBH), regardless of	of			
7		<u> </u>		height.				
8		. <u> </u>		Sapling/Shrub – Woody plants, excluding vines, less	\$			
9				than 3 in. DBH and greater than or equal to 3.28 ft (1	, ,			
10				m) tall.				
11.								
	105	- Total Cove		of size and woody plants less than 3.28 ft tall	s			
50% of total cover: 53	20% of total cover: 21							
Weeder Vine Chatter (Plat size: 30	2070 01			Woody vine - All woody vines greater than 3.28 ft in				
(Plot size)				height.				
1		. <u> </u>						
2								
3								
4.				the described's				
5				Hydrophytic				
···		- Total Cove		Present? Yes No X				
50% of total cover	20% of total cover							
	20 % 01	total cover.						
Remarks: (Include photo numbers here or on a separate	sneet.)							
no hydrophytic vegetation indicators present.								

Profile Desc	ription: (Describe t	o the depth n	eeded to docur	nent the in	dicator o	or confirm	n the absence o	of indicato	rs.)		
Depth	Matrix		Redox Features								
(inches)	Color (moist)		Color (moist)		Type'	Loc <sup>2</sup>	Texture		Remarks		_
0 - 6	10YR 3/4	100					Silty loam				
-											
-											
											_
·							·				—
-							. <u> </u>				_
-											
-											
-											_
-											_
											—
-											
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	lins.	<sup>2</sup> Location: PL	=Pore Linir	ng, M=Matrix		
Hydric Soil I	ndicators:						Indicat	ors for Pr	oblematic H	ydric Soils":	
Histosol	(A1)	-	Dark Surface	(S7)			2 c	m Muck (A	(10) <b>(MLRA</b>	147)	
Histic Ep	apedon (A2)	-	Polyvalue Be This Dark Su	low Surfac	e (S8) (M	LRA 147,	148) <u> </u>	ast Prairie	Redox (A16)	)	
Black Histic (A3) Inin Dark Surface (S9) (MLRA 147, 148)						47, 140)	Piedmont Floodplain Soils (F19)				
Stratified Lavers (A5) Depleted Matrix (F2)							(MLRA 136, 147)				
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6)							Very Shallow Dark Surface (TF12)				
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)							Ot	her (Explai	n in Remarks	3)	
Thick Da	rk Surface (A12)	-	Redox Depre	essions (F8	)						
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(l</b>	.RR N,					
MLRA	147, 148)		MLRA 13	6)			3				
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)						"Indic	ators of hy	drophytic ve	getation and		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14						18) Weti 7) unic	and nydrol	ogy must be	present,		
Supped	aver (if observed):			laterial (F2		4 127, 147		iss distuibe		ialic.	
	ck										
Dopth (inc	(hea), 6.0		-				Hudria Sail [	Procont?	Vac	No X	
	лтоз). <u> </u>		-					1CSCIIL!	103		. <u> </u>
Remarks:											
Upland WP-15







Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Samplin	g Date: 05/22/24
Applicant/Owner: FirstEnergy	(	State: OH Samp	ling Point: Wetland WP-16
Investigator(s): MJA	_ Section, Township, Range: S22 1	13N R5W	
Landform (hillslope, terrace, etc.): Floodplain	ocal relief (concave, convex, none)	Concave	Slope (%): 0-2
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.52336	Long: -81.047	06	Datum: NAD 83
Soil Map Unit Name: Or: Orrville silt loam, 0 to 3 percent slopes, occ	asionally flooded	NWI classification: R5	SUBH
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No (If r	no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Ci	rcumstances" present?	Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, exp	ain any answers in Rem	arks.)
SUMMARY OF FINDINGS – Attach site map showin	ng sampling point locations	s, transects, impor	tant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:						
PEM wetland in floodplain of tributary to	North F	ork Mc	Guire Creek. Forme	ID: W-BCR-5/23/2018-5		

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>X Drainage Patterns (B10)</li> <li>Roots (C3) Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>ils (C6) Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> </ul>
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present?       Yes       No       X       Depth (inches):         Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       X       No       Depth (inches):         Gincludes capillary fringe)       Yes       No       Depth (inches):       6         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes X No
Remarks:	

Sampling Point: Wetland WP-16

22	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Tatal Number of Deminant
3.				Species Across All Strata: 1 (B)
4				
5				Percent of Dominant Species
3				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	r	
50% of total cover:	20% of	total cover:		$\frac{1500}{75}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $73$ x 2 = $130.0$
1				FAC species $0   x 3 = 0.0$
2.				FACU species25 x 4 =100.0
3				UPL species x 5 =0.0
аа				Column Totals: 130 (A) 280.0 (B)
	. <u> </u>			
S	·			Prevalence Index = B/A = 2.20
ΰ	. <u> </u>	·		Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				$\underline{Y}_{\text{PS}}^{\text{Yes}}$ 2. Drevelence index is <2.0 <sup>1</sup>
		= Total Cove	r	$\frac{1}{100}$ 3 - Prevalence index is $\leq 3.0$
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size <sup>, 5</sup> )		-		data in Remarks or on a separate sheet)
Phalaris arundinacea	70		FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<ul> <li>Symplecarpus feetidus</li> </ul>	15		OBI	
	15			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	10		FACU	be present, unless disturbed or problematic.
4. Urtica dioica	10		FACU	Definitions of Four Vegetation Strata:
5. Typha latifolia	15		OBL	
<sub>6.</sub> Onoclea sensibilis	5		FACW	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				height.
8				linging
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	130	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>65</u>	20% of	total cover:	26	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3.				
4				
5				Hydrophytic Versitetier
J				Present? Yes X No
<b>5</b> 00/ of total access	000/ - (	= Total Cove	er	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

L

# SOIL

Profile Desc	ription: (Describe to	o the depth	needed to docum	ent the i	ndicator o	r confirr	m the absence of indicators.)
Depth	Matrix		Redox	Feature	S		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0 - 8	10YR 3/2	95	7.5YR 4/6	5	Concen	М	Silty loam
8 - 16	10YR 4/2	95	7.5YR 4/6	5	Concen	PL	Silty loam Sandy
-					······		
					·		·
				. <u> </u>			· ·
-							· ·
-							
-							
-							
	·			·			
				. <u> </u>			· ·
-							
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	=Masked	d Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b>	LRA 147	7, 148) Coast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark Sur	face (S9)	) <b>(MLRA 1</b> 4	47, 148)	(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleyed	d Matrix (	F2)		Piedmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Mate	rix (F3)			(MLRA 136, 147)
2 cm Mu	ck (A10) <b>(LRR N)</b>		X Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dark	< Surface	e (F7)		Other (Explain in Remarks)
Thick Da	rk Surface (A12)		Redox Depres	ssions (F	8)		
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Mass	es (F12) <b>(L</b>	RR N,	
MLRA	. 147, 148)		MLRA 136	5)			
Sandy G	leyed Matrix (S4)		Umbric Surface	ce (F13) <b>(</b>	(MLRA 136	5, <b>122)</b>	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Floo	odplain S	oils (F19) <b>(</b>	MLRA 1	<b>48)</b> wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	aterial (F	21) <b>(MLRA</b>	127, 14	(7) unless disturbed or problematic.
Restrictive L	ayer (if observed):						
Туре:							
Depth (inc	hes):						Hydric Soil Present? Yes X No
Remarks:							-

Wetland WP-16











W

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-16
Investigator(s):	Section, Township, Range: S22 T13N R5W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>10-20</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.52347	Long: <u>-81.04715</u>	Datum: NAD 83
Soil Map Unit Name: WmC: Westmoreland-Coshocton silt loams, 8	8 to 15 percent slopes NWI classi	ification: N/A
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Normal Circumstances	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	v problematic? (If needed, explain any answ	wers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							
Upland data point on slope in routinely	maintained pow	erline F	ROW.				

wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	<ul> <li>Sufface Soll Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> </ul>
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No </u> Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present?       Yes       No         tions), if available:

# Sampling Point: Upland WP-16

22	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Deminent
3.				Species Across All Strata: 5 (B)
4.				(=,
5				Percent of Dominant Species
3. <u> </u>		·		That Are OBL, FACW, or FAC:(A/B)
o		·		Prevalence Index worksheet:
<i>I</i>				Total % Cover of: Multiply by:
		= Total Cove	er	$\frac{1}{\text{OBL species}} \qquad 0 \qquad \text{y 1} = 0.0$
50% of total cover:	20% of	total cover:		$\frac{25}{50.0}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $25$ $x_2 = 750$
1. Rubus allegheniensis	30		FACU	FAC species $23$ $x 3 = 73.0$
2. Rosa multiflora	15		FACU	FACU species $85 \times 4 = 340.0$
3.				UPL species $0$ x 5 = $0.0$
4				Column Totals: <u>135</u> (A) <u>465.0</u> (B)
5				0.40
3				Prevalence Index = $B/A = \frac{3.40}{1.000}$
o				Hydrophytic Vegetation Indicators:
7		<u> </u>		No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				$N_0$ 3 - Prevalence Index is $\leq 3.0^1$
	45	= Total Cove	er	No. 4. Marphalagical Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>23</u>	20% of	total cover:	23	
Herb Stratum (Plot size: <sup>5</sup> )				data in Remarks or on a separate sheet)
1 Dichanthelium clandestinum	25		FAC	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<ul> <li>Phalaris arundinacea</li> </ul>	25		FACW	
2. Anthoxanthum odoratum	20		FACIL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. <u>Autocalitation odoratation</u>		. <u> </u>	FACU	be present, unless disturbed or problematic.
			FACU	Definitions of Four Vegetation Strata:
5. Achillea millefolium	5		FACU	
6				Iree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH) regardless of
7.				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10				m) tall
11				Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	er 10	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45	20% of	total cover:	10	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4.				
5				Hydrophytic
<u>.</u>		Total Caur		Present? Yes No X
50% of total cover	20% of	total cover:	1	
	20 /0 01	total cover.		
Remarks: (include photo numbers here or on a separate	sneet.)			

Depth	Matrix		Redo	ox Features		-	
(inches)	Color (moist)	%	Color (moist)	% Тур	be <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/3	100				Silty clay loam	
				<u> </u>			
-							
-							
-							
				<u> </u>			
-							
-							
-							
-							
vpe: C=Co	ncentration. D=Dep	letion. RM=	Reduced Matrix. M	S=Masked Sand	d Grains.	<sup>2</sup> Location: PL=F	Pore Lining, M=Matrix,
ydric Soil I	ndicators:	,	,			Indicato	rs for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)		2 cm	n Muck (A10) <b>(MLRA 147)</b>
Histic Ep	ipedon (A2)		Polvvalue Be	elow Surface (S8	B) (MLRA 14	7. 148) Coa	st Prairie Redox (A16)
Black His	stic (A3)		Thin Dark S	urface (S9) (MLF	RA 147, 148)	) (N	ILRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix (F2)		Pied	Imont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Ma	atrix (F3)		(N	/LRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F6)		Very	Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Da	rk Surface (F7)		Othe	er (Explain in Remarks)
Thick Da	rk Surface (A12)		Redox Depr	essions (F8)			
_ Sandy M	ucky Mineral (S1) (L	.RR N,	Iron-Mangar	nese Masses (F1	2) <b>(LRR N,</b>		
MLRA	147, 148)		MLRA 13	86)			
_ Sandy G	leyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(MLR</b>	A 136, 122)	<sup>3</sup> Indica	tors of hydrophytic vegetation and
_ Sandy R	edox (S5)		Piedmont Fl	oodplain Soils (F	19) <b>(MLRA</b>	148) wetla	nd hydrology must be present,
_ Stripped	Matrix (S6)		Red Parent	Material (F21) (N	MLRA 127, 1	47) unles	s disturbed or problematic.
estrictive L	ayer (if observed):						
Туре:							
Depth (inc	hes):					Hydric Soil Pr	esent? Yes No X
	,					,	

Upland WP-16





Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	Sta	te: <u>OH</u> Sampling Point: <u>Wetland WP-17</u>
Investigator(s): MJA	Section, Township, Range: S22 T13	N R5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): _	Tat Slope (%): <u>2-5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.51495	Long: -81.04739	Datum: NAD 83
Soil Map Unit Name: WmC: Westmoreland-Coshocton silt loams, 8	to 15 percent slopes	NWI classification: <u>N/A</u>
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 significan	tly disturbed? Are "Normal Circu	mstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain	n any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locations,	transects, important features, etc.

Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
eld. Likely receives seep water. For	mer ID: W-BCR-5/23/2018-4	
	Yes X No Yes X No Yes X No Yes X No	Yes       X       No       Is the Sampled Area within a Wetland?         Yes       X       No       within a Wetland?         Yes       X       No       No         eld. Likely receives seep water. Former ID: W-BCR-5/23/2018-4

Wettand Hydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         Saturation (A3)       X       Oxidized Rhizospheres on Living         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled So         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)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present?       Yes No _^_ Depth (inches):         Saturation Present?       Yes No _X_ Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present?       Yes       X       No         tions), if available:
Remarks:	

Sampling Point: Wetland WP-17

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	<u>% Cover Species?</u> Status	Number of Dominant Species
1		That are OBL, FACW, of FAC: (A)
3		Total Number of Dominant         Species Across All Strata:         1         (B)
4 5		Percent of Dominant Species That Are OBL_EACW_or_EAC: 100% (A/B)
6		
7		Prevalence Index worksheet:
	= Total Cover	Total % Cover of: Multiply by:
50% of total cover:	20% of total cover:	OBL species x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15 )		FACW species101 x 2 =202.0
1.		FAC species $0   x 3 = 0.0$
2		FACU species x 4 =0.0
3		UPL species 0 x 5 = 0.0
۵ ۵		Column Totals: (A) (B)
5		Prevalence Index = $B/A = 2.00$
6		Hydrophytic Vegetation Indicators:
7		Yes 1 - Rapid Test for Hydrophytic Vegetation
8		Yes 2 Deminence Test in 2 50%
9		$\frac{100}{2}$ 2 - Dominance Test is >50%
	= Total Cover	$\frac{100}{100}$ 3 - Prevalence index is $\leq 3.0$
50% of total cover:	20% of total cover:	4 - Morphological Adaptations" (Provide supporting
Herb Stratum (Plot size: 5)		data in Remarks or on a separate sheet)
1. Phalaris arundinacea	100 FACW	No Problematic Hydrophytic Vegetation (Explain)
2 Agrimonia parviflora	1 FACW	
3		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic
4		Definitions of Four Vegetation Strata:
5.		Demitions of Four Vegetation Strata.
6.		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
7		more in diameter at breast height (DBH), regardless of height
8		holym
۵		<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10		man 3 m. DBH and greater than of equal to 3.28 ft (1
11		
	101 = Total Cover	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>51</u> <u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	20% of total cover: 20	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		I hadron ha tin
5.		Vegetation
	= Total Cover	Present? Yes X No
50% of total cover:	20% of total cover:	
Remarks: (Include photo numbers here or on a separate	sheet.)	1

Depth	Matrix		Redo	ox Feature	s			
nches) (	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
) - 16	10YR 4/2	95	7.5YR 4/6	5	Concen	PL	Clay loam	
-								
		·					·	
		<u> </u>					·	
-								
							·	
							·	
							·	
-								
							2	
pe: C=Concer	ntration, D=Deple	etion, RM=	Reduced Matrix, M	S=Masked	d Sand Gra	ins.	Location: PL	_=Pore Lining, M=Matrix.
	ators:						Indica	tors for Problematic Hydric Solis
Histosol (A1)			Dark Surface	e (S7)			2	cm Muck (A10) <b>(MLRA 147)</b>
HISTIC Epiped	on (A2)		Polyvalue Be	elow Surra	ice (58) (IVI	LRA 14/	, 148) <u> </u>	
Black Histic (	43) Ifida (A4)			unace (59	) (IVILKA 14 (E2)	47, 148)	Di	(MILRA 147, 148)
_ Hydrogen Su Stratified Lav			Loaniy Gley	eu mainx (	(ГZ)		FI	
2 cm Muck (A	(10) <b>(I RR N)</b>		<u>A</u> Depleted Wa	Surface (F	-6)			(WERA 130, 147)
Depleted Bel	ow Dark Surface	(A11)	Depleted Da	ounace (i irk Surface	e (F7)		0	ther (Explain in Remarks)
Thick Dark S	urface (A12)	(,)	Redox Depr	essions (F	8)			
Sandy Mucky	Mineral (S1) (LI	RR N.	Iron-Mangar	nese Mass	es (F12) <b>(L</b>	.RR N.		
MLRA 147	, 148)	,	MLRA 13	36)		,		
Sandy Gleye	d Matrix (S4)		Umbric Surfa	, ace (F13)	(MLRA 136	6, 122)	<sup>3</sup> Indi	cators of hydrophytic vegetation and
_ Sandy Redox	(S5)		Piedmont Fl	oodplain S	Soils (F19) <b>(</b>	MLRA 1	<b>48)</b> wet	tland hydrology must be present,
_ Stripped Mati	ix (S6)		Red Parent	Material (F	21) (MLRA	A 127, 14	7) unl	ess disturbed or problematic.
strictive Laye	(if observed):							
Type:								
Depth (inches)	:						Hydric Soil	Present? Yes <sup>X</sup> No

Wetland WP-17



NE



W

Wetland WP-17



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sar	npling Date: <u>05/22/24</u>
Applicant/Owner: FirstEnergy		_ State: OH S	Campling Point: Wetland WP-18
Investigator(s): MJA	Section, Township, Range: S2	2 T13N R5W	
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, nor	ne): Flat	Slope (%): <u>3-5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.51680	Long: <u>-81.0</u>	04729	Datum: NAD 83
Soil Map Unit Name: WmC: Westmoreland-Coshocton silt loams, 8	to 15 percent slopes	NWI classification	.: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No	(If no, explain in Rema	rks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "Normal	Circumstances" prese	nt? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, e	explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locatio	ons, transects, im	portant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:			
Hillside seep. No RPW connection. Forr	mer ID: W-BCR-5/23/2018-3.		

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X       Surface Water (A1)       True Aquatic Plants (B14)         X       High Water Table (A2)       Hydrogen Sulfide Odor (C1)         X       Saturation (A3)       X       Oxidized Rhizospheres on Living I         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Sci	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> </ul>
<ul> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	
Surface Water Present?       YesXNo Depth (inches):         Water Table Present?       YesXNo Depth (inches):         Saturation Present?       YesXNo Depth (inches):         (includes capillary fringe)          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec         Remarks:	Wetland Hydrology Present? Yes X No tions), if available:

Sampling Point: Wetland WP-18

	Absolute	Dominant I	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				
2	·			Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				
7				Prevalence Index worksheet:
		= Total Cove	۶r	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species <u>85</u> x 1 = <u>85.0</u>
Sopling/Shrub Stratum (Plot size: 15				FACW species $65 \times 2 = 130.0$
				FAC species 15 x 3 = 45.0
1				$\frac{1}{1} = \frac{1}{1} = \frac{1}$
2				$\begin{array}{c} \text{FACU species} \\ \hline \\ 0 \\ \hline \hline 0 \\ \hline \\ 0 \\ \hline \\ 0 \\ \hline \hline \\ 0 \\ \hline 0 \\ \hline 0 \\ \hline \hline \\ 0 \\ \hline 0 \\ \hline \hline \\ 0 \\ \hline 0$
3				UPL species $0$ $x 5 = 0.0$
4.				Column Totals: <u>165</u> (A) <u>260.0</u> (B)
5				Provolonce Index - R/A = 1.60
6			. <u></u>	Hydrophytic Vegetation Indicators:
7				Yes 1 Popid Tost for Ludronbutio Vesstation
8.				
0				Yes 2 - Dominance Test is >50%
		Tatal Cause		Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>
E0% of total cover	20% of	total cover:	÷1	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover.	20 % 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u> <u> </u>)</u>	20			No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Carex lurida	30		OBL	
2. Glyceria striata	55		OBL	<sup>1</sup> Indiantara of hydria and yetland hydrology myst
3. Juncus effusus	30		FACW	he present unless disturbed or problematic
4. Dichanthelium clandestinum	15		FAC	Definitions of Four Verstetion Strate:
5 Onoclea sensibilis	20		FACW	Demnitions of Four vegetation Strata.
c Impatiens capensis	15		FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	165	- Total Cove		of size, and woody plants less than 3.28 ft tall
50% of total cover: 83	20% of	total cover	33	
Weady Vine Stratum (Plat size: 30	2070 01	10101 00 001.		Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Undrank tin
5.				Vegetation
		- Total Cove	۰r	Present? Yes X No
50% of total cover:	20% of	total cover:		
Pomorko: (Includo photo numboro horo or on o concreto		10101 00101.		
Remarks. (include proto numbers here of on a separate	sneet.)			

L

Profile Desc	ription: (Describe te	o the dept	h needed to docum	ent the	indicator o	or confirm	m the absence of indicators.)	
Depth	Matrix		Redox	Feature	S1			
(inches)	Color (moist)	<u>    %                                </u>	Color (moist)		Type'		Texture Remarks	
0 - 5	10YR 4/2	95	7.5YR 4/6	5	Concen	M,PL	Silty clay loam	
5 - 16	10YR 4/2	55	7.5YR 5/4	45	Concen	М	Clay loam	
-								
-								
		·					· ·	—
-								
-								
-								
-								
-								
			Deduced Metric MC	Maalaa			<sup>2</sup> Lesstien, DL Deve Links M. Metric	—
Hydric Soil I	ncentration, D=Depie	etion, Rivi=i	Reduced Matrix, MS	=IVIasked	a Sand Gra	ins.	Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ice (S8) <b>(M</b> I	LRA 147	7, 148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Sur	face (S9	) (MLRA 14	47, 148)	(MLRA 147, 148)	
Hydroger	n Sulfide (A4)		Loamy Gleyed	d Matrix (	(F2)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		X Depleted Mat	rix (F3)			(MLRA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>	( )	Redox Dark S	urface (F	F6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dark	C Surrace	e (F7)		Other (Explain in Remarks)	
Sandy M	ucky Mineral (S1) (I		Iron-Mangane	se Mass	es (F12) <b>(I</b>	RR N		
<u> </u>	. 147, 148)	,	MLRA 136	) )		,		
Sandy G	leyed Matrix (S4)		Umbric Surfac	, ce (F13)	(MLRA 136	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Floo	odplain S	oils (F19) <b>(</b>	MLRA 14	<b>48)</b> wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	aterial (F	21) <b>(MLRA</b>	A 127, 14	7) unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	hes):						Hydric Soil Present? Yes X No	_
Remarks:								

Wetland WP-18







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W



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-17,18
Investigator(s):	Section, Township, Range: S22 T13N R5W	
Landform (hillslope, terrace, etc.): Hillside	_ Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>5-15</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.51720	Long: <u>-81.04733</u>	Datum: NAD 83
Soil Map Unit Name: WmC: Westmoreland-Coshocton silt loams,	8 to 15 percent slopes NWI class	sification: N/A
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology natural	ly problematic? (If needed, explain any ans	swers in Remarks.)
	ving compling point locations, transp	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes YesX	No <u>X</u> No <u>X</u> No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland data point in routinely maintained	d powerline RO	W.			

Wettahu Hyurology maleators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	
Saturation Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes X No
(Includes capillary fringe)	
(includes capillary tringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:

Sampling Point: Upland WP-17,18

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1	. <u></u>			That Are OBL, FACW, or FAC: (A)
2.				
3	·			I otal Number of Dominant Species Across All Strata: 5 (B)
4	·			
	·			Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC: (A/B)
6	·			Prevalence Index worksheet
7	·			Total % Cover of: Multiply by:
		= Total Cov	er	
50% of total cover:	20% of	total cover:		$\begin{array}{c} \text{OBL species} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \\ \hline \\ \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \hline \\ \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \\ \\$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $70$ x 2 = $140.0$
1. Rubus allegheniensis	50		FACU	FAC species $x 3 = 30.0$
2. Rosa multiflora	20		FACU	FACU species <u>130</u> x 4 = <u>520.0</u>
3				UPL species x 5 =0.0
0	·			Column Totals: 210 (A) 690.0 (B)
4	·			
5	·			Prevalence Index = $B/A = \frac{3.30}{1000}$
6	·			Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No. 2 - Dominance Test is >50%
9.				$\frac{10}{10}$ 2 - Dominance rest is $>00\%$
	70	= Total Cov	er	$\frac{100}{3}$ 3 - Prevalence index is $\leq 3.0$
50% of total cover: 35	20% of	total cover:	35	№ 4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
Vernonia angustifolia	10		FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Toxicodondron rodicono	10			
2. Dividendi on radicans				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Phalaris arundinacea	15		FACW	be present, unless disturbed or problematic.
4. Solidago canadensis	30		FACU	Definitions of Four Vegetation Strata:
5. Agrimonia parviflora	40		FACW	
<sub>6.</sub> Juncus effusus	15		FACW	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Anthoxanthum odoratum	20		FACU	more in diameter at breast height (DBH), regardless of height
8	·			noight
0				Sapling/Shrub – Woody plants, excluding vines, less
9	·			than 3 in. DBH and greater than or equal to 3.28 ft (1
10	·			11 <i>)</i> tali.
11				Herb – All herbaceous (non-woody) plants, regardless
	140	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>70</u>	20% of	total cover:	28	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1	·			
2.				
3	·			
а Л	·			
	·			Hydrophytic
o	·			Vegetation Present? Ves No X
		= Total Cov	er	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

epth	Matrix		Redo	ox Features						
nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0 - 16	10YR 4/3	98	7.5YR 4/6	2	Concen	M,PL	Clay loam			
-										
		·								
		·								
		·			<u> </u>					
-										
-										
		·					. <u> </u>			
-										
ype: C=Cond	centration, D=Deple	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=P	ore Linin	g, M=Matrix	-
dric Soil Ind	licators:						Indicators	s for Pro	blematic H	ydric Soils <sup>3</sup>
_ Histosol (A	.1)		Dark Surfac	e (S7)			2 cm	Muck (A	10) <b>(MLRA</b> <sup>-</sup>	147)
Histic Epip	edon (A2)		Polyvalue B	elow Surfac	e (S8) <b>(M</b>	LRA 147	, <b>148)</b> Coasi	Prairie	Redox (A16)	)
Black Histi	c (A3)		Thin Dark S	urface (S9)	(MLRA 14	47, 148)	(M)	LRA 147	, 148)	
_ Hydrogen S	Sulfide (A4)		Loamy Gley	ed Matrix (F	-2)		Piedn		odplain Soils	s (F19)
_ Stratified L			Depleted Ma	atrix (F3)	C)		(IMI)	LKA 136	, 147) Dark Surfaa	a (TE10)
2 CITI IVIUCK	(ATU) <b>(LKK N)</b> Relow Dark Surface	(Δ11)	Redux Dark	Sunace (Fi	0) (E7)		Very	Shallow (Evolair	Jark Suriac	e (IFIZ)
Thick Dark	Surface (A12)	(,,,,)	Bedax Dear	essions (F8	(17)			(Lypian		5)
Sandy Muc	ky Mineral (S1) <b>(I</b> )		Iron-Mangar	nese Masse	'' s (F12) <b>(I</b>	RR N				
MLRA 1	47. 148)	,	MLRA 13	36)	,o (i i i i i i i i i i i i i i i i i i i	,				
Sandy Glev	ved Matrix (S4)		Umbric Surf	ace (F13) <b>(I</b>	MLRA 136	5. 122)	<sup>3</sup> Indicato	ors of hvo	drophytic ve	detation and
Sandy Red	lox (S5)		Piedmont FI	oodplain Sc	oils (F19) <b>(</b>	MLRA 14	48) wetland	d hydrolo	bay must be	present.
Stripped M	atrix (S6)		Red Parent	Material (F2	21) (MLRA	127, 14	7) unless	disturbe	d or problem	natic.
estrictive Lay	yer (if observed):				, .					
Туре:										
Donth (inche	es):						Hydric Soil Pre	sent?	Yes	X
Deptil (Inche							1 -			

Upland WP-17,18





Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	_ Sampling Date: 05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-19
Investigator(s): MJA	Section, Township, Range: S21 T13N R5W	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): Concave	Slope (%): <u>0-2</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.51498	Long: <u>-81.04744</u>	Datum: NAD 83
Soil Map Unit Name: WmC: Westmoreland-Coshocton silt loams, 8	to 15 percent slopes NWI classif	fication: N/A
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS Attach site man showi	na compling point locations, transport	a important factures ato

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					
Newly delineated wetland fringe around	pond.				

	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
X       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Inundation Visible on Aer         Water-Stained Leaves (E       Aquatic Fauna (B13)		<ul> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes X No	Depth (inches):1	
Water Table Present?	Yes X No	Depth (inches):0	
		•	X
Saturation Present? (includes capillary fringe)	Yes X No	Depth (inches):0	Wetland Hydrology Present? Yes <u>A</u> No
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes X No	Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present?       Yes       X       No         tions), if available:
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes X No	Depth (inches):0	Wetland Hydrology Present? Yes <u>X</u> No tions), if available:

Sampling Point: Wetland WP-19

22	Absolute Dominant I	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover Species?	Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3.			Species Across All Strata: 2 (B)
4			(=)
5			Percent of Dominant Species
3			That Are OBL, FACW, or FAC:(A/B)
6			Prevalence Index worksheet:
7	·		Total % Cover of: Multiply by:
	= Total Cove	er	$\frac{1}{10000000000000000000000000000000000$
50% of total cover:	20% of total cover:		$OBL species \underline{\qquad } 75 \underline{\qquad } 150.0 \underline{\qquad } 1$
Sapling/Shrub Stratum (Plot size: 15 )			FACW species $73$ x 2 = $130.0$
1			FAC species $0   x 3 = 0.0$
2.			FACU species x 4 =0.0
3			UPL species x 5 =0.0
4			Column Totals: 140 (A) 215.0 (B)
4			
5			Prevalence Index = $B/A = 1.50$
o	<u> </u>		Hydrophytic Vegetation Indicators:
7			Yes 1 - Rapid Test for Hydrophytic Vegetation
8			Yes 2 - Dominance Test is >50%
9			$\frac{1}{Yes} = 2  \text{Browalance Index is } <2 \text{ 0}^1$
	= Total Cove	er	$\sim$ 3 - Flevalence index is $\leq$ 3.0
50% of total cover:	20% of total cover:		4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )			data in Remarks or on a separate sheet)
1 Phalaris arundinacea	60	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
o Impatiens capensis	15	FACW	
2. <u>Englisher of the second second</u>			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
4. Glyceria striata	40	OBL	Definitions of Four Vegetation Strata:
5	·		
6	<u> </u>		Iree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast beight (DBH) regardless of
7.			height.
8			
0			<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
3			man 3 m. DBH and greater than of equal to 3.26 m (1
10		<u> </u>	
11		<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
70	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>70</u>	20% of total cover:	28	<b>Woody vine</b> – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )			height.
1			
2			
3			
а Л			
	·	<u> </u>	Hydrophytic
o			Vegetation Present? Ves X No
	= Total Cove	er	
50% of total cover:	20% of total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)		

Profile Desc	ription: (Describe te	o the depth	needed to docum	ent the i	ndicator o	or confirm	n the absence	of indicators.)
Depth	Matrix		Redox	Feature	S ,	0		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/2	95	5YR 4/6	5	Concen	PL,M	Silty loam	Slightly sandy
-								
-								
·					<u> </u>			
-								
-								
-								
					. <u> </u>	······		
-								
-								
_								
17				Maalaad		·	21	Dens Listen M. Metric
Hydric Soil I	ncentration, D=Depie	etion, RIVI=R	educed Matrix, MS	=IVIasked	Sand Gra	ins.	Location: PL	_=Pore Lining, M=Matrix.
Histopol	(A1)		Dork Surface	(87)			2	om Muck (A10) (ML DA 147)
Listic Er	(AT)			(J) ow Surfa	oo (S9) (M	I D A 147	148) 2	chi Muck (ATO) (MLKA 147)
Black Hi	stic ( $\Delta$ 3)		Thin Dark Sur	face (SQ)		LIXA 147, 47 148)	, <b>140</b> ) <u> </u>	(MI R A 147 148)
<u> </u>	n Sulfide (A4)		Loamy Glever	d Matrix (	F2)	+1, 140)	Pi	iedmont Floodplain Soils (F19)
<u>Stratified</u>	Lavers (A5)		X Depleted Mat	rix (F3)	/			(MLRA 136. 147)
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		Ve	ery Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dark Surface (F7)				0	ther (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depressions (F8)					
Sandy M	lucky Mineral (S1) <b>(L</b> l	RR N,	Iron-Mangane	ese Mass	es (F12) <b>(L</b>	.RR N,		
MLRA	<b>147, 148)</b>		MLRA 136	5)				
Sandy G	leyed Matrix (S4)		Umbric Surface	ce (F13) <b>(</b>	MLRA 136	6, 122)	<sup>3</sup> Indi	cators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Floor	odplain S	oils (F19) <b>(</b>	MLRA 14	<b>48)</b> we	tland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLR</b> A	A 127, 14	<b>7)</b> unl	ess disturbed or problematic.
Restrictive L	.ayer (if observed):							
Туре:			_					
Depth (inc	ches):						Hydric Soil	Present? Yes X No
Remarks:							·	

Wetland WP-19



N E



W

Wetland WP-19



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-19
Investigator(s):	Section, Township, Range: S21 T13N R5W	
Landform (hillslope, terrace, etc.): Shoulder slope	Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>5-8</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.51493	Long: -81.04739	Datum: NAD 83
Soil Map Unit Name: WmC: Westmoreland-Coshocton silt loams,	8 to 15 percent slopes NWI class	ification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	wers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	x
Remarks:							
Upland point in routinely maintained RO	W.						

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wetland Hydrology indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1)True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
<ul> <li>Angen Mater Value (EP)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) bils (C6) 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):				
V				
Water Table Present? Yes No X Depth (inches):	X			
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       No _X Depth (inches):	Wetland Hydrology Present? Yes NoX			
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Ves       No       X       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes NoX			

# Sampling Point: Upland WP-19

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: $0$ (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Parcent of Dominant Species
5				That Are OBL FACW or FAC: 0% (A/B)
6				
7				Prevalence Index worksheet:
/				Total % Cover of: Multiply by:
		= Iotal Cove	er	OBL species 0 x 1 - 0.0
50% of total cover:	20% of	total cover:		
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $10 \times 2 = 00.0$
1				FAC species $30 \times 3 = 90.0$
2.				FACU species $x = 560.0$
3				UPL species $0 \times 5 = 0.0$
3				Column Totals: 185 (A) 680.0 (B)
4				
5				Prevalence index = $B/A = 3.70$
6				
7.				Hydrophytic vegetation indicators:
0				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is $\leq 3.0^1$
		= Total Cove	ər	No. 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: <sup>5</sup> )				data in Remarks or on a separate sheet)
Anthoxanthum odoratum	35	Yes	FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
- Poa pratensis	65	Voc	FACU	
2. Tod praterios			<u> </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Dichanthelium clandestinum	30	NO	FAC	be present, unless disturbed or problematic.
4. Phalaris arundinacea	15	No	FACW	Definitions of Four Vegetation Strata
5. Rubus allegheniensis	10	No	FACU	Deminions of Four Vegetation of ata.
e Dennstaedtia punctilobula	15	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
- Trifolium ropons	15	No	EACU	more in diameter at breast height (DBH), regardless of
7		110	1700	height.
8				Sanling/Shruh - Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
· · · ·	185			Herb – All herbaceous (non-woody) plants, regardless
500/ // / 02		= Total Cove	er 27	of size, and woody plants less than 3.28 it tall.
50% of total cover: 95	20% of	total cover:	31	<b>Woody vine</b> – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2.				
3				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove	er	Present? Yes <u>No ^</u>
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			1
······································				

Profile Desc	ription: (Describe t	o the depth	n needed to docun	nent the in	dicator of	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Features	1	2		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture Remarks	
0 - 16	10YR 3/4	100					Clay loam	
-								
							·	—
-								
-								
-								
				·				—
				·				
-								
-								
-								
				Maakad	Cond Cr		<sup>2</sup> acction: DL Data Lining M Matrix	—
	ndicators:		Reduced Matrix, Ma	S=IVIASKeu	Sand Gra	ains.	Indicators for Problematic Hydric Soils <sup>3</sup>	
Histosol	(A1)		Dark Surface	(97)			2 cm Muck (A10) (MI DA 147)	
Histic Er	(AT) hinedon (A2)			(07) Iow Surfac	a (S8) (N		148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MI RA 1	47. 148)	(MI RA 147, 148)	
Hvdroge	n Sulfide (A4)		Loamy Gleve	d Matrix (F	2)	,,	Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)	,		(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark \$	Surface (F6	5)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	)			
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(</b>	LRR N,		
MLRA	<b>147, 148)</b>		MLRA 13	6)				
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	<b>48)</b> wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent N	laterial (F2	21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.	
Restrictive I	.ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil Present? Yes NoX	_
Remarks:								

Upland WP-19





Project/Site: Washington-Polo Road - Phase 2	_ City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	Sta	te: OH Sampling Point: Wetland WP-20
Investigator(s): JBL	_ Section, Township, Range: S21 T13	N R5W
Landform (hillslope, terrace, etc.): Hillside	.ocal relief (concave, convex, none): _	Concave Slope (%): <u>8</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.50295	Long: -81.04895	, Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s6128	3)	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No (If no,	explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circu	Imstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explai	າ any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ig sampling point locations,	transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	X X X	No No No	Is the Sampled Area within a Wetland?	Yes X	No		
Remarks:								
Hillside seep wetland on potential access road. French rain observed downgradient of wetland								

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
X High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
X Saturation (A3) Oxidized Rhizospheres on Living I	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes X No Depth (inches): 7	
Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	
multiple primary and secondary hydrology indicators present. Sample point meets all thr	ee wetland criteria.

Sampling Point: Wetland WP-20

	Absolute Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u> <u>Species?</u>	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)		
2 3			Total Number of Dominant Species Across All Strata: <u>3</u> (B)		
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)		
6					
7			Prevalence Index worksheet:		
	= Total Cov	er	Total % Cover of: Multiply by:		
50% of total cover:	20% of total cover		OBL species $45$ $x = 45.0$		
Sapling/Shrub Stratum (Plot size: 15 )			FACW species $60$ x 2 = 120.0		
1. Salix interior	5	FACW	FAC species x 3 =0.0		
2			FACU species5 x 4 =20.0		
3			UPL species x 5 =0.0		
4			Column Totals: 110 (A) 185.0 (B)		
4 5			Prevalence Index = $B/A = \frac{1.70}{1.70}$		
6			Hydrophytic Vegetation Indicators:		
7			Yes 1 - Rapid Test for Hydrophytic Vegetation		
8			Yes 2 - Dominance Test is >50%		
9			$\frac{1}{2} = 2 = \text{Dominance results} > 30\%$		
	5 = Total Cov	er	$\sim$ 3 - Flevalence index is $\leq$ 3.0		
50% of total cover: <u>3</u>	20% of total cover	3	4 - Morphological Adaptations (Provide supporting		
Herb Stratum (Plot size: 5)			data in Remarks or on a separate sneet)		
1. Typha latifolia	30	OBL	Problematic Hydrophytic Vegetation' (Explain)		
2. Juncus effusus	20	FACW			
3 Solidago gigantea	30	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
Lupatorium perfoliatum	5	FACW	be present, unless disturbed or problematic.		
5 Carex hystericina	10	OBL	Definitions of Four Vegetation Strata:		
c Carex vulpinoidea	5	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or		
- Disacus fullonum		FACU	more in diameter at breast height (DBH), regardless of		
		17.00	height.		
8			Sapling/Shrub – Woody plants, excluding vines, less		
9			than 3 in. DBH and greater than or equal to 3.28 ft (1		
10			m) tall.		
11			Herb - All herbaceous (non-woody) plants, regardless		
50	105 = Total Cov	er	of size, and woody plants less than 3.28 ft tall.		
50% of total cover: <u>53</u> <u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	20% of total cover		Woody vine – All woody vines greater than 3.28 ft in height.		
1					
2	- <u> </u>				
3					
4			Hydrophytic		
5.			Vegetation		
	= Total Cov	er	Present? Yes X No		
50% of total cover:	20% of total cover				
Remarks: (Include photo numbers here or on a separate	sheet.)				
hydrophytic vegetation indicators present as dominance te	est >50% and PI less that	an 3			

# SOIL

Profile Desc	ription: (Describe to	the depth	needed to docum	ent the i	ndicator o	or confirm	n the absence of indicators.)		
Depth	Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture Remarks		
0 - 6	10YR 4/2	90	5YR 4/6	10	Concen	PL	Silty clay		
6 - 14	Gley 1 4/N	80	7.5YR 5/6	20	Concen	М	Clay Clay and shale		
-									
							· · · · · · · · / · / · / · / · / · _ / / / · _ / / / /		
-									
-									
-									
-									
-									
<sup>1</sup> Type: C=Co	ncentration. D=Deple	etion. RM=F	Reduced Matrix. MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
Hydric Soil I	ndicators:		,				Indicators for Problematic Hydric S	Soils <sup>3</sup> :	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)		
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b>	LRA 147	, 148) Coast Prairie Redox (A16)		
Black His	stic (A3)		Thin Dark Sur	face (S9)	) (MLRA 14	47, 148)	(MLRA 147, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleyed	d Matrix (	F2)		Piedmont Floodplain Soils (F19)		
Stratified	Layers (A5)	X Depleted Matrix (F3)				(MLRA 136, 147)			
2 cm Mu	_ 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6)				Very Shallow Dark Surface (TF1)	2)			
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)					Other (Explain in Remarks)				
Thick Da	rk Surface (A12)		Redox Depres	ssions (F	8) aa (F12) <b>(I</b>				
	147 148)	KK N,	MIPA 136		es (F12) <b>(L</b>	.KK N,			
Sandy G	leved Matrix (S4)		Umbric Surfac	7 (F13)		\$ 122)	<sup>3</sup> Indicators of hydrophytic vegetatio	n and	
Sandy B	edox (S5)		Piedmont Floo	odplain S	oils (F19) (	MLRA 14	48) wetland hydrology must be preser	nt.	
Stripped	Matrix (S6)		Red Parent M	aterial (F	21) <b>(MLRA</b>	A 127, 14	7) unless disturbed or problematic.	,	
Restrictive L	ayer (if observed):				/ (	,			
Type: Sha	ale or gravel								
Depth (inc	thes): 14.0						Hydric Soil Present? Yes X No		
Remarks:							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
itemarka.									
Wetland WP-20



Soil







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Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:
Applicant/Owner: FirstEnergy	State: _	OH Sampling Point: Upland WP-20
Investigator(s):	Section, Township, Range: S21 T13N F	25W
Landform (hillslope, terrace, etc.): Hillside	_ Local relief (concave, convex, none): <u>Conv</u>	Vex Slope (%): <u>8</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.50292	Long: <u>-81.04889</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (se	128) NW	classification: N/A
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, exp	olain in Remarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? Are "Normal Circums	ances" present? Yes X No
Are Vegetation, Soil, or Hydrology natura	Ily problematic? (If needed, explain an	y answers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	x
Remarks:							
Upland near hillside seep on access road	d						

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Wetland Hydrology Indicate	ors:	Secondary Indicators (minimum of two required)	
Primary Indicators (minimum	of one is required;	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2)		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
<ul> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aei</li> <li>Water-Stained Leaves (E</li> <li>Aquatic Fauna (B13)</li> </ul>	rial Imagery (B7) 39)	<ul> <li>Oxidized Rhizospheres on Living</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) bils (C6) 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?	Yes No Yes No	X Depth (inches): X Depth (inches):	
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monitor	ring well, aerial photos, previous inspec	tions), if available:
Remarks: None observed			

Sampling Point: Upland WP-20

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				
2				Total Number of Dominant
				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0% (A/B)
6.				
7				Prevalence Index worksheet:
		Tatal Cause		Total % Cover of: Multiply by:
	=	I otal Cove	ſ	OBL species $0 \times 1 = 0.0$
	20% of 1	total cover:		$\frac{15}{15} \times 2 = \frac{30.0}{30.0}$
Sapling/Shrub Stratum (Plot size: 15 )				$\begin{array}{c} FACW \text{ species} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ x 2 = \\ \hline \end{array} \\ \hline \end{array} \\ 0 \\ 0 \\ \hline \end{array}$
1				FAC species $0 \times 3 = 0.0$
2.				FACU species <u>105</u> x 4 = <u>420.0</u>
2				UPL species $0 \times 5 = 0.0$
				Column Totals: $120$ (A) $450.0$ (B)
4				
5	<u> </u>			Prevalence Index = B/A = <u>3.80</u>
6	<u> </u>			Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				
9				2 - Dominance Test is >50%
				<u>No</u> 3 - Prevalence Index is $\leq 3.0^{1}$
	=	I otal Cove	r	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% of 1	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No. Drablematic Hydrophytic Magaztation <sup>1</sup> (Evaluin)
1. Solidago canadensis	40		FACU	
2. Phleum pratense	35		FACU	
2 Erigeron annuus	10		FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
5	10		FACW	be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
5. Carex annectens	5		FACW	
6. Anthoxanthum odoratum	15		FACU	Iree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Taraxacum officinale	5		FACU	height
9				
o				Sapling/Shrub – Woody plants, excluding vines, less
9		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	120 _	Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60	20% of t	total cover: 2	24	
(Plat size 30)	20/0 011			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 00 )				height.
1				
2				
3.				
4				
				Hydrophytic
o				Present? Ves No X
	=	Total Cove	r	
50% of total cover:	20% of t	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			
hydrophytic vegetation indicators not present				

Profile Desc	ription: (Describe to	the depth ne	eded to docum	ent the i	ndicator o	r confirm	n the absend	ce of indicato	ors.)	
Depth	Matrix		Redox	Features	3					
(inches)	Color (moist)	<u>%</u> C	color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0 - 8	10YR 4/3	97	10YR 4/6	3	Concen	М	Sandy loan	n		
-										
-										
-										
-										
-										
					·					
-										
<sup>1</sup> Type: C=Co	ncentration, D=Deple	tion, RM=Red	uced Matrix, MS:	=Masked	Sand Gra	ins.	<sup>2</sup> Location:	PL=Pore Lini	ng, M=Matrix	
Hydric Soil I	ndicators:	•					Indi	icators for Pr	oblematic H	ydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (/	A10) <b>(MLRA</b>	147)
Histic Ep	ipedon (A2)		Polyvalue Belo	ow Surfac	ce (S8) <b>(M</b>	LRA 147,	148)	Coast Prairie	Redox (A16	)
Black His	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 14	47, 148) <sup>`</sup>	<i>,</i> <u> </u>	(MLRA 14	7, 148)	
Hydrogei	n Sulfide (A4)		Loamy Gleyed	Matrix (F	-2)			Piedmont Flo	odplain Soils	s (F19)
Stratified	Layers (A5)		_ Depleted Matr	ix (F3)			(MLRA 136, 147)			
2 cm Mu	ck (A10) <b>(LRR N)</b>		_ Redox Dark S	urface (F	6)			Very Shallow	Dark Surfac	e (TF12)
Depleted	Below Dark Surface	(A11)	_ Depleted Dark	Surface	(F7)			Other (Expla	in in Remarks	6)
Thick Da	rk Surface (A12)	_	_ Redox Depres	sions (F8	3)					
Sandy M	ucky Mineral (S1) (LF	RR N,	_ Iron-Mangane	se Masse	es (F12) <b>(L</b>	RR N,				
MLRA	147, 148)		MLRA 136	)						
Sandy G	leyed Matrix (S4)		_ Umbric Surfac	e (F13) <b>(</b> I	MLRA 136	5, <b>122)</b>	<sup>3</sup> lı	ndicators of h	ydrophytic ve	getation and
Sandy R	edox (S5)		Piedmont Floc	odplain So	oils (F19) <b>(</b>	MLRA 14	<b>18)</b> \	wetland hydro	logy must be	present,
Stripped	Matrix (S6)		_ Red Parent Ma	aterial (F2	21) <b>(MLRA</b>	127, 147	<b>7)</b> เ	unless disturb	ed or problen	natic.
Restrictive L	ayer (if observed):									
Type: Gra	avel/rock									
Depth (inc	hes): <u>8.0</u>						Hydric So	oil Present?	Yes	X
Remarks:							1			

Upland WP-20









Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	S	ampling Date: 05/22/24
Applicant/Owner: FirstEnergy		_ State: OH	Sampling Point: Wetland WP-21
Investigator(s):	Section, Township, Range: S2	1 T13N R5W	
Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, convex, no	ne): <u>Concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.50228	Long:81.	04805	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s61	28)	NWI classificati	on:
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes X No	(If no, explain in Ren	narks.)
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Normal	Circumstances" pre	sent? Yes X No
Are Vegetation, Soil, or Hydrology naturally	v problematic? (If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point location	ons, transects, i	mportant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	<pre>K No K No</pre>	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					
PEM adjacent to perennial Long Creek	and epheme	eral stream to the south.			

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>s (C3) Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> </ul>
<ul> <li>Nation matrix (etr.)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes _X No Depth (inches):1         Saturation Present?       Yes _X No Depth (inches):15         (includes capillary fringe)       Wet	tland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)	), if available:
Remarks: multiple primary and secondary hydrology indicators present. Wetland drains to perennial Lor	ng Creek, located adjacent to the wetland

Sampling Point: Wetland WP-21

20	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2 3				Total Number of Dominant Species Across All Strata:1 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
6				
7				Prevalence Index worksheet:
		= Total Cove	r	I otal % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species $13$ $x_1 = 13.0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $90$ $x 2 = 180.0$
1				FAC species $0$ $x 3 = 0.0$
2				FACU species $0   x 4 = 0.0$
3	<u> </u>			UPL species $0 \times 5 = 0.0$
4				Column Totals: <u>105</u> (A) <u>195.0</u> (B)
5				Prevalence Index = $B/A = 1.90$
0				Hydrophytic Vegetation Indicators:
/				1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>
500/ - ( total		= Total Cove	r	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20% 01	total cover:		data in Remarks or on a separate sheet)
Phalaris arundinacea	80	Yes	FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Symplocarpus foetidus	5	No		
		No		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	10	No		be present, unless disturbed or problematic.
4. Impatiens capensis			FACW	Definitions of Four Vegetation Strata:
5				<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7			<u> </u>	height.
8			<u> </u>	Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
50	105	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 53	20% of	total cover:	21	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: <u>50</u> )				height.
1			<u> </u>	
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove	r	Present? Yes <u>No</u> No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate hydrophytic vegetation indicators present as dominance te	sheet.) st >50% and	d PI < 3		

# SOIL

Profile Desc	ription: (Describe to	o the dept	h needed to docum	ent the in	ndicator o	or confirm	the absence of	indicators.)	
Depth	Matrix		Redox	Features	6				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0 - 10	10YR 4/1	90	7.5YR 4/4	10	Concen	PL,M	Clay loam		
10 - 18	10YR 5/2	80	7.5YR 4/4	20	Concen	М	Sandy loam		
-									
-									
				·	·				
				·	·				
	,			·					
-									
-									
-									
-									
	ncentration D-Deple	tion RM-	Reduced Matrix MS	–Masked	Sand Gra	ins	<sup>2</sup> Location: PL = F	Pore Lining M-Matrix	
Hydric Soil I	ndicators:				ound ord		Indicator	rs for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Dark Surface	(S7)			2 cm	Muck (A10) <b>(MLRA 147)</b>	
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfac	ce (S8) <b>(M</b>	LRA 147,	148) Coas	st Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 14	47, 148)	(M	ILRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	=2)		Pied	mont Floodplain Soils (F19)	
Stratified	l Layers (A5)		X Depleted Mat	rix (F3)			(M	ILRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	urface (F	6)		Very	Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Darl	< Surface	(F7)		Other (Explain in Remarks)		
Thick Da	rk Surface (A12)	, ,	Redox Depres	ssions (F8	3)				
Sandv M	luckv Mineral (S1) <b>(Ll</b>	RR N.	Iron-Mangane	se Masse	, es (F12) <b>(L</b>	.RR N.			
MLRA	147, 148)	,		5)		,			
Sandy G	leved Matrix (S4)		Umbric Surfac	, ce (F13) <b>(</b> I	MLRA 136	6, 122)	<sup>3</sup> Indicat	ors of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19) <b>(</b>	MLRA 14	8) wetlar	nd hydrology must be present.	
Stripped	Matrix (S6)		Red Parent M	aterial (F2	21) (MLRA	127. 147	7) unless	s disturbed or problematic.	
Restrictive L	ayer (if observed):				/ (	,			
Type:									
Depth (inc	ches):						Hydric Soil Pre	esent? Yes <u>X</u> No	
Remarks:							1		

Wetland WP-21





Wetland WP-21



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State	e: OH Sampling Point: Upland WP-21
Investigator(s):	Section, Township, Range: <u>S21 T13N</u>	I R5W
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none):	at Slope (%):_0
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.50229	Long: -81.04811	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612	28) N	WI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No (If no, e	explain in Remarks.)
Are Vegetation, Soil, or Hydrology significan	ntly disturbed? Are "Normal Circur	nstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locations, t	ransects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	
Remarks:							
Upland on mowed path adjacent to the	west of the wetl	and					

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

HYDROLOGY

Sampling Point: Upland WP-21

	Absolute	Dominant I	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: 0 (A)	
2				Total Nevel as of Developed	
3.				Species Across All Strata: 2 (B)	
4					
T			<u> </u>	Percent of Dominant Species	
5			<u> </u>	That Are OBL, FACW, or FAC: 0% (A/E	3)
6			<u> </u>	Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
		= Total Cove	r		
50% of total cover:	20% of	total cover:			
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $0 x 2 = 0.0$	
1				FAC species $0 \times 3 = 0.0$	
2.				FACU species 85 x 4 = 340.0	
3				UPL species 15 x 5 = 75.0	
3			<u> </u>	Column Totals: 100 (A) 415.0 (B)	)
4			<u> </u>		
5				Prevalence Index = $B/A = 4.20$	
6				Hydrophytic Vegetation Indicators:	
7				No 1 - Rapid Test for Hydrophytic Vegetation	
8				$N_0$ 2 Dominance Test is > 50%	
9				$\frac{1}{1}$ 2 · Dominance rest is >50%	
		= Total Cove	r	$\frac{100}{100}$ 3 - Prevalence index is $\leq 3.0$	
50% of total cover:	20% of	total cover:		4 - Morphological Adaptations' (Provide supportin	ıg
Herb Stratum (Plot size: 5		·····		data in Remarks or on a separate sheet)	
Trifolium pratense	40		FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
- Clochama hadaracaa	15		EACU		
2. Bleetionia nederacea				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
	15			be present, unless disturbed or problematic.	
4. Poa annua	30		FACU	Definitions of Four Vegetation Strata:	
5					
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) c	)r
7.				height.	4
8					
0				Sapling/Shrub – Woody plants, excluding vines, less	
9				than 3 in. DBH and greater than or equal to 3.28 ft (1	
10					
11				Herb - All herbaceous (non-woody) plants, regardless	s
	100	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 50	20% of	total cover:	20	<b>Woody vine</b> – All woody vines greater than 3 28 ft in	
Woody Vine Stratum (Plot size: 30 )				height.	
1					
2.					
3					
4					
T			<u> </u>	Hydrophytic	
5			<u> </u>	Present? Yes No X	
	000/ - (	= Total Cove	er		
	20% of	total cover:			
Remarks: (Include photo numbers here or on a separate	sheet.)				
Mowed vegetation. hydrophytic vegetation indicators not p	resent.				

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	indicator o	or confirm	n the absence of indicators.)	
Depth	Matrix		Redox	Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 6	10YR 4/2	85	5YR 3/4	15	Concen	М	Clay loam	
6 - 12	10YR 4/4	90	10R 2.5/1	10	Concen	PL	Sand	
12 <b>-</b> 16	10YR 4/1	80	10YR 3/6	20	Concen	PL,M	Sandy clay	
-								
-								
-								
-								
-								
-								
-								_
			aduced Metrix MS	Maakaa	d Sand Cra		<sup>2</sup> Location: DL-Doro Lining M-Motrix	—
Hydric Soil I	ndicators:			=IVIASKEC	a Sanu Gia	1115.	Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Dark Surface	(97)			2 cm Muck (A10) (MI PA 117)	
Histic Er	(AT)			(J7) ow Surfa	co (S8) <b>(M</b>	DA 1/17	148) Coast Prairie Redoy (A16)	
Black Hi	stic (A3)		Toiyvalue Del Thin Dark Sur	face (SQ	) (MI PA 1	LINA 147, 17 1/8)	(MI PA 147 148)	
Diack The	n Sulfide $(AA)$			Motriv (	(INIEINA I-	+7, 140)	Diedmont Floodplain Soils (F10)	
Tryuroge			Loaniy Cleyed	riv (E3)	(12)		(MI PA 136 147)	
	ck (A10) (I PP N)		Depleted Mati	urface (F	6)		Very Shallow Dark Surface (TE12)	
2 cm Mu	Below Dark Surface	(Δ11)	Redux Dark C	(Indee (I	0) (F7)		Other (Explain in Remarks)	
Thick Da	rk Surface (A12)		Depicted Dan	countact	2) 2)			
Sandy M	lucky Mineral (S1) (I				o) os (E12) <b>(I</b>			
		NN 1 <b>1</b> ,	MI RA 136	30 Ma33	C3 (I 12) (E			
Sandy G	leved Matrix (S4)		Limbric Surfac	י <b>ו</b> הם (F13) ו	(MI RA 136	\$ 122)	<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Ornblic Odriad	dolain S		ΜIRΔ 14	(18) wetland hydrology must be present	
Stripped	Matrix (S6)		Red Parent M	aterial (F	21) (MI RA	127.147	7) unless disturbed or problematic	
Restrictive I	aver (if observed)					, . 4		
Type Ro	ck							
Depth (inc	ches): <u>16.0</u>						Hydric Soil Present? Yes NoX	_
Remarks:	-							







Soil

Project/Site: Washington-Polo Road - Phase 2	City/County:	Carroll County	Sampling Date: 05/22/24
Applicant/Owner: FirstEnergy		State: O	H Sampling Point:
Investigator(s): JBL	Section, Tow	nship, Range: S20 T13N R5	W
Landform (hillslope, terrace, etc.): Lowland	Local relief (con	cave, convex, none): <u>Conca</u>	ve Slope (%): 2
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.48830		Long: <u>-81.04868</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612	8)	NWI c	lassification: R5UBH
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X	No (If no, expla	in in Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed?	Are "Normal Circumsta	nces" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic?	(If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling	point locations, trans	sects, important features, etc.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         X Saturation (A3)       X Oxidized Rhizospheres on Living I         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Sc         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)	
Field Observations:         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       YesX No Depth (inches):         Saturation Present?       YesX No Depth (inches):         (includes capillary fringe)       YesX No	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks: multiple primary and secondary hydrology indicators present. Wetland adjacent to perer	nnial McGuire Creek.

HYDROLOGY

Sampling Point: Wetland WP-22

	Absolute Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	<u>% Cover</u> Species?	Status	Number of Dominant Species That Are OBL_FACW_or FAC: 2 (A)
2			Total Number of Dominant
3			Species Across All Strata: <u>2</u> (B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
6			Prevalence Index worksheet:
/			Total % Cover of: Multiply by:
E0% of total cover:	= I otal Cove	er	OBL species 55 $x_{1} = 55.0$
Conding (Charthe Structure (Platicizer 15			FACW species $45$ x 2 = 90.0
			EAC species $0 \times 3 = 0.0$
1			EACLI species $0$ $x 4 = 0.0$
2			$\frac{1111}{1111} = \frac{1111}{1111} = \frac{1111}{1111} = \frac{1111}{1111} = \frac{11111}{1111} = \frac{11111}{11111} = \frac{111111}{11111} = \frac{1111111}{1111111} = \frac{11111111}{111111111111111111111111111$
3	·		$\begin{array}{c} \text{Column Totals:} & 100 & (\text{A}) & 145.0 & (\text{B}) \end{array}$
45			
6			Prevalence Index = $B/A = \frac{1.50}{1.50}$
7.			Hydrophytic Vegetation Indicators:
8			1 - Rapid Test for Hydrophytic Vegetation
Q.			Yes 2 - Dominance Test is >50%
	– Total Cove		Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:	20% of total cover:		$\underline{No}$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5			data in Remarks or on a separate sheet)
1. Typha latifolia	50	OBL	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Phalaris arundinacea	40	FACW	
3 Impatiens capensis	5	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Carex lurida	5	OBL	be present, unless disturbed or problematic.
5			Definitions of Four vegetation Strata:
6			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7			more in diameter at breast height (DBH), regardless of height
8			lingit
9			<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10.			m) tall.
11.			
	100 = Total Cove	er.	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>50</u>	20% of total cover:	20	
Woody Vine Stratum (Plot size: 30 )			height.
1			
2			
3	·		
4		<u> </u>	Hydrophytic
5			Vegetation
	= Total Cove	er	Present? res <u>~</u> No
50% of total cover:	20% of total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)		
hydrophytic vegetation indicators present as domincance t	est >50% and PI less that	an 3	

# SOIL

Profile Desc	ription: (Describe t	o the deptl	n needed to docum	nent the i	ndicator o	or confirm	n the absence of indicators.)	
Depth	Matrix		Redox	Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 5	10YR 4/2	98	10YR 3/4	2	Concen	PL,M	Clay loam	
5 - 19	10YR 5/1	90	10YR 3/6	10	Concen	PL,M	Clay loam	
-								
-								
								—
							· · · · · · · · · · · · _ · · _ / _ · _ / _ · _ / _ · _ / _ /	—
		·						—
-				. <u> </u>				_
-								
-								
-								
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=I	Reduced Matrix, MS	=Masked	I Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:	,	,				Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	vipedon (A2)		Polyvalue Be	ow Surfa	ce (S8) <b>(M</b>	LRA 147,	, 148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	) (MLRA 14	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Piedmont Floodplain Soils (F19)	
Stratified	I Layers (A5)		X Depleted Mat	rix (F3)			(MLRA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane	ese Mass	es (F12) <b>(L</b>	.RR N,		
MLRA	<b>147, 148)</b>		MLRA 136	5)				
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	(MLRA 136	5, <b>122)</b>	Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	MLRA 14	<ol> <li>wetland hydrology must be present,</li> </ol>	
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLRA</b>	127, 14	7) unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	ches):						Hydric Soil Present? Yes X No	-
Remarks:								

Wetland WP-22









W

Wetland WP-22



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll	County	_ Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland WP-22
Investigator(s):	Section, Township, F	Range: S20 T13N R5W	
Landform (hillslope, terrace, etc.): Hillside	_ Local relief (concave, co	onvex, none): <u>None</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.48828	۱ ــــــــــــــــــــــــــــــــــــ	ong:81.04857	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (se	128)	NWI classif	ication: R5UBH
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 signific	antly disturbed? Ar	e "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natura	lly problematic? (If	needed, explain any answ	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>X</u> No <u>X</u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland 02 east of wetland					

RIDROLUGI	H,	YC	R	Ο	LO	G	Y
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Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         Saturation (A3)       Oxidized Rhizospheres on Living I         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled So         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)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes <u>No </u> Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	N N
Saturation Present? Yes <u>No X</u> Depth (inches):	Wetland Hydrology Present? Yes No X
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: None observed. Sample point does not meet any of the 3 wetland criteria	ions), if available:

Sampling Point: Upland WP-22

20	Absolute Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u> Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (	(A)
2 3			Total Number of Dominant Species Across All Strata: <u>3</u>	(B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:0% (	(A/B)
6				. ,
7			Prevalence Index worksheet:	
	= Total Cov	er	Iotal % Cover of: Multiply by:	
50% of total cover:	20% of total cover:		OBL species x 1 = 0.0	
Sapling/Shrub Stratum (Plot size: 15 )			FACW species $0$ $x 2 = 0.0$	
1			FAC species $0$ $x 3 = 0.0$	
2			FACU species $115$ $x 4 = 460.0$	
3			UPL species $0 \times 5 = 0.0$	
4			Column Totals:115 (A)460.0	(B)
5			Prevalence Index = $B/A = 4.00$	
o			Hydrophytic Vegetation Indicators:	
/			1 - Rapid Test for Hydrophytic Vegetation	
8			No 2 - Dominance Test is >50%	
9			<u>No</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	= Total Cov	er	No 4 - Morphological Adaptations <sup>1</sup> (Provide suppo	orting
50% of total cover:	20% of total cover:	<u> </u>	data in Remarks or on a separate sheet)	_
Herb Stratum (Plot size: <u>5</u> )	50	EACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	)
				, 
2. Solidago altissima		FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology mu	ist
3. Cirsium arvense		FACU	be present, unless disturbed or problematic.	
4. Rubus argutus	10	FACU	Definitions of Four Vegetation Strata:	
5			The March shall work the state of (7.0 set	
6			more in diameter at breast height (DBH) regardles	n) or
7			height.	
8			Sanling/Shrub Woody planta avaluding vince k	
9			than 3 in. DBH and greater than or equal to 3.28 ft	: (1
10			m) tall.	
11			Herb – All herbaceous (non-woody) plants, regard	less
	115 = Total Cov	er	of size, and woody plants less than 3.28 ft tall.	
50% of total cover: $\frac{58}{30}$ Woody Vine Stratum (Plot size: $\frac{30}{30}$ )	20% of total cover:	23	Woody vine – All woody vines greater than 3.28 ft	t in
1.			noight.	
2.				
3.				
4				
5			Hydrophytic	
···-	– Total Cov		Present? Yes No $\frac{X}{X}$	
50% of total cover:	20% of total cover:			
Remarks: (Include photo numbers here or on a separate	sheet.)			
hydrophytic vegetation indicators not present				

Profile Desc	cription: (Describe	to the depth	needed to docur	ment the indica	tor or confirm	n the absence of i	ndicators.)	
Depth	Matrix		Redo	x Features	4 0			
(inches)	Color (moist)		Color (moist)	<u>% Тур</u>	e' Loc <sup>2</sup>	Texture	Remar	ks
0 - 18	10YR 3/3	100				Silty clay loam		
-								
-								
			<u> </u>	<u> </u>		·		
-								
-								
-								
						·		
-								
-								
-								
17						21		
	oncentration, D=Dep	letion, RIVI=Re	educed Matrix, Ma	S=Masked Sand	Grains.	Location: PL=P	ore Lining, M=Mai	TIX.
Listoool			Dark Surfage	(07)				
	(AI) Dipodon (A2)		Dark Surface	e (37) Now Surface (SS	A 147	148) Coos	t Proirio Podox (A	A 147)
Flistic E	(A2)		Folyvalue Be	urface (SQ) (MI F	20 (MERA 147)	, 140) Coas	I RA 147 148)	10)
<u> </u>	en Sulfide (A4)		Loamy Gleve	ed Matrix (F2)	(A 147, 140)	Piedr	nont Floodolain Sc	oils (F19)
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)		<u> </u>	LRA 136. 147)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6)		Very	Shallow Dark Surf	ace (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface (F7)		Other	r (Explain in Rema	rks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F8)				
Sandy N	/lucky Mineral (S1) <b>(L</b>	.RR N,	Iron-Mangan	ese Masses (F1	2) (LRR N,			
MLR	A 147, 148)		MLRA 13	6)				
Sandy C	Bleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(MLR</b>	A 136, 122)	<sup>3</sup> Indicate	ors of hydrophytic	vegetation and
Sandy F	Redox (S5)		Piedmont Flo	oodplain Soils (F	19) <b>(MLRA 1</b> 4	48) wetlan	d hydrology must	be present,
Stripped	I Matrix (S6)		Red Parent M	Material (F21) (N	ILRA 127, 14	7) unless	disturbed or prob	ematic.
Restrictive	Layer (if observed):							
Туре:			_					X
Depth (in	ahaa).					Hydric Soil Pre	esent? Yes	NoX
	cnes):					-		
Remarks:	cnes).					-		







Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-23
Investigator(s):	Section, Township, Range: S19 T13N R5W	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): Concave	Slope (%): <u>4</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.48203	Long: -81.04898	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612	28) NWI clas	sification: N/A
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes X No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology significat	ntly disturbed? Are "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	v problematic? (If needed, explain any and	swers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locations, transe	cts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					
PEM wetland in swale in ag field. Wetlar	nd extends outs	side survey area to the	ne west.		

HYDROLOGY
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Wetland Hydrology Indicate	rs:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is req	uired; ch	eck all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aer</li> <li>Water-Stained Leaves (B</li> <li>Aquatic Fauna (B13)</li> </ul>	ial Imagery ( 9)		<ul> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	
Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes YesX YesX	No No No	<ul> <li>C Depth (inches):</li> <li>Depth (inches):</li> <li>Depth (inches):</li> </ul>	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, r	nonitorin	g well, aerial photos, previous inspec	tions), if available:
Remarks: mulitple primary and secondar	y hydrology	indicator	s present. Wetland drains downgrad	ent to the west and outside of the survey boundary

Sampling Point: Wetland WP-23

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: $0$ (A)
2				
2				Total Number of Dominant
3	<u></u>		<u> </u>	Species Across All Strata: 0 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0% (A/B)
6.				
7				Prevalence Index worksheet:
/				Total % Cover of: Multiply by:
		= Total Cove	r	OBL species $65 \times 1 - 65.0$
50% of total cover:	20% of	total cover:		
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $43$ $x 2 = 300$
1				FAC species $0 \times 3 = 0.0$
2				FACU species <u>5</u> x 4 = <u>20.0</u>
2				UPL species $0 \times 5 = 0.0$
3				$\begin{array}{c} 115 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 175.0 \\ 100$
4				Column rotals: (A) (B)
5				Provolonce Index = P/A = 1.50
6.				
7				Hydrophytic Vegetation Indicators:
/:				1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				$\frac{1}{Yes}$ 3 - Prevalence Index is <3 0 <sup>1</sup>
		= Total Cove	r	No. 4. Marsheld size! A destations <sup>1</sup> (Dravide ourse artiss
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
Typha latifolia	40		OBI	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Poa palustris	25		FACW	<sup>1</sup> Indicators of hydric soil and wotland hydrology must
3. Carex lurida	25		OBL	be present unless disturbed or problematic
4. Juncus effusus	10		FACW	Definitions of Four Manatolian Otrata
- Persicaria pensylvanica	10		FACW	Definitions of Four vegetation Strata:
- Schodoporus arundinacous	5		EACU	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Schedonorus arundinaceus	<u>J</u>		FACU	more in diameter at breast height (DBH), regardless of
7				height.
8.				
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
40				m) tall
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	115	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>58</u>	20% of	total cover:	23	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
1				
1				
2	<u></u>		<u> </u>	
3				
4				Hydrophytic
5.				Vegetation
	• •	- Total Cava		Present? Yes X No
E0% of total cover:	20% of		1	
	20% 01	total cover.	· · · · ·	
Remarks: (Include photo numbers here or on a separate	sheet.)			
hydrophytic vegetation indicators present as dominance te	st>50% and	PI is less that	an 3	

Profile Desc	ription: (Describe to	o the depth	needed to docum	ent the i	ndicator o	or confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features	s				
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	<u>Texture</u>	Remarks	
0 - 19	10YR 4/1	70	10YR 4/4	30	Concen	PL,M	Clay		
-									
-									
	,					. <u> </u>			
-									
-									
						·			
-									
-									
<sup>1</sup> Type: $C=Cc$	ncentration, D=Deple	etion. RM=R	educed Matrix, MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: Pl	=Pore Lining, M=Matrix,	
Hydric Soil I	ndicators:			maonee			Indica	ators for Problematic Hydric Soil	s <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Belo	ow Surfa	ce (S8) <b>(M</b>	LRA 147,	148) C	oast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 14	47, 148)	·	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleyed	d Matrix (	F2)		Pi	iedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		X Depleted Matr	ix (F3)				(MLRA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark S	urface (F	6)		V	ery Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dark	Surface	(F7)		0	ther (Explain in Remarks)	
Thick Da	rk Surface (A12)		Redox Depres	sions (F	8)				
Sandy M	ucky Mineral (S1) (LI	RR N,	Iron-Mangane	se Mass	es (F12) <b>(L</b>	.RR N,			
MLRA	147, 148)		MLRA 136	)		400	31	tentene af herdene herden en er fallen a	1
Sandy G	eyed Matrix (S4)		Umbric Surfac	e (F13) <b>(</b>		), 122)		icators of hydrophytic vegetation ai	าต
Sandy R	edox (SS) Motrix (SS)		Pleamont Floc	otoriol (E	OIIS (F19) ( 24) (MI D (	WILKA 14	(8) We	tiand hydrology must be present,	
Supped	aver (if observed):			alenai (F		A 1 <i>21</i> , 147	<b>)</b> uni	ess disturbed of problematic.	
Tunoi	ayer (il observeu).								
Type:			—						
Depth (inc	nes):						Hydric Soil	Present? Yes <u>No</u> No	
Remarks:									

Wetland WP-23







W

Wetland WP-23



Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date:_05/22/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-23
Investigator(s):	Section, Township, Range: S19 T13N R5W	
Landform (hillslope, terrace, etc.): Hillside	_ Local relief (concave, convex, none): Flat	Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.48209	Long: <u>-81.04897</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s6	128) NWI class	sification: N/A
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrology signification	antly disturbed? Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturall	ly problematic? (If needed, explain any ans	wers in Remarks.)
CLIMMARY OF FINIDINCS Attack site man show	ving compling point locations, transpo	to important factures ato

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u>x</u>
Remarks:							
upland area adjancent to PEM wetland	swale						

#### HYDROLOGY

Wettand Hydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Surface Water Present?       Yes No _X Depth (inches):         Water Table Present?       Yes No _X Depth (inches):	
Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Saturation Present?       Yes NoX Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective         Remarks:       Remarks:	Wetland Hydrology Present? Yes NoX
Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       no hydrology indicators present	Wetland Hydrology Present? Yes NoX

Sampling Point: Upland WP-23

20	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	<u>% Cover</u> Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC:0 (A)
2.		
3		I otal Number of Dominant
4		
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:0% (A/B)
6		Dravalance in day workshoet
7		Prevalence index worksneet:
	= Total Cover	Total % Cover of:Multiply by:
50% of total cover:	20% of total cover:	OBL species 0 x 1 = 0.0
Sapling/Shrub Stratum (Plot size: 15		FACW species x 2 =0.0
		FAC species $0 \times 3 = 0.0$
		FACU species 100   x 4 - 400.0
2		
3		UPL species $400$ $x = 4000$
4		Column Totals:(A)(A)(B)
5.		
6		Prevalence Index = $B/A = 4.00$
7		Hydrophytic Vegetation Indicators:
[ /		No 1 - Rapid Test for Hydrophytic Vegetation
8		No 2 - Dominance Test is >50%
9		$N_0$ 3 - Prevalence Index is <3.0 <sup>1</sup>
	= Total Cover	No. 4. Membelagical Adaptationa <sup>1</sup> (Dravide supporting
50% of total cover:	20% of total cover:	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: <sup>5</sup> )		data in Remarks or on a separate sheet)
1 Solidado canadensis	50 FACU	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Schedonorus arundinaceus	50 FACU	
		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		
6		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
7		more in diameter at breast height (DBH), regardless of
· · · · · · · · · · · · · · · · · · ·		neight.
8		Sapling/Shrub - Woody plants, excluding vines, less
9		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		m) tall.
11		Herb - All berbaceous (non-woody) plants, regardless
	100 = Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of total cover: 20	· · · · · · · · · · · · · · · · · · ·
Woody Vino Stratum (Plot size: 30	20,000 000000000000000000000000000	Woody vine – All woody vines greater than 3.28 ft in
		height.
1		
2		
3		
4.		Hadaan hada
5.		Vegetation
		Present? Yes No X
50% of total cover:		
Remarks: (Include photo numbers here or on a separate	sneet.)	
hydrophytic vegetation indicators not present		

Profile Desc	ription: (Describe t	o the dept	n needed to docum	ent the i	ndicator o	r confirn	n the absence of inc	licators.)	
Depth	Matrix		Redox Features						
(inches)	Color (moist)		Color (moist)	%	Type	Loc	Texture	Remarks	
0 - 18	10YR 4/3	95	10YR 4/6	5	Concen	M	Sandy clay	with grav	el
-									
-									
		<u> </u>			·				
		<u> </u>							
-									
-									
		<u> </u>			<u> </u>				
-									
-									
<sup>1</sup> Type: C=Co	ncentration. D=Deple	etion. RM=	Reduced Matrix. MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=Por	e Lining, M=Matrix	
Hydric Soil I	ndicators:						Indicators f	for Problematic H	ydric Soils <sup>3</sup> :
<u> </u>	(A1)		Dark Surface	(S7)			2 cm M	uck (A10) <b>(MLRA</b>	147)
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b> I	LRA 147,	, <b>148)</b> Coast F	Prairie Redox (A16)	1
Black His	stic (A3)		Thin Dark Sui	face (S9)	(MLRA 14	47, 148)	(MLF	RA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Piedmo	nt Floodplain Soils	(F19)
Stratified	Layers (A5)		Depleted Mat	rix (F3)			(MLF	RA 136, 147)	( <b></b> )
2 cm Mu	ck (A10) <b>(LRR N)</b>	( )	Redox Dark S	Surface (F	6) (FZ)		Very Sh	nallow Dark Surface	e (IF12)
Depleted	Below Dark Surface	(ATT)	Depleted Dari	k Surrace	(F7)		Other (i	Explain in Remarks	5)
Thick Da	ucky Mineral (S1) <b>(I</b>		Redux Depres	solutio (Fa	) (F12) <b>(I</b>	RRN			
	147. 148)	, , , , , , , , , , , , , , , , , , ,	MLRA 136	30 Mass( 3)	55 (1 12) <b>(</b> E	,			
Sandy G	leved Matrix (S4)		Umbric Surfa	., ce (F13) <b>(</b>	MLRA 136	5, 122)	<sup>3</sup> Indicators	s of hydrophytic ve	getation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	MLRA 14	48) wetland l	hydrology must be	present,
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 14	7) unless di	isturbed or problem	natic.
Restrictive L	ayer (if observed):								
Туре:									
Depth (inc	hes):						Hydric Soil Prese	ent? Yes	X
Remarks:							1		

Upland WP-23





Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	_ Sampling Date: 05/21/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland WP-24
Investigator(s):	Section, Township, Range: S19 T13N R5W	
Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, convex, none): Flat	Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.47500	Long: <u>-81.04928</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612	28) NWI classif	fication: R4SBC
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances"	' present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answ	vers in Remarks.)
	na complian point locations, transport	- important factures ata

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:				
PEM wetland adjacent to stream				

### HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check		Surface Soil Cracks (B6)	
Surface Water (A1) True Aquatic Plants (B14)			Sparsely Vegetated Concave Surface (B8)
X High Water Table (A2)	Hydrogen Sulfide Odor (C1)		X Drainage Patterns (B10)
X Saturation (A3)	Oxidized Rhizospheres on Living F	Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled So	ils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)			X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			X FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes NoX	Depth (inches):		
Water Table Present? Yes X No	Depth (inches): 8		
Saturation Present? Yes X No	_ Depth (inches):4	Wetland Hydrology Present? Yes X No	
(includes capillary fringe)		·····	9-1-1-
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspect	tions), if ava	liable:
Remarks:			
multiple primary and secondary hydrology indicators	nresent		
multiple primary and secondary hydrology indicators	present		

Sampling Point: Wetland WP-24

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3			. <u> </u>	Species Across All Strata:3 (B)
4			. <u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC:67% (A/B)
6				Dravalance Index workshoots
7				Tatal % Cover aft
		= Total Cove	er	10 Multiply By:
50% of total cover:	20% of	total cover:		$\begin{array}{c} \text{OBL species} \\ \hline 100 \\ \hline 100 \\ \hline 200 \hline \hline 200 \\ \hline 200 \\ \hline 200 \hline \hline 200 \\ \hline 200 \hline \hline 200 \\ \hline 200 \hline \hline 200 $
Sapling/Shrub Stratum (Plot size: 15				FACW species $100 \times 2 = 200.0$
1. Rubus allegheniensis	5		FACU	FAC species $0 x 3 = 0.0$
2				FACU species $5 \times 4 = 20.0$
3				UPL species $0 \times 5 = 0.0$
4				Column Totals: <u>115</u> (A) <u>230.0</u> (B)
5				$P_{\text{resulting as largest}} = P/A = 2.00$
6				
7.				Hydrophytic Vegetation Indicators:
8	_			1 - Rapid Test for Hydrophytic Vegetation
0				Yes 2 - Dominance Test is >50%
- 5	5	Total Cov		Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 3	20% of	total cover:	3	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Horb Stratum (Plot size: 5	20 /0 01		<u> </u>	data in Remarks or on a separate sheet)
Phalaris arundinacea	50		FACW	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			FACW	
2. Carex lurida	10			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Poa palustris	10			Definitions of Four Vegetation Strata:
5. Impatiens capensis	10		FACW	<b>Trop</b> Woody plants, excluding vines 2 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sanling/Shrub - Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	110	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of	total cover:	22	Weedy vine All weedy vince greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3.				
4.	_			
5.				Hydrophytic Vegetation
	_	= Total Cove	er	Present? Yes X No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)	-		
sample point meets hydrophytic vegetation indicators as d	ominance te	st is greater	than 50%	and PI is less than 3
		0		

rome beschption. (beschbe to the depth needed to document the indicator of commit the absence of indicators.)	
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type' Loc <sup>2</sup> Texture Remarks	
0 - 19 10YR 4/2 90 7.5YR 3/4 10 Concen PL,M Sandy clay loam	
· · · · · · · · · · · · · · · · · · ·	
·	
·	
· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·	
·	
-	
· · ·	
<sup>1</sup> Turner C. Concentration D. Depletion DM. Badward Matrix, MS. Masked Sand Crains	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.	oils <sup>3</sup> .
Historod (A1) Dark Surface (S7) 2 cm Muck (A10) (MI DA 147)	0110
Histic Eninedon (A2) Polyvalue Below Surface (S8) (MI RA 147, 148) Coast Prairie Bedoy (A16)	
Black Histic (A3) Thin Dark Surface (S9) (MI RA 147, 148) (MI RA 147, 148)	
Hvdrogen Sulfide (A4) Loamy Gleved 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) Very Shallow Dark Surface (TF1)	2)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)	,
Thick Dark Surface (A12) Redox Depressions (F8)	
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,	
MLRA 147, 148) MLRA 136)	
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation	and
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be preser	t,
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.	
Restrictive Layer (if observed):	
Туре:	
Depth (inches): No	
Remarks:	
Wetland WP-24





Site Photos

Wetland WP-24



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	Sampling Date: 05/21/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-24
Investigator(s):	Section, Township, Range: S19 T13N R5W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Convex	Slope (%): <u>10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.47489	Long:81.04946	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s61	28) NWI classi	fication: R4SBC
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances"	" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	vers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	NoX NoX NoX	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland 1 next to access road. Sample p	point does not m	neet wetland crit	eria.		

,	rs:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; o	Surface Soil Cracks (B6)	
Surface Water (A1)		True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Drainage Patterns (B10)	
Saturation (A3)		Oxidized Rhizospheres on Living	g Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled S	Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3)		Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aer	ial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B	9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No _	X Depth (inches):	
Water Table Present?	Yes No	X Depth (inches):	
Saturation Present?	Yes No	X Depth (inches):	Wetland Hydrology Present? Yes NoX
(includes capillary fringe)			
(includes capillary fringe) Describe Recorded Data (stre	am gauge, monitor	ing well, aerial photos, previous inspe	ections), if available:
(includes capillary fringe) Describe Recorded Data (stre	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks:	am gauge, monitor	ing well, aerial photos, previous inspe	ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	Lections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	Lections), if available:
(includes capillary fringe) Describe Recorded Data (stre Remarks: None observed	am gauge, monitor	ing well, aerial photos, previous inspe	L ections), if available:

Sampling Point: Upland WP-24

20	Absolute Dor	minant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	<u>% Cover Sp</u>	ecies? Status	Number of Dominant Species
2			Total Number of Dominant
3			Species Across All Strata: 5 (B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:20% (A/B)
6	·		Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	= To	tal Cover	$\frac{1}{0} \frac{1}{0} \frac{1}$
50% of total cover:	20% of total	cover:	$\frac{1}{1} = \frac{1}{1} = \frac{1}$
Sapling/Shrub Stratum (Plot size: 15 )	20		$\frac{1}{12} \times 2 = \frac{45.0}{45.0}$
1. Rubus allegneniensis		FACU	FAC species $141$ $3 = 564.0$
2. Rubus idaeus	15	FAC	FACU species $4 = 000$
3	. <u> </u>		UPL species $0 \times 5 = 0.0$
4			Column Totals: <u>156</u> (A) <u>609.0</u> (B)
5	- <u> </u>		Prevalence Index = $B/A = \frac{3.90}{1000}$
7	· ·		Hydrophytic Vegetation Indicators:
/			1 - Rapid Test for Hydrophytic Vegetation
8			No 2 - Dominance Test is >50%
9			<u>No</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
10	$\frac{35}{100} = To$	tal Cover	№ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>18</u>	20% of total	cover: 18	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)	45	54.011	No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Dactylis glomerata	45	FACU	
2. Schedonorus arundinaceus	46	FACU	<sup>1</sup> Indiastors of hydric coil and watered hydrology must
3. Solidago altissima	30	FACU	be present, unless disturbed or problematic.
4			Definitions of Four Vegetation Strata
5			
6.			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7			more in diameter at breast height (DBH), regardless of height
8	· ·		
9			<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10			m) tall.
11			
···-	121 <sub>= To</sub>	tal Cover	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>61</u>	20% of total	cover: 24	Weedwaine Allwoodwainee greater then 2.20 ft in
Woody Vine Stratum (Plot size: <u>30</u> )			height.
1	· ·		
2			
3			
4	- <u> </u>		Hydrophytic
5			Vegetation
	= To	tal Cover	Present? Yes <u>No ^</u>
50% of total cover:	20% of tota	cover:	
Remarks: (Include photo numbers here or on a separate	sheet.)		
hydrophytic vegetation indicators not present			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the in	dicator o	or confirm	the absence of indicators.)	
Depth	Matrix	Matrix Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 18	10YR 3/4	100					Clay loam	
-								
-								
-								
				·				·
								<u> </u>
-								
-								
								<u> </u>
-								
<sup>1</sup> Type: C=Co	ncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric S	oils <sup>3</sup> :
<u> </u>	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	e (S8) <b>(M</b>	LRA 147,	148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mar	trix (F3)			(MLRA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6	5)		Very Shallow Dark Surface (TF12	)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)	
Thick Da	rk Surface (A12)		Redox Depression	essions (F8	)			
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(l</b>	_RR N,		
MLRA	147, 148)		MLRA 13	6)			2	
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(N</b>	ILRA 13	6, 122)	Indicators of hydrophytic vegetation	and
Sandy R	edox (S5)		Piedmont Flo	odplain So	ils (F19)	(MLRA 14	(8) wetland hydrology must be present	·,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Туре:			_					
Depth (inc	hes):		_				Hydric Soil Present? Yes No	<u> </u>
Remarks:								

Site Photos

Upland WP-24







Project/Site: Washington-Polo Road - Phase 2	City/County:	Carroll County	Sampling Date:_05/21/24
Applicant/Owner: FirstEnergy		State: 0	H Sampling Point: Wetland WP-25
Investigator(s):	Section, Tov	vnship, Range: S24 T12N R5	W
Landform (hillslope, terrace, etc.):	Local relief (con	cave, convex, none): <u>Conca</u>	ve Slope (%):
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.47142		Long: <u>-81.04951</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612	28)	NWI c	lassification: N/A
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes X	No (If no, expla	ain in Remarks.)
Are Vegetation, Soil, or Hydrology significat	ntly disturbed?	Are "Normal Circumsta	nces" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	v problematic?	(If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling	point locations, tran	sects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: PEM wetland adjacent to int stream 03. to the east and west	Old culvert washed out connecting	wetland to western wetland a	area. Wetland continues outside survey area

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>X Drainage Patterns (B10)</li> <li>Roots (C3) Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes X No Depth (inches): 3	
Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	
multiple primary and secondary hydrology indicators present	

Sampling Point: Wetland WP-25

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2.				
3.				I otal Number of Dominant Species Across All Strata: 1 (B)
1	·			
				Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC: 100% (A/B)
6				Prevalence Index worksheet
7				Total % Cover of: Multiply by:
		= Total Cove	r	
50% of total cover:	20% of	total cover:		$OBL species \qquad 40 \qquad x \ 1 = 40.0 \qquad 120.0 \qquad x \ 1 = 40.0 \ x \ 1 =$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $65$ x 2 = $130.0$
1				FAC species x 3 =0.0
2				FACU species x 4 =0.0
2	·			UPL species $0 \times 5 = 0.0$
S				Column Totals: 105 (A) 170.0 (B)
4	·			
5	·			Prevalence Index = $B/A = 1.60$
6				Hydrophytic Vegetation Indicators:
7				1 - Panid Test for Hydronbytic Vegetation
8.				
9				res 2 - Dominance Test is >50%
		- Total Covo		Yes 3 - Prevalence Index is ≤3.0'
50% of total cover:	20% of	total cover:	:1	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover.	20 % 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>9</u> )	<u> </u>			No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Poa paiustris	60		FACW	
2. Acorus americanus	20		OBL	<sup>1</sup> Indiantara of hydric call and watland hydrology must
3. Carex stipata	10		OBL	he present unless disturbed or problematic
4. Leersia oryzoides	10		OBL	Definitions of Four Variation Strates
5 Juncus effusus	5		FACW	Definitions of Four Vegetation Strata:
<u> </u>				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
b				more in diameter at breast height (DBH), regardless of
7	·			height.
8				Sanling/Shrub - Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	105	- Total Covo		of size, and woody plants less than 3 28 ft tall
50% of total cover: 53	20% of	total cover	21	
Weadu Vine Stratum (Plat size: 30	2070 01			Woody vine - All woody vines greater than 3.28 ft in
(Plot size)				height.
1	·			
2	·			
3				
4				Hydrophytic
5.				Vegetation
		- Total Cove	r	Present? Yes X No
50% of total cover:	20% of	total cover:	1	
Pemerke: (Include photo numbers here or on a conserve)		10101 00101.		
comple point mosts hydrophytic vegetation indicators as d	sileel.)	at in granter	then EOO/	and Dillaga than 2
sample point meets hydrophytic vegetation indicators as d	sminance le	si is greater	inan 50%	and Priess than 3

Profile Desc	cription: (Describe t	o the depth	needed to docun	nent the i	ndicator o	or confirm	n the absence o	of indicators.)	
Depth	Matrix		Redo	x Features	s	0			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0 - 19	10YR 5/2	95	10R 3/4	5	Concen	PL,M	Clay loam		
-									
-									
							·		
		<u> </u>					·		
-									
-									
-							·		
-									
-									
-									
$^{1}$ Type: C-C	oncontration D-Dopl	otion PM-P	Poducod Matrix MS	-Mackad	Sand Gra	inc	<sup>2</sup> Location: PL	-Poro Lipipa M-Matrix	
	Indicators:			S=IVIASKEU	i Saliu Gla	1115.		ors for Problematic H	vdric Soils <sup>3</sup>
Histosol	(Δ1)		Dark Surface	(\$7)			2 0	m Muck (A10) <b>(MI RA</b> 1	47)
Histic Fr	nipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	I RA 147	. <b>148)</b> Co	ast Prairie Redox (A16)	
Black H	istic (A3)		Thin Dark Su	rface (S9)	) (MLRA 14	47. 148)	, <b>e</b> , ee	(MLRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)	, -,	Pie	edmont Floodplain Soils	(F19)
Stratifie	d Layers (A5)		X Depleted Mat	trix (F3)	,			(MLRA 136, 147)	
2 cm Mı	uck (A10) (LRR N)		Redox Dark S	Surface (F	<sup>-</sup> 6)		Ve	ry Shallow Dark Surface	e (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		Oth	her (Explain in Remarks	)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)				
Sandy N	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(L</b>	.RR N,			
MLR	A 147, 148)		MLRA 13	6)			2		
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (	(MLRA 136	5, 122)	°Indic	ators of hydrophytic ve	getation and
Sandy H	Redox (S5)		Piedmont Flo	odplain S	oils (F19) <b>(</b>	MLRA 14	48) wetl	and hydrology must be	present,
Stripped	d Matrix (S6)		Red Parent N	laterial (F	21) (MLRA	A 127, 14	/) unie	ess disturbed or problem	atic.
Restrictive	Layer (ir observed):								
Type:								× • • ×	
Depth (in	ches):						Hydric Soil F	resent? Yes <u>^</u>	No
Domorko									
Remarks.							1		





Site Photos

Wetland WP-25



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carro	II County	_ Sampling Date: 05/21/24
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland WP-25
Investigator(s):	Section, Township	, Range: S24 T12N R5W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave,	convex, none): <u>None</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.47135		Long:81.04957	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s61	28)	NWI classifi	cation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X	lo (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significa	Intly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (	If needed, explain any answe	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No	<u></u>
Remarks:							
Upland 02 south of wetland. Sample po	int does not me	et any	wetland criter	ia			

wetland Hydrology indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is r	equired; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is r     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 Imager	equired; check all that apply) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) y (B7)	Surrace Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Roots (C3)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         oils (C6)       Crayfish Burrows (C8)         Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No Depth (inches):	
Water Table Present? Yes	NoX Depth (inches):	
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge	e, monitoring well, aerial photos, previous inspec	ctions), if available:
Remarks: None observed		

Sampling Point: Upland WP-25

	Absolute Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u> Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2 3			Total Number of Dominant Species Across All Strata: 4 (B)
45			Percent of Dominant Species
6.	·		$\begin{array}{c} \text{That Ale OBL, FACW, OF FAC.} \\                   $
7.			Prevalence Index worksheet:
	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:	20% of total cover:		OBL species $0$ $x = 0.0$
Sapling/Shrub Stratum (Plot size: 15)			FACW species x 2 =0.0
1. Rubus allegheniensis	25	FACU	FAC species35 x 3 =105.0
2.			FACU species x 4 = 400.0
3			UPL species x 5 =0.0
4.			Column Totals: <u>135</u> (A) <u>505.0</u> (B)
5			Prevalence Index = $B/A = \frac{3.70}{1000}$
6	·		Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
8	· ·		No 2 - Dominance Test is >50%
9	· ·		No 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	25 = Total Cove	er	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>13</u>	20% of total cover:	13	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)	10	FAOL	$N_{0}$ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Solidago altissima	40	FACU	
2. Dichanthelium clandestinum	35	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Anthoxanthum odoratum	10	FACU	be present, unless disturbed or problematic.
4. Schedonorus arundinaceus	25	FACU	Definitions of Four Vegetation Strata:
5			
6			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7	<u> </u>		height.
8	<u> </u>		Sepling/Shrub Weedy planta evoluting vines less
9	<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10			m) tall.
11			Herb – All berbaceous (non-woody) plants, regardless
	110 = Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55</u>	20% of total cover:	22	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )			height.
1			
2			
3			
4			Hydrophytic
5	<u> </u>		Vegetation
	= Total Cove	er	Present? Yes <u>No X</u>
50% of total cover:	20% of total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)		
sample point does not meet any hydrophytic vegetation inc	dicators		

Profile Desc	ription: (Describe	the depth	needed to docun	nent the ind	icator o	r confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u> 1	Гуре'	Loc <sup>2</sup>	Texture Remarks	
0 - 18	10YR 4/4	100					Silty clay loam	
-								
-								
		·						
		<u> </u>						
		<u> </u>		<u> </u>				
-								
-								
-								
-								
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked Sa	and Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils <sup>3</sup>	:
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	vipedon (A2)		Polyvalue Be	low Surface	(S8) <b>(M</b> I	LRA 147,	148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9) <b>(N</b>	ILRA 14	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F2)	)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	trix (F3)			(MLRA 136, 147)	
2 cm Mu	CK (A10) <b>(LKK N)</b> L Delow Dork Surfeed	(111)	Redox Dark :	Surface (F6)	7)		Very Shallow Dark Sufface (TF12)	
Depieted	Below Dark Surface	(ATT)	Depieted Dar	K Sunace (F	()			
Thick Da	lik Sullace (ATZ) lucky Mineral (S1) (I		Redux Depre	$\sum_{n=1}^{n} M_{n} \sum_{i=1}^{n} M_{n} \sum_{i=1}^{m$	(E12) <b>/I</b>			
Oandy M	147, 148)		MLRA 13	6)	(1 12) (			
Sandy G	leyed Matrix (S4)		Umbric Surfa	, ce (F13) <b>(ML</b>	RA 136	5, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and	1
Sandy R	edox (S5)		Piedmont Flo	odplain Soils	s (F19) <b>(</b>	MLRA 14	(18) wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent N	Aterial (F21)	) (MLRA	127, 147	7) unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	ches):		_				Hydric Soil Present? Yes No X	
Remarks:								







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Project/Site: Washington-Polo Road - Phase 2	City/County:	Carroll County	Sampling Date:
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland WP-26
Investigator(s): JFW	Section, Tow	vnship, Range: S24 T12N R5W	
Landform (hillslope, terrace, etc.): Lowland	Local relief (con	cave, convex, none): <u>Concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.46944		Long: <u>-81.04941</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612)	8)	NWI class	sification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X	No (If no, explain in	n Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed?	Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic?	(If needed, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ng sampling	g point locations, transed	cts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	X X X	No No No	Is the Sampled Area within a Wetland?	Yes _	<u>x</u>	No
Remarks:							
PEM wetland in valley bottom and hillsid	PEM wetland in valley bottom and hillside seep area. Adjacent to int stream						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No No Depth (inches):	
Water Table Present? Yes X No Depth (inches): 3	N N
Saturation Present? Yes X No Depth (inches): 0 Wetla (includes capillary fringe)	and Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	if available:
Remarks:	
Multiple primary and secondary indicators present. Sample point meets all three wetland criteria	a.

Sampling Point: Wetland WP-26

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2 3				Total Number of Dominant Species Across All Strata: 4 (B)
4		·		Percent of Dominant Species
6	·			That Are OBL, FACW, OF FAC. (A/B)
7		·		Prevalence Index worksheet:
·		- Total Cove		Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species 40 x 1 = 40.0
Sapling/Shrub Stratum (Plot size: 15	20/0 01			FACW species50 x 2 =100.0
A Rosa multiflora	5		FACU	FAC species $0$ x 3 = $0.0$
1. <u></u>		·		FACU species $5 \times 4 = 20.0$
		·		$\frac{1100}{1100} \text{ species} \qquad 0 \qquad x = 0.0$
3		·	<u> </u>	Column Totolo: $95$ (A) $160.0$ (P)
4		·		
5 6.		·		Prevalence Index = $B/A = \frac{1.70}{1.70}$
7		·	······	Hydrophytic Vegetation Indicators:
· ·		·		1 - Rapid Test for Hydrophytic Vegetation
o		·		Yes 2 - Dominance Test is >50%
9	5		······	Yes 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of table areas 2		= Total Cove	er 2	No 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>5</u>	20% 01	total cover:	5	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>5</u> )	25			No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	20	·		
2. I ypha latifolia	30	·	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Onoclea sensibilis	25		FACW	be present, unless disturbed or problematic.
4. Symplocarpus foetidus	5		OBL	Definitions of Four Vegetation Strata:
5. Carex lurida	5		OBL	
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				height.
8.				
9.				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11		·		
	90	- Total Cov		ferb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3 28 ft tall
50% of total cover: 45	20% of	total cover:	18	
Woody Vine Stratum (Plot size: 30 )	20,00			Woody vine – All woody vines greater than 3.28 ft in height.
1		·		
2		·		
3		·		
4		·	······	Hydrophytic
5		·	. <u></u>	Vegetation
		= Total Cove	er	Present? Yes <u>~ NO</u>
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			
sample point meets hydrophytic vegetation indicators as d	ominance te	est is greater	than 50%	and PI less than 3

I

#### SOIL

Profile Desc	ription: (Describe t	o the depth	n needed to docum	ent the i	indicator o	or confirm	n the absence of indicators.)	
Depth	Matrix		Redox	Feature	S1	. 2		
(inches)							Remarks	
0 - 8	10YR 4/2	90	10YR 4/6	10	Concen	PL,M	Sandy loam	
8 - 19	10YR 5/1	80	10YR 5/6	20	Concen	PL,M	Sandy clay loam	
-								
		<u> </u>			·			
-								
-								
-								
-								
·							·	
-					<u> </u>			
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	=Masked	d Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils	s <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) <b>(M</b>	LRA 147,	, 148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Sur	face (S9	) (MLRA 14	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleyed	d Matrix (	(F2)		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mati	fix (F3)	-0)		(MLRA 136, 147)	
2 cm iviu	CK (A10) <b>(LRR N)</b> Bolow Dark Surface	(11)	Redox Dark S	ourrace (F	-0) (E7)		Very Shallow Dark Surface (TF12)	
Depieted	ark Surface (A12)	(ATT)	Depieted Dair	cone (F	; (F7) 8)			
Sandy M	lucky Mineral (S1) (I	RRN		solution (1	0) As (F12) <b>(I</b>	RRN		
	147. 148)	, , , , , , , , , , , , , , , , , , ,	MLRA 136	30 Ma33	C3 (I 12) <b>(</b> E	,		
Sandy G	leved Matrix (S4)		Umbric Surfac	ce (F13) (	(MLRA 136	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation ar	ıd
Sandy R	edox (S5)		Piedmont Floo	odplain S	oils (F19) <b>(</b>	MLRA 14	<b>48)</b> wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	aterial (F	21) (MLRA	127, 147	7) unless disturbed or problematic.	
Restrictive L	ayer (if observed):				, ,			
Type:								
Depth (inc	ches):						Hydric Soil Present? Yes X No	
Remarks								
1								





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Site Photos

Wetland WP-26



Soil

Project/Site: Washington-Polo Road - Phase 2	City/County: Carroll County	_ Sampling Date: 05/21/24
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland WP-26
Investigator(s):	Section, Township, Range: S24 T12N R5W	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): LRR N MLRA 124 Lat: 40.46928	Long: <u>-81.04928</u>	Datum: NAD 83
Soil Map Unit Name: Westmoreland-Rigley-Gilpin-Coshocton (s612	28) NWI classif	fication: N/A
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significant	ntly disturbed? Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answ	vers in Remarks.)
	to a second to a second to sect a second second	- torrest and the strengt of a

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>X</u> No <u>X</u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland on east side of PEM wetland					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Livir	ng Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled	d Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present?         Yes No _X _ Depth (inches):	
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Yes       No       X       Depth (inches):	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	Wetland Hydrology Present?         Yes         NoX           pections), if available:
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:       Remarks:	Wetland Hydrology Present? Yes No X
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:         None	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:         None	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:       None	Wetland Hydrology Present? Yes NoX pections), if available:
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       No       X       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:         None	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:         None	Wetland Hydrology Present? Yes No
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:       None	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes No _X       Depth (inches):         Saturation Present?       Yes No _X       Depth (inches):         (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp         Remarks:       None	Wetland Hydrology Present? Yes NoX pections), if available:
Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes No _X Depth (inches):         (includes capillary fringe)	Wetland Hydrology Present? Yes NoX

# Sampling Point: Upland WP-26

20	Absolute Domin	ant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	<u>% Cover</u> Specie	es? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3.			Species Across All Strata: 5 (B)
4.			()
5	·		Percent of Dominant Species
3. <u> </u>	·		That Are OBL, FACW, or FAC: (A/B)
б	·		Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	= Total	Cover	$\frac{1}{1} \frac{1}{1} \frac{1}$
50% of total cover:	20% of total co	ver:	
Sapling/Shrub Stratum (Plot size: 15 )			FACW species $25$ $x^2 = 1050$
1. Rosa multiflora	40	FACU	FAC species $35$ $x_3 = 105.0$
2. Rubus allegheniensis	20	FACU	FACU species95 x 4 =380.0
3.			UPL species $25 \times 5 = 125.0$
4			Column Totals: (A) (B)
5			
5			Prevalence Index = B/A = <u>3.90</u>
0	·		Hydrophytic Vegetation Indicators:
/			1 - Rapid Test for Hydrophytic Vegetation
8	- <u> </u>		No 2 - Dominance Test is >50%
9	·		No 3 - Prevalence Index is $\leq 3.0^{1}$
	60 = Total	Cover	No. 4. Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>30</u>	20% of total co	ver: 30	4 - Morphological Adaptations (Fronde supporting
Herb Stratum (Plot size: 5)			data in Remarks or on a separate sneet)
1. Dichanthelium clandestinum	35	FAC	No Problematic Hydrophytic Vegetation' (Explain)
<ul> <li>Solidado canadensis</li> </ul>	35	FACU	
2 2 2 Daucus carota	25		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3			be present, unless disturbed or problematic.
4			Definitions of Four Vegetation Strata:
5			The Meaduralante evolution visco 2 in (7.0 em) er
6			more in diameter at breast height (DBH) regardless of
7			height.
8.			
9			<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
10	·		m) tall
			,
11	05		Herb – All herbaceous (non-woody) plants, regardless
40	<u>95</u> = Total	Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>48</u>	20% of total co	ver: 19	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )			height.
1			
2			
3.			
4			
5			Hydrophytic
			Present? Yes No X
E0% of total acutors		Cover	
50% of total cover.	20% of total co	ver.	
Remarks: (Include photo numbers here or on a separate :	sheet.)		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Depth <u>Matrix</u>		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remark	S
0 - 18	10YR 4/4	100					Sandy clay loam		
-									
-									
-									
-									
				<u> </u>					
				<u> </u>					
-				<u> </u>					
-									
_									
1			MG			·	21	- Lisian M. Mate	·
Type: C=Co	ncentration, D=Depi	etion, RIVI=R	educed Matrix, Mis	S=IVIASKED S	sand Gra	ins.	Location: PL=Poi	e Lining, M=Matr	IX. Hydric Soils <sup>3</sup> :
Hyunc Son I			Darla Curfa an	(07)					
HIStosol	(A1) vinadan (A2)		Dark Surrace	(S7) Iow Surfood	(CO) /M		2 cm iv	IUCK (ATU) <b>(MLR#</b> Proirie Redev (A1	<b>A 14</b> <i>(</i> )
Histic Epipedon (A2)			Folyvalue Be	rface (SQ) (		LKA 147, 17 1/9)	(MI)	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0)
Black The Hydroge	n Sulfide (A4)		Loamy Gleve	d Matrix (F2	2)	+7, 140)	Piedmo	nt Floodolain Soi	ils (F19)
Stratified	Ll avers (A5)		Depleted Mat	trix (F3)	-)		(ML)	RA 136, 147)	10 (1 10)
2 cm Muck (A10) (I BR N) Bedox			Redox Dark S	rk Surface (F6) Very Shallow Dark Surface (TF12)			ice (TF12)		
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)			, F7)		Other (	Explain in Remar	ks)		
Thick Dark Surface (A12)			Redox Depressions (F8)				,		
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,									
MLRA 147, 148) MLRA 136)									
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)			<sup>3</sup> Indicator	s of hydrophytic v	regetation and				
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)			(8) wetland	hydrology must b	e present,				
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.				ematic.					
Restrictive L	ayer (if observed):								
Туре:	Туре:								
Depth (inches):							Hydric Soil Pres	ent? Yes	No
Remarks:	Remarks:								









Soil

Appendix C OEPA ORAM Data Forms





0	Absent			
1	Present very small amounts or if more common			
	of marginal quality			
2	Present in moderate amounts, but not of highest			
	quality or in small amounts of highest quality			
3	Present in moderate or greater amounts			
	and of highest quality			

## 42.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-MJA-052224-01 Washington-Polo Road - Phase 2



33.0

33.0

subtotal



Rater(s): JFW

Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3.0 36.0

max 20 pts.

max 10 pts.

### Metric 6. Plant communities, interspersion, microtopography.

ototal	6a. Wet	and Vegetation Communities.	Vegetation	Community Cover Scale
	Score all	present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	0	Aquatic bed	1	Present and either comprises small part of wetland's
	1	Emergent		vegetation and is of moderate quality, or comprises a
	0	Shrub		significant part but is of low quality
	0	Forest	2	Present and either comprises significant part of wetland's
	0	Mudflats		vegetation and is of moderate quality or comprises a small
	0	Open water		part and is of high quality
	0	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horiz	contal (plan view) Interspersion.		vegetation and is of high quality
	Select or	nly one.		
		High (5)	Narrative D	Description of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
	Х	None (0)		can also be present, and species diversity moderate to
	6c. Cove	erage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table	1 ORAM long form for list. Add		threatened or endangered spp
	or deduc	t points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Х	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)	Mudflat and	d Open Water Class Quality
	6d. Micr	otopography.	0	Absent <0.1ha (0.247 acres)
	Score all	present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	1	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	1	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more

Standing dead >25cm (10in) dbh

Amphibian breeding pools

Microtopogra	aphy	Cover	Scale

0	Absent		
1	Present very small amounts or if more common		
	of marginal quality		
2	Present in moderate amounts, but not of highest		
	quality or in small amounts of highest quality		
3	Present in moderate or greater amounts		
	and of highest quality		

#### 36.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html W-JFW-050124-03 Washington-Polo Road - Phase 2 last revised 1 February 2001 jjm





0	Absent			
1	Present very small amounts or if more common			
	of marginal quality			
2	Present in moderate amounts, but not of highest			
	quality or in small amounts of highest quality			
3	Present in moderate or greater amounts			
	and of highest quality			

# 22.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050124-02 Washington-Polo Road - Phase 2





0	Absent			
1	Present very small amounts or if more common			
	of marginal quality			
2	Present in moderate amounts, but not of highest			
	quality or in small amounts of highest quality			
3	Present in moderate or greater amounts			
	and of highest quality			

## 34.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050124-01 Washington-Polo Road - Phase 2



33.0 subtotal first page Date: 2024-04-30

33.0 Check all that apply and score as indicated. subtotal max 10 pts. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) 35.0 2.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** nax 20 pts subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 0 2 Forest Present and either comprises significant part of wetland's Mudflats vegetation and is of moderate quality or comprises a small 0 Open water part and is of high quality Other 3 Present and comprises significant part, or more, of wetland's 0 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or low Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage A predominance of native species, with nonnative spp high Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually Moderate 25-75% cover (-3) absent, and high spp diversity and often, but not always, Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. 0 Absent <0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) 1 Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh 0

Rater(s): JFW

Amphibian breeding pools

#### Microtopography Cover Scale

0	Absent		
1	Present very small amounts or if more common		
	of marginal quality		
2	Present in moderate amounts, but not of highest		
	quality or in small amounts of highest quality		
3	Present in moderate or greater amounts		
	and of highest quality		

## 35.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-043024-03 Washington-Polo Road - Phase 2




•	
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 26.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-043024-02 Washington-Polo Road - Phase 2





0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 27.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-043024-01 Washington-Polo Road - Phase 2





1	Present very small amounts or if more commor
	of marginal quality
2	Present in moderate amounts, but not of higher
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 35.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050124-04 Washington-Polo Road - Phase 2



woody debris removal

toxic pollutants

28.5

subtotal this page

farming

nutrient enrichment



0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 28.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050224-01 Washington-Polo Road - Phase 2







0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 24.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050124-05 Washington-Polo Road - Phase 2



Check all disturbances observed

woody debris removal

mowing

grazing

clearcutting

selective cutting

toxic pollutants

20.0

subtotal this page

Poor (1)

Recovered (6)

Recovering (3)

4c. Habitat alteration. Score one or double check and average

None or none apparent (9)

Recent or no recovery (1)

dredging

farming

shrub/sapling removal

nutrient enrichment

sedimentation

herbaceous/aquatic bed removal

W-JFW-050224-03 Washington-Polo Road - Phase 2



Amphibian breeding pools

Microtopography C	over Scale	e

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 22.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050224-03 Washington-Polo Road - Phase 2



toxic pollutants

#### subtotal this page last revised 1 February 2001 jjm

nutrient enrichment



	0	Absent
Î	1	Present very small amounts or if more common
		of marginal quality
Ì	2	Present in moderate amounts, but not of highest
		quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
		and of highest quality

### 29.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050224-02 Washington-Polo Road - Phase 2



selective cutting

toxic pollutants

woody debris removal

last revised 1 February 2001 jjm

dredging

nutrient enrichment

farming



## 27.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JFW-050224-04 Washington-Polo Road - Phase 2

2

3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts



16.5

subtotal first page 16.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. subtotal max 10 pts. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) 1.0 17.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** max 20 pts subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 2 Forest Present and either comprises significant part of wetland's Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other 3 Present and comprises significant part, or more, of wetland's 0 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or low Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage A predominance of native species, with nonnative spp high Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. 0 Absent <0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) 1 Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more 0 Standing dead >25cm (10in) dbh 0

Amphibian breeding pools

#### Microtopography Cover Scale 0 Absent

0	ADSEIL
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 17.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JBL-052224-05 Washington-Polo Road - Phase 2



43.5 subtotal first page Date: 2024-05-23

Rater(s): JBL

43.5 Check all that apply and score as indicated. subtotal max 10 pts. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) -1.0 42.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** max 20 pts subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 2 Forest Present and either comprises significant part of wetland's Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other 3 Present and comprises significant part, or more, of wetland's 0 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or low Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage high A predominance of native species, with nonnative spp Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. 0 Absent <0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) 1 Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh 0 Amphibian breeding pools

Microtopography Cover Scale	
0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 42.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JBL-052324-01 Washington-Polo Road - Phase 2







0	Absent
1	Present very small amounts or if more common
_	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 39.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-MJA-052224-05 Washington-Polo Road - Phase 2







2

3

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

Moderate 1 to <4ha (2.47 to 9.88 acres)

High 4ha (9.88 acres) or more

#### 19.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-MJA-052224-04 Washington-Polo Road - Phase 2



selective cutting

toxic pollutants

woody debris removal

dredging

nutrient enrichment

farming



0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 28.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-MJA-052224-03 Washington-Polo Road - Phase 2

subtotal

subtotal

max 6 pts

1.0

max 14 pts



Rater(s): MJA

<0.1 acres (0.04ha) (0 pts)

#### 11.0 Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check.

WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)





# 28.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-MJA-052224-02 Washington-Polo Road - Phase 2

2

3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts





0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 22.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JBL-052224-03 Washington-Polo Road - Phase 2





#### Narrative Description of Vegetation Quality

	semption of Vogetation Quanty
low	Low spp diversity and/or predominance of nonnative or
	disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare throatened or ordeneored spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

#### Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

#### Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

### 27.5 GRAND TOTAL (max 100 pts)

High (5)

Low (1) None (0)

or deduct points for coverage

Absent (1)

Score all present using 0 to 3 scale.

6d. Microtopography.

0

0

Moderately high(4) Moderate (3) Moderately low (2)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add

Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)

Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)

Standing dead >25cm (10in) dbh

Amphibian breeding pools

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JBL-052224-04 Washington-Polo Road - Phase 2



29.5 subtotal first page 29.5

subtotal

31.5

subtotal

max 10 pts.

2.0

nax 20 pts.



6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage



Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.



Mudflat and Open Water Class Quality 0 Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres) 1 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more

threatened or endangered spp

#### **Microtopography Cover Scale**

high

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

moderately high, but generally w/o presence of rare

A predominance of native species, with nonnative spp

the presence of rare, threatened, or endangered spp

and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,

### 31.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html W-JBL-052224-02 Washington-Polo Road - Phase 2 last revised 1 February 2001 jjm



17.0 subtotal first page

17.0 Metric 5. Special Wetlands. Check all that apply and score as indicated. subtotal max 10 pts. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) 0.017.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** nax 20 pts. subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 2 Forest Present and either comprises significant part of wetland's Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other 3 Present and comprises significant part, or more, of wetland's 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or low Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage high A predominance of native species, with nonnative spp Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually Moderate 25-75% cover (-3) absent, and high spp diversity and often, but not always, Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. 0 Absent <0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) 1 Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh 0 Amphibian breeding pools **Microtopography Cover Scale** 

### 17.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm W-JBL-052224-01 Washington-Polo Road - Phase 2

0

1

2

3

Absent

of marginal quality

and of highest quality

Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts


Site: Wetland WP-24

max 10 pts.

-1.0

max 20 pts.

รเ



Rater(s): JBL

Date: 2024-05-21

ba. we	tiand vegetation communities.	vegetation	Community Cover Scale
Score a	Il present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
0	Aquatic bed Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
0	Shrub		significant part but is of low quality
0	Forest	2	Present and either comprises significant part of wetland's
0	Mudflats		vegetation and is of moderate quality or comprises a small
0	Open water		part and is of high quality
0	Other	3	Present and comprises significant part, or more, of wetland's
6b. hor	izontal (plan view) Interspersion.		vegetation and is of high quality
Select c	only one.		
	High (5)	Narrative D	Description of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
Х	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
6c. Cov	erage of invasive plants. Refer		moderately high, but generally w/o presence of rare
to Table	e 1 ORAM long form for list. Add		threatened or endangered spp
or dedu	ct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
Х	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		
	Absent (1)	Mudflat and	d Open Water Class Quality
6d. Mic	rotopography.	0	Absent <0.1ha (0.247 acres)
Score a	Il present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
0	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
0	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
0	Standing dead >25cm (10in) dbh		

0 Amphibian breeding pools

## Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

#### 25.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html W-JBL-052124-01 Washington-Polo Road - Phase 2 last revised 1 February 2001 jjm



Site: Wetland WP-25

26.5subtotal first page Date: 2024-05-21

26.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. subtotal max 10 pts. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) 28.5 2.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** nax 20 pts. subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 2 Forest Present and either comprises significant part of wetland's Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other 3 Present and comprises significant part, or more, of wetland's 0 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or low Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage A predominance of native species, with nonnative spp high Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. 0 Absent <0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) 1 Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh 0

Amphibian breeding pools

# Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

# 28.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html W-JBL-052124-02 Washington-Polo Road - Phase 2 last revised 1 February 2001 jjm



3.0



6b. horizontal (plan view) Interspersion.

Select only one.



6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage





Nearly absent <5% cover (0) Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.



Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small Present and comprises significant part, or more, of wetland's vegetation and is of high quality

#### Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or
	disturbance tolerant native species
mod	Native spp are dominant component of the vegetation,
	although nonnative and/or disturbance tolerant native spp
	can also be present, and species diversity moderate to
	moderately high, but generally w/o presence of rare
	threatened or endangered spp
high	A predominance of native species, with nonnative spp
	and/or disturbance tolerant native spp absent or virtually
	absent, and high spp diversity and often, but not always,
	the presence of rare, threatened, or endangered spp

#### Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

#### **Microtopography Cover Scale**

0	Absent
1	Present very small amounts or if more common
	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality

#### 34.0 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html W-JBL-052124-03 Washington-Polo Road - Phase 2 last revised 1 February 2001 jjm

Appendix D QHEI Stream Data Forms

<b>ChieEPA</b>	Qualitative Habitat Evaluation Index and Use Assessment Field Sheet	OHEI Score: 46.0
Stream & Location: Stream WP-02	2 Washington-Polo Road - Phase 2	<i>RM: Date:</i>
S-JFW-050124-01	Scorers Full Name & Affiliation:	JFW Jacobs
River Code.	<i>STORET #: Lat./ Long.:</i> 40.61582	I -81.04271 Office verified location ⊠
1] SUBSTRATE Check OWLYTwo s estimate % or note BEST TYPES POOL RIFFLI BLDR /SLABS [10] BOULDER [9] COBBLE [8] GRAVEL [7] BEDROCK [5] NUMBER OF BEST TYPES: Comments	Aubstrate TYPE BOXES;       Check Ol         every type present       Check Ol         OTHER TYPES       POOL RIFFLE         BARDPAN [4]       20         DETRITUS [3]       ILIMESTONE [1]         BUCK [2]       TILLS [1]         MUCK [2]       WETLANDS [0]         SILT [2]       65         ARTIFICIAL [0]       SANDSTONE [0]         (Score natural substrates; ignore       RIP/RAP [0]         (Score natural substrates; ignore       SALCUSTURINE [0]         3 or less [0]       SHALE [-1]         COAL FINES [-2]       Esence 0 to 3:	NE (Or 2 & average) QUALITY HEAVY [-2] SILT MODERATE [-1] FREE [1] EXTENSIVE [-2] MODERATE [-1] MODERATE [-1] MODERATE [-1] MAXIMUM 20 MAXIMUM 20
quality; 2-M quality; 3-Highest quality in moderate or diameter log that is stable, well develop UNDERCUT BANKS [1] OVERHANGING VEGETATION [ OSHALLOWS (IN SLOW WATER) OROTMATS [1] Comments	Adderate amounts, but not of highest quality or in small amounts or r greater amounts (e.g., very large boulders in deep or fast water, ed rootwad in deep / fast water, or deep, well-defined, functional p 0 POOLS > 70cm [2] 0 ROOTWADS [1] 1 0 BOULDERS [1]	of highest largeCheck ONE (Or 2 & average) pools.pools.EXTENSIVE >75% [11]RS [1]MODERATE 25-75% [7]ES [1]SPARSE 5-<25% [3]
3] CHANNEL MORPHOLOGY CLOSITY         SINUOSITY         DEVELOPMEN         HIGH [4]       □ EXCELLENT [         MODERATE [3]       □ GOOD [5]         LOW [2]       ☑ FAIR [3]         NONE [1]       □ POOR [1]         Comments	neck ONE in each category (0r 2 & average)         NT       CHANNELIZATION       STABILITY         7]       X       NONE [6]       IHIGH [3]         Image: Recovered [4]       Image: Moderate [2]       Moderate [2]         Image: Recovering [3]       X       LOW [1]         Image: Recent or NO RECOVERY [1]       X       LOW [1]	Channel Maximum 20
4] BANK EROSION AND RIPAT         River right looking downstream       RIP         L       R         BROSION       B         BROSION       B <tr< td=""><td>RIAN ZONE Check ONE in each category for EACH BANK (Or         ARIAN WIDTH       FLOOD PLAIN QUALIT         E &gt; 50m [4]       Image: Forest, swamp [3]         DERATE 10-50m [3]       Image: Shrub or old field [2]         ROW 5-10m [2]       Image: Shrub or old field [2]         Y NARROW &lt; 5m [1]</td>       Image: Forest or for each category for each</tr<>	RIAN ZONE Check ONE in each category for EACH BANK (Or         ARIAN WIDTH       FLOOD PLAIN QUALIT         E > 50m [4]       Image: Forest, swamp [3]         DERATE 10-50m [3]       Image: Shrub or old field [2]         ROW 5-10m [2]       Image: Shrub or old field [2]         Y NARROW < 5m [1]	2 per bank & average)         TY         Image: Conservation tillage [1]         Image: Conservationtitee [1]         Image: Cons
5] <i>POOL / GLIDE AND RIFFLE .</i> MAXIMUM DEPTH CH Check ONE ( <i>ONLY</i> !) Check □ > 1m [6] □ POOL WI □ 0.7-<1m [4] ⊠ POOL WI □ 0.4-<0.7m [2] □ POOL WI □ 0.2-<0.4m [1] □ < 0.2m [0] <i>Comments</i>	/ RUN QUALITY         ANNEL WIDTH         ONE (Or 2 & average)         DTH > RIFFLE WIDTH [2]         DTH = RIFFLE WIDTH [1]         DTH = RIFFLE WIDTH [1]         DTH = RIFFLE WIDTH [0]         FAST [1]         Intremnitt         MODERATE [1]         Indicate for reach - pools and riff	IAL [-1] ENT [-2] Wes. Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) * Pool/ Current Maximum 12
Indicate for functional riffle of riffle-obligate species: RIFFLE DEPTH RUN BEST AREAS > 10cm [2] MAXIM BEST AREAS 5-10cm [1] MAXIM BEST AREAS < 5cm [metric=0] Comments	es; Best areas must be large enough to support a Check ONE (Or 2 & average). I DEPTH RIFFLE / RUN SUBSTRATE RIFF IUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] IUM < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	A population ILE / RUN EMBEDDEDNESS NONE [2] LOW [1] MODERATE [0] EXTENSIVE [-1] NONE [2] MODERATE [0] NONE [2] Riffle Run Maximum 8
6] <i>GRADIENI</i> (16.6 ft/mi) □ DRAINAGE AREA ( 1.98 mi <sup>2</sup> ) □ EPA 4520	VERY LOW - LOW [2-4] %POOL: 0 MODERATE [6-10] HIGH - VERY HIGH [10-6] %RUN: 10	%GLIDE: 85 Gradient %RIFFLE: 5 Maximum 10 06/16/06

A SAMPLED REACH Check ALL that apply	Comment RE: Reach consistency/I	s reach typical of steam?, Recreation	on/Observed - Inferred, Other/	Sampling observations, Concerns, Acc	cess directions, etc.
METHOD       STAGE         BOAT       1st -sample pass- 2nd         WADE       HIGH         L. LINE       UP         OTHER       NORMAL         DISTANCE       DRY					· · ·
□       0.5 Km         □       0.2 Km         □       0.15 Km         □       0.15 Km         □       0.12 Km         □       20 cm         □       40-70 cm         □       > 70 cm/ CTB         □       > 70 cm/ CTB         □       SECCHI DEPTHING         C       2nd         □       2nd         □       30%-<55%	B] AESTHETICS         Invasive Macrophytes         Excess TURBIDITY         Discoloration         FOAM / SCUM         OIL SHEEN         TRASH / LITTER         NUISANCE ODOR         SLUDGE DEPOSITS         CSOs/SSOs/OUTFALLS	D] MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	EJ ISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPS - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	<i>F] MEASUREMENTS</i> x̄ width 5 x̄ depth max. depth 12 x̄ bankfull width 8 bankfull x̄ depth W/D ratio bankfull max. depth floodprone x <sup>2</sup> width entrench. ratio <i>Legacy Tree:</i>

Stream Drawing: Stream WP-02







Downstream



<b>ChieEPA</b>	Qualitative Hal and Use Asse	bitat Evalu ssment Fi	ation Index	QHI	El Score:	36.0
Stream & Location. Stream WP-0	3 Washington-Polo Ro	oad - Phase 2		RM:	<i>Date:</i> 4/30	)/24
S-JFW-043024-04	Scc	orers Full Nan	ne & Affiliation:	JFW		Jacobs
River Code:		<i>L at./ L O</i> (NAD 83 - deci	<i>ng, :</i> 40.61400 mal °) -	<b>/</b> -81.04	299	Ince verified No.
1] SUBSTRATE Check ONLY Two s estimate % or note	substrate TYPE BOXES; every type present		Check O	NE ( <i>Or 2 &amp; a</i>	average)	
BEST TYPES POOL RIFFL	E OTHER TYPES		ORIGIN		QUALITY	
□ □ BLDR /SLABS [10] □ □ BOULDER [9]	$\square \square HARDPAN [4] \\ \square \square DETRITUS [3]$	<u></u>	TILLS [1]	CII T	MODERATE [	-1] Substrate
			WETLANDS [0]	SILI		
$\Box \Box GRAVEL[7] \qquad \overline{0} \qquad \overline{5}$			SANDSTONE [0]	4DDED.		2.0
	(Score natural su	bstrates; ignore	RIP/RAP [0]	AM NES		-1] Maximum
Comments	3 or less [0]		SHALE [-1]			20
comments		L	COAL FINES [-2]			
2] ///STREAM COVER Indicate pr quality; 2-I quality; 3-Highest quality in moderate o diameter log that is stable, well develop 0 UNDERCUT BANKS [1] 1 OVERHANGING VEGETATION [ 0 SHALLOWS (IN SLOW WATER) 1 ROOTMATS [1] Comments	esence 0 to 3: 0-Absent; 1 Moderate amounts, but not r greater amounts (e.g., ve bed rootwad in deep / fast w 0 POOLS > 70cr [1] 0 ROOTWADS [1 0 BOULDERS [1	-Very small amour       of highest quality       ry large boulders i       vater, or deep, weld       n [2]     0       O     OXE       1     0       1     1	ts or if more commor or in small amounts on n deep or fast water, I-defined, functional SOWS, BACKWATER JATIC MACROPHYT SOR WOODY DEB	o of marginal of highest large C bools. <b>RS [1]</b> <b>ES [1]</b> <b>RIS [1]</b>	AMOUNT theck ONE (Or 2 & EXTENSIVE >75 MODERATE 25-7 SPARSE 5-<25% NEARLY ABSEN	average)       % [11]       75% [7]       [3]       T <5% [1]
3] CHANNEL MORPHOLOGY CONSINUOSITY         DEVELOPMEI         □ HIGH [4]       □ EXCELLENT [         □ MODERATE [3]       □ GOOD [5]         ⊠ LOW [2]       □ FAIR [3]         □ NONE [1]       ⊠ POOR [1]         Comments       □	heck ONE in each category NT CHANNELIZ/ 7] ONONE [6] IX RECOVERED [4] ORECOVERING [3 RECENT OR NO	( (Or 2 & average) ATION ] RECOVERY [1]	STABILITY HIGH [3] MODERATE [2] LOW [1]		Cha Maxi	20 annel mum 8.0
4] BANK EROSION AND RIPAL         River right looking downstream         RIF         ■ ROSION         ■ NONE / LITTLE [3]         ■ NONE / LITTLE [3]         ■ MODERATE [2]         ■ HEAVY / SEVERE [1]         ■ NONE         Comments	RIAN ZONE Check ONE         PARIAN WIDTH         E > 50m [4]         DERATE 10-50m [3]         ROW 5-10m [2]         Y NARROW < 5m [1]         IE [0]	E in each category R ■ FOREST, SWA ■ SHRUB OR OI ■ RESIDENTIAL, ■ FENCED PASTURE	for <i>EACH BANK</i> (Or <b>PLAIN QUALIT</b> MP [3] LD FIELD [2] PARK, NEW FIELD FURE [1] RE, ROWCROP [0]	2 per bank & Y B C C C C C C C C C C C C C	R average) DNSERVATION TH RBAN OR INDUST NING / CONSTRU Dredominant land u m riparian. <u>Rip</u> Maxin	LLAGE [1] TRIAL [0] CTION [0] se(s) arian mum 10 8.0
51 POOL / GLIDE AND RIFELE	RUN OUALITY					
MAXIMUM DEPTH         CH           Check ONE (ONLY!)         Check           > 1m [6]         □ POOL W           □ 0.7-<1m [4]	ANNEL WIDTH ONE ( <i>Or 2 &amp; average</i> ) IDTH > RIFFLE WIDTH [2] IDTH = RIFFLE WIDTH [1] IDTH < RIFFLE WIDTH [0]	CURRI Chec TORRENTIAL VERY FAST FAST [1] MODERATE Indicate for	ENT VELOCITY k ALL that apply _ [-1] SLOW [1] INTERSTIT INTERMITT [1] EDDIES [1] reach - pools and riff	IAL [-1] ENT [-2]	Recreation Po Primary Con Secondary Co (circle one and commer Cu Maxia	tential <i>ntact</i> <i>contact</i> <i>it on back</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>x</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i> <i>contact</i>
Indicate for functional riffle	es; Best areas must	be large enou	igh to support a	populati	on NO DIEE	E [motric_0]
of riffle-obligate species:	Check O	NE (Or 2 & avera	ge). I <b>STRATF RIFF</b>			
BEST AREAS > 10cm [2] MAXIM BEST AREAS 5-10cm [1] MAXIM BEST AREAS < 5cm [metric=0] Comments	NUM > 50cm [2] □ STABL NUM < 50cm [1] □ MOD. □ UNSTA	LE / RON SOL E (e.g., Cobble, STABLE (e.g., La ABLE (e.g., Fine G	Boulder) [2] rge Gravel) [1] ravel, Sand) [0]		NE [2] W [1] DERATE [0] RENSIVE [-1]	Riffle / 0.0
6] GRADIENT (16.7 ft/mi)	VERY LOW - LOW [2-4]	%	POOL:	%GLIDE:	(100) Gra	dient
DRAINAGE AREA ⊠ ( 1.97 mi²) □	MODERATE [6-10] HIGH - VERY HIGH [10-6]	%	RUN: 0%	%RIFFLE:	0 Maxi	mum 10
EPA 4520						06/16/06

A SAMPLED REACH Check ALL that apply	Comment RE: Reach consistency/I	s reach typical of steam?, Recreation	on/Observed - Inferred, Other/	Sampling observations, Concerns, Acc	cess directions, etc.
METHOD STAGE BOAT 1st-sample pass- 2nd WADE HIGH L. LINE UP OTHER NORMAL DISTANCE DRY					· · ·
□       0.5 Km         □       0.2 Km         □       0.15 Km         □       0.15 Km         □       0.12 Km         □       0.12 Km         □       0.12 Km         □       20-<40 cm	BJAESTHETICS         Image: NUISANCE ALGAE         INVASIVE MACROPHYTES         EXCESS TURBIDITY         DISCOLORATION         FOAM / SCUM         OIL SHEEN         Image: TRASH / LITTER         NUISANCE ODOR         SLUDGE DEPOSITS         CSOs/SSOs/OUTFALLS         REATION         AREA DEPTH         POOL:	D] MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	E/ ISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPS - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	<i>FJ MEASUREMENTS</i> x̄ width <sup>3</sup> x̄ depth max. depth <sup>5</sup> x̄ bankfull width bankfull x̄ depth W/D ratio bankfull max. depth floodprone x <sup>2</sup> width entrench. ratio <i>Legacy Tree:</i>

Stream Drawing: Stream WP-03







Downstream



<b>ChieEPA</b>	Qualitative Hat and Use Asse	oitat Evalu ssment Fi	ation Index	QHL	El Score:	53.75
Stream & Location. Stream WP-1	2 Washington-Polo Ro	oad - Phase 2		RM:	Date: 5/1/2	4
S-JFW-050124-04		orers Full Nan	ne & Affiliation:	JFW		Jacobs
River Code.		L <i>at./ LC</i> (NAD 83 - deci	<i>ng.:</i> 40.57270 mal <sup>®</sup> ) -	<b>/</b> -81.04	600 <i>Oi</i>	fice verified location
1] SUBSTRATE Check ONLY Two s estimate % or note	substrate TYPE BOXES; every type present		Check O	NE ( <i>Or 2 &amp; a</i>	verage)	
BEST TYPES POOL RIFFL	E OTHER TYPES P		ORIGIN		QUALITY	
BLDR /SLABS [10]     BOULDER [9]	_ □ □ HARDPAN [4] _ □ □ □ DETRITUS [3]	<u>10 10 L</u>	LIMESTONE [1]		HEAVY [-2]	II Substrate
$\Box \Box COBBLE [8] \qquad \frac{5}{30} \qquad \frac{30}{40}$			WETLANDS [0]	SILT	NORMAL [0]	
$\square \square SAND [6] \qquad 20 40 \\10 10 $	_ ∐ SILT [2] <u>:</u> □ □ ARTIFICIAL [0]	<u>5 10 L</u>	SANDSTONE [0]	(DDE)	EXTENSIVE [-2	6.5
	(Score natural sub		RIP/RAP [0]	ANKS.		Maximum
	4 or more [2] Sludge from 3 or less [0]		SHALE [-1]	ш		20
comments			COAL FINES [-2]			
2] ///STREAM COVER Indicate pr quality; 2-f quality; 3-Highest quality in moderate o diameter log that is stable, well develop 2 UNDERCUT BANKS [1] 1 OVERHANGING VEGETATION [ 0 SHALLOWS (IN SLOW WATER) 1 ROOTMATS [1] Comments	esence 0 to 3: 0-Absent; 1- Moderate amounts, but not r greater amounts (e.g., ver ed rootwad in deep / fast w 0 POOLS > 70cn 1] 0 BOULDERS [1	Very small amour of highest quality ry large boulders i rater, or deep, we n [2] 0OXE 1] 0OXE 0O	nts or if more commo or in small amounts n deep or fast water, I-defined, functional BOWS, BACKWATE JATIC MACROPHYT S OR WOODY DEE	n of marginal of highest large C pools. RS [1] RS [1] RIS [1]	AMOUNT heck ONE (Or 2 & C EXTENSIVE >75% MODERATE 25-75 SPARSE 5-<25% NEARLY ABSENT CO Maxin	average) [11] [3] [3] [3] ver 1] ver 7.0
3] CHANNEL MORPHOLOGYC         SINUOSITY       DEVELOPMEN         □ HIGH [4]       □ EXCELLENT [         □ MODERATE [3]       ⊠ GOOD [5]         ⊠ LOW [2]       ⊠ FAIR [3]         □ NONE [1]       □ POOR [1]         Comments       □	heck ONE in each category TCHANNELIZA 7]  INONE [6] RECOVERED [4] RECOVERING [3] RECENT OR NO	( (Or 2 & average) ATION ] ] RECOVERY [1]	STABILITY ☐ HIGH [3] ☑ MODERATE [2] ☐ LOW [1]		Chai Maxin	nne/ 14.(
4] BANK EROSION AND RIPAN         River right looking downstream         RIF         BROSION         BRO	RIAN ZONE Check ONE         PARIAN WIDTH         E > 50m [4]         DERATE 10-50m [3]         DERATE 10-50m [2]         NARROW < 5m [1]	in each category FLOOI FOREST, SWA SHRUB OR OI RESIDENTIAL FENCED PAST OPEN PASTU	for <i>EACH BANK</i> (Or <b>PLAIN QUALI</b> MP [3] LD FIELD [2] , PARK, NEW FIELD FURE [1] RE, ROWCROP [0]	2 per bank & TY □ □ □ CC □ □ UF [1] □ □ MI Indicate µ past 100	average) DNSERVATION TIL RBAN OR INDUST NING / CONSTRUC Diredominant land us m riparian. <i>Ripa</i>	LAGE [1] RIAL [0] CTION [0] e(s) rian
Comments					Maxim	10 8.25
5)       POOL / GLIDE AND RIFFLE         MAXIMUM DEPTH       CH         Check ONE (ONLY!)       Check         □ > 1m [6]       □ POOL WI         □ 0.7-<1m [4]	/ RUN QUALITY IANNEL WIDTH ONE (Or 2 & average) IDTH > RIFFLE WIDTH [2] IDTH = RIFFLE WIDTH [1] IDTH < RIFFLE WIDTH [0]	CURRI Chec TORRENTIAI VERY FAST FAST [1] MODERATE Indicate for	ENT VELOCITY k ALL that apply _ [-1] SLOW [1] [1] INTERSTIT INTERMIT [1] EDDIES [1] reach - pools and rife	TAL [-1] TENT [-2] I fles.	Recreation Pote Primary Con Secondary Co (circle one and comment Po Curr Maxim	ential tact vntact on back) ×
Indicate for functional riffle of riffle-obligate species: RIFFLE DEPTH RUN BEST AREAS > 10cm [2] MAXIM BEST AREAS 5-10cm [1] MAXIM BEST AREAS < 5cm [metric=0] Comments	es; Best areas must Check O N DEPTH RIFFL IUM > 50cm [2] ⊠ STABL IUM < 50cm [1] ⊠ MOD. S □ UNSTA	be large enou NE (Or 2 & avera LE / RUN SUE E (e.g., Cobble, STABLE (e.g., La BLE (e.g., Fine G	igh to support a ge). STRATE RIFF Boulder) [2] rge Gravel) [1] Gravel, Sand) [0]	a populati ELE / RUN □ NO □ LO ☑ MO □ EX	ON EMBEDDEDNE NE [2] N [1] DERATE [0] Maxim	E [metric=0] ESS
6] <i>GRADIENT</i> (19.0 ft/mi) □ DRAINAGE AREA ⊠ (182 mi2) □	VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]	%	POOL: 20 RUN: 70	%GLIDE: %RIFFLE:	0 Grad 10 Maxin	lient num
EPA 4520						06/16/06

A SAMPLED REACH	Comment RE: Reach consistency/ I	s reach typical of steam?, Recreation	on/Observed - Inferred, Other/	Sampling observations, Concerns, Acc	cess directions, etc.
Check ALL that apply         METHOD       STAGE         BOAT       1st-sample pass- 2nd         WADE       HIGH         L. LINE       UP         OTHER       NORMAL         DISTANCE       DRY         0.5 Km       LOW         0.15 Km       OTHER         0.15 Km       SECCHI DEPTH         0.12 Km       30%-<55%	BIAESTHETICS	DI MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	<i>E</i> / <i>ISSUES</i> WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	<i>FJ MEASUREMENTS</i> x̄ width 3 x̄ depth max. depth <sup>24</sup> x̄ bankfull width 5 bankfull x̄ depth W/D ratio bankfull max. depth floodprone x <sup>2</sup> width entrench. ratio <i>Legacy Tree:</i>

Stream Drawing: Stream WP-12





Downstream



Upstream



<b>ChieEPA</b>	Qualitative Habitat Evaluation Index and Use Assessment Field Sheet	OHEI Score: 44.0
Stream & Location. Stream WP-2	1 Washington-Polo Road - Phase 2	RM: Date:
S-JBL-052324-03	Scorers Full Name & Affiliation:	JBL Jacobs
River Code.	STORET #: (NAD 83 - decimal 9) -	I -81.04654 Onice vertiled location ⊠
1] SUBSTRATE Check OWLY I wo s estimate % or note BEST TYPES DOL RIFFL BLDR /SLABS [10] BOULDER [9] COBBLE [8] GRAVEL [7] BEDROCK [5] NUMBER OF BEST TYPES: Comments	Substrate TYPE BOXES;       Check C         every type present       Check C         E       OTHER TYPES         POOL RIFFLE       IIMESTONE [1]         DETRITUS [3]       15         DETRITUS [3]       15         MUCK [2]       IIMESTONE [1]         SILT [2]       40         SILT [2]       40         SILT [2]       40         SANDSTONE [0]       SANDSTONE [0]         (Score natural substrates; ignore       RIP/RAP [0]         A or more [2]       Sludge from point-sources)         3 or less [0]       SHALE [-1]	ONE (Or 2 & average) QUALITY × HEAVY [-2] SILT NORMAL [0] FREE [1] × EXTENSIVE [-2] MODERATE [-1] Substrate 3.0 Maximum 20
2] ///STREAM COVER Indicate pr quality; 2-1 quality; 3-Highest quality in moderate o diameter log that is stable, well develop 1 UNDERCUT BANKS [1] 2 OVERHANGING VEGETATION [ 1 SHALLOWS (IN SLOW WATER) 0 ROOTMATS [1] Comments	esence 0 to 3: <b>0</b> -Absent; <b>1</b> -Very small amounts or if more commo Moderate amounts, but not of highest quality or in small amounts r greater amounts (e.g., very large boulders in deep or fast water, bed rootwad in deep / fast water, or deep, well-defined, functional 0 POOLS > 70cm [2] 0 OXBOWS, BACKWATE 1] 0 ROOTWADS [1] 0 AQUATIC MACROPHYT [1] 0 BOULDERS [1] 1 LOGS OR WOODY DEE	n of marginal AMOUNT of highest large Check ONE (Or 2 & average) pools. EXTENSIVE >75% [11] RS [1] MODERATE 25-75% [7] TES [1] SPARSE 5-<25% [3] BRIS [1] NEARLY ABSENT <5% [1] Cover Maximum 20
3] CHANNEL MORPHOLOGY C         SINUOSITY       DEVELOPMEI         □ HIGH [4]       □ EXCELLENT [         □ MODERATE [3]       □ GOOD [5]         □ LOW [2]       □ FAIR [3]         □ NONE [1]       □ POOR [1]         Comments       □	NE       CHANNELIZATION       STABILITY         7]       ⊠       NONE [6]       ☐       HIGH [3]         ☐       RECOVERED [4]       ☑       MODERATE [2]         ☐       RECOVERING [3]       ☐       LOW [1]	Channel Maximum 20
4] BANK EROSION AND RIPAL         River right looking downstream         RIF         RIF	RIAN ZONE Check ONE in each category for EACH BANK(OR         PARIAN WIDTH       FLOOD PLAIN QUALT         E > 50m [4]       Image: Bit of the sector of	r 2 per bank & average) TY L R CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] URBAN OR INDUSTRIAL [0] Indicate predominant land use(s) past 100m riparian. Riparian Maximum 10 10.
5] <i>POOL / GLIDE AND RIFFLE</i> MAXIMUM DEPTH CH Check ONE (ONLY!) Check □ > 1m [6] □ POOL WI □ 0.7-<1m [4] □ POOL WI □ 0.4-<0.7m [2] □ POOL WI □ 0.2-<0.4m [1] □ < 0.2m [0] <i>Comments</i>	/ RUN QUALITY         IANNEL WIDTH         ONE (Or 2 & average)         IDTH > RIFFLE WIDTH [2]         DTH = RIFFLE WIDTH [1]         IDTH = RIFFLE WIDTH [1]         IDTH < RIFFLE WIDTH [1]	FIAL [-1]         FIAL [-1]         TENT [-2]         Ifles.             Pool / Current Maximum 12
Indicate for functional riffle of riffle-obligate species: RIFFLE DEPTH RUN BEST AREAS > 10cm [2] MAXIM BEST AREAS 5-10cm [1] MAXIM BEST AREAS < 5cm [metric=0] Comments	es; Best areas must be large enough to support a Check ONE (Or 2 & average). N DEPTH RIFFLE / RUN SUBSTRATE RIFF IUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] IUM < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] WINSTABLE (e.g., Fine Gravel, Sand) [0]	A population NO RIFFLE [metric=0] FLE / RUN EMBEDDEDNESS NONE [2] LOW [1] MODERATE [0] EXTENSIVE [-1] NOME NONE [2] LOW [1] MODERATE [0] NOME RUN Maximum 8
6] <i>GRADIENT</i> ( 66.0 ft/mi) □ DRAINAGE AREA ( 2.0 mi <sup>2</sup> ) ⊠	VERY LOW - LOW [2-4]         %POOL: 20           MODERATE [6-10]         %RUN: 25	%GLIDE: 50 Gradient 4.0 %RIFFLE: 5 Maximum 10

A SAMPLED REACH Check ALL that apply	Comment RE: Reach consistency/ I	s reach typical of steam?, Recreation	on/Observed - Inferred, Other/	Sampling observations, Concerns, Ac	cess directions, etc.
Check ALL that apply         METHOD       STAGE         BOAT       1st-sample pass-2m         WADE       HIGH         L. LINE       UP         OTHER       NORMAL         DISTANCE       DRY         0.5 Km       LOW         0.15 Km       20 cm         0.12 Km       20 cm         0.12 Km       20 cm         61       > 70 cm/ CTB         meters       SECCHI DEPT         CANOPY       1st         S55%-<85%	BJAESTHETICS  DISCOLORATION	D] MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED ELOOD CONTROL / DEALNAGE	Circle some & COMMENT	<i>EJ ISSUES</i> WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPS - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME	FI MEASUREMENTS $\overline{x}$ width 7 $\overline{x}$ depth max. depth <sup>16</sup> $\overline{x}$ bankfull width 11 bankfull $\overline{x}$ depth W/D ratio bankfull max. depth floodprone x <sup>2</sup> width entrench. ratio
□ 10%-<30% <i>C] REC</i> □ <10%- CLOSED	<i>CREATION</i> AREA DEPTH <i>POOL:</i> □>100ft <sup>2</sup> □>3ft	FLOOD CONTROL / DRAINAGE		ATMOSPHERE / DATA PAUCITY	Legacy Tree:

Stream Drawing, Stream WP-21







Downstream



<b>ChieEPA</b>	Qualitative Habitat Evaluation Index and Use Assessment Field Sheet	OHEI Score: 54.5
Stream & Location. Stream WP-3	0 Washington-Polo Road - Phase 2	<i>RM: Date:</i>
S-JBL-052224-02	Scorers Full Name & Affiliation:	JBL Jacobs
River Code:	STORET #: (NAD 83 - decimal °) -	I-81.04871 Once verned location ×
I SUBSTRATE Cleck ONLY ING setimate % or note estimate % or note estimate % or note         BEST TYPES         BLDR /SLABS [10]         BOULDER [9]         COBBLE [8]         SAND [6]         BEDROCK [5]         NUMBER OF BEST TYPES:         Comments	Substrate TYPE BOXES, every type present       Check OI         E       OTHER TYPES POOL RIFFLE       X LIMESTONE [1]         Image: Deternitus [3]       Image: Deternitus [3]       Image: Deternitus [1]         Image: Deternitus [3]       Image: Deternitus [1]       Image: Deternitus [1]         Image: Deternitus [3]       Image: Deternitus [1]       Image: Deternitus [1]         Image: Deternitus [2]       30       10       Image: Deternitus [1]         Image: Deternitus [2]       Image: Deternitus [2]       Image: Deternitus [2]       Image: Deternitus [2]         Image: Deternitus [3]       Image: Deternitus [3]       Image: Deternitus	NE (Or 2 & average) QUALITY HEAVY [-2] SILT MODERATE [-1] NORMAL [0] FREE [1] MODERATE [-1] MODERATE [-1] MODERATE [-1] Maximum 20
2] INSTREAM COVER Indicate pr quality; 3-Highest quality in moderate of diameter log that is stable, well develop 1 UNDERCUT BANKS [1] 1 OVERHANGING VEGETATION   0 SHALLOWS (IN SLOW WATER) 1 ROOTMATS [1] Comments	esence 0 to 3: 0-Absent; 1-Very small amounts or if more commor Moderate amounts, but not of highest quality or in small amounts or r greater amounts (e.g., very large boulders in deep or fast water, ned rootwad in deep / fast water, or deep, well-defined, functional p 0 POOLS > 70cm [2] 0 ROOTWADS [1] 1 0 BOULDERS [1]	of marginal AMOUNT of highest large Check ONE (Or 2 & average) pools. □ EXTENSIVE >75% [11] RS [1] □ MODERATE 25-75% [7] RIS [1] □ NEARLY ABSENT <5% [1] Cover Maximum 20 10.0
3] CHANNEL MORPHOLOGY C         SINUOSITY       DEVELOPMEI         ☑ HIGH [4]       □ EXCELLENT           ☑ MODERATE [3]       ☑ GOOD [5]         □ LOW [2]       ☑ FAIR [3]         □ NONE [1]       □ POOR [1]         Comments       □	heck ONE in each category ( <i>Or 2 &amp; average</i> ) NT CHANNELIZATION STABILITY 7] □ NONE [6] □ RECOVERED [4] □ RECOVERING [3] □ LOW [1] □ RECENT OR NO RECOVERY [1]	Channel Maximum 20
4] BANK EROSION AND RIPA.         River right looking downstream         ■ EROSION         □ NONE / LITTLE [3]         □ MODERATE [2]         □ HEAVY / SEVERE [1]         □ NONE         Comments	RIAN ZONE       Check ONE in each category for EACH BANK (Or         PARIAN WIDTH       FLOOD PLAIN QUALIT         E > 50m [4]       Image: Stress stre	2 per bank & average) Y R CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] URBAN OR INDUSTRIAL [0] Indicate predominant land use(s) past 100m riparian. Maximum 10 T.5
5] <i>POOL / GLIDE AND RIFFLE</i> MAXIMUM DEPTH CH Check ONE ( <i>ONLY</i> !) Check □ > 1m [6] □ POOL W □ 0.7-<1m [4] ⊠ POOL W □ 0.4-<0.7m [2] □ POOL W □ 0.2-<0.4m [1] □ < 0.2m [0] <i>Comments</i> Max pool 24 inches	IANNEL WIDTH       CURRENT VELOCITY         ONE (Or 2 & average)       Check ALL that apply         IDTH > RIFFLE WIDTH [2]       CORRENTIAL [-1]       SLOW [1]         IDTH = RIFFLE WIDTH [1]       VERY FAST [1]       INTERSTIT         IDTH < RIFFLE WIDTH [0]	ALL [-1] ENT [-2] Wes. Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) * Pool/ Current Maximum 12
Indicate for functional riffle of riffle-obligate species: RIFFLE DEPTH RUI BEST AREAS > 10cm [2] MAXIN BEST AREAS 5-10cm [1] MAXIN BEST AREAS < 5cm [metric=0] Comments	es; Best areas must be large enough to support a Check ONE (Or 2 & average). N DEPTH RIFFLE / RUN SUBSTRATE RIFF IUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] IUM < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	Image: population       □ NO RIFFLE [metric=0]         LE / RUN EMBEDDEDNESS         □ NONE [2]         □ LOW [1]         □ MODERATE [0]         □ EXTENSIVE [-1]         8
6] <i>GRADIENT</i> (104.0 ft/mi) □ DRAINAGE AREA □ ( 1.15 mi <sup>2</sup> ) ⊠	VERY LOW - LOW [2-4]         %POOL:         10           MODERATE [6-10]         %RUN:         60         %	%GLIDE: 20 Gradient 4.0 %RIFFLE: 10 Maximum 10

A] SAMPLED REACH Check ALL that apply	Comment RE: Reach consistency/Is	s reach typical of steam?, Recreation	on/Observed - Inferred, Other/	Sampling observations, Concerns, Ac	cess directions, etc.
METHOD       STAGE         BOAT       1st-sample pass- 2nd         WADE       HIGH         L. LINE       UP         OTHER       NORMAL         DISTANCE       DRY         0.5 Km       LOW         0.15 Km       LOW         0.15 Km       20 cm         0.12 Km       20 cm         0.12 Km       20-<40 cm	B]AESTHETICS         Main         NUISANCE ALGAE         INVASIVE MACROPHYTES         EXCESS TURBIDITY         DISCOLORATION         FOAM / SCUM         OIL SHEEN         TRASH / LITTER         NUISANCE ODOR         SLUDGE DEPOSITS         CSOS/SSOS/OUTFALLS	D] MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	<i>EJ ISSUES</i> WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPS - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	F] MEASUREMENTS x̄ width 4 x̄ depth max. depth <sup>24</sup> x̄ bankfull width 7 bankfull x̄ depth W/D ratio bankfull max. depth floodprone x <sup>2</sup> width entrench. ratio Legacy Tree:

Stream Drawing, Stream WP-30

May 22-Jen & Jake 5- JD2-032224-01 eperioral alag Abad Cerptoner) 2 welligends on access reads we asked sincy area as detted 5-302-052224-02 QHEZ ALLINE PEn wellow og 89 NL pen cotton 02





Downstream



Appendix E HHEI Stream Data Forms

	n vvP-01
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	29
SITE NAME/LOCATION Stream WP-01 Washington-Polo Road - Phase 2	
SITE NUMBER RIVER BASIN RIVER BASIN RIVER CODE DRAINAGE AREA (mi <sup>2</sup> )	
LENGTH OF STREAM REACH (ft) LAT <u>40.61773254900004</u> LONG <u>-81.04269226299994</u> RIVER MILE	
DATE 05/01/2024 SCORER JFW COMMENTS Intermittent stream flowing through a maintained transmission line	e ROW
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instru	uctions
	RECOVERT
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       PERCENT       TYPE         BLDR SLABS [16 pts]       SILT [3 pt]       10         BOULDER (>256 mm)[16 pts]       Image: Compute type present)       SILT [3 pt]       10         BEDROCK [16 pts]       Image: Compute type present)       SILT [3 pt]       10         COBBLE (65-256 mm)[12 pts]       Image: Compute type present)       Sand (C 2 mm) [6 pts]       Image: Compute type present)         X       SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 10 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	A + B
2. Maximum Pool Depth ( <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet</i> ) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ON/ Y one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts] × < 5 cm [5pts]	
> 10 - 22.5 cm [25 pts]	5
> 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS       MAXIMUM POOL DEPTH (inches): 1.0	5
> 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS       MAXIMUM POOL DEPTH (inches):         2       RANK EULL WIDTH (Measured as the suprements)	Bankfull
> 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS       MAXIMUM POOL DEPTH (inches):         3.       BANK FULL WIDTH (Measured as the average of 3 - 4 measurements)       (Check ONLY one box):         > 4.0 meters (> 13') [30 pts]       > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	5 Bankfull Width
$ \begin{array}{  c   } \hline > 10 - 22.5 \text{ cm} \circ{[25 pts]} & \hline NO WATER OR MOIST CHANNEL [0pts] \\ \hline COMMENTS & MAXIMUM POOL DEPTH (inches): 1.0 \\ \hline 3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): \\ \hline > 4.0 meters (> 13') [30 pts] & \hline > 1.0 m - 1.5 m (> 3' 3'' - 4' 8'') [15 pts] \\ \hline > 3.0 m - 4.0 m (> 9' 7'' - 13') [25 pts] & \hline \times & \leq 1.0 m (\leq 3' 3'') [5 pts] \\ \hline \end{array} $	5 Bankfull Width Max=30
→ 10 - 22.5 cm [25 pts]           ∩ NO WATER OR MOIST CHANNEL [0pts]             COMMENTS           MAXIMUM POOL DEPTH (inches):             3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):           1.0             3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):           1.0             3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):           > 1.0             > 4.0 meters (> 13') [30 pts]           > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]             > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]           > 1.0 m (≤ 3' 3") [5 pts]             > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]           AVERAGE BANKFULL WIDTH (feet):	5 Bankfull Width Max=30 5
$ \begin{array}{  c   } \hline > 10 - 22.5 \text{ cm} \circle{15pts} \circle{1} \circl$	5 Bankfull Width Max=30 5
□       > 10 - 22.5 cm [25 pts]       □       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS       MAXIMUM POOL DEPTH (inches):       1.0         3.       BANK FULL WIDTH (Measured as the average of 3 - 4 measurements)       (Check ONLY one box):         □       > 4.0 meters (> 13') [30 pts]       □       > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]         □       > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]       □       > 1.0 m (≤ 3' 3") [5 pts]         □       > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]       □       > 1.0 m (≤ 3' 3") [5 pts]         COMMENTS       AVERAGE BANKFULL WIDTH (feet):       1.0         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★	5 Bankfull Width Max=30 5
$ \begin{array}{ c c c c c c c } \hline & 10 - 22.5 \ cm \left[ 25 \ pts \right] & & & & & & & & & & & & & & & & & & $	5 Bankfull Width Max=30 5
□       > 10 - 22.5 cm [25 pts]       □       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS       MAXIMUM POOL DEPTH (inches):       1.0         3.       BANK FULL WIDTH (Measured as the average of 3 - 4 measurements)       (Check ONL Y one box):       1.0         > 4.0 meters (> 13') [30 pts]       > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]       > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]         > 3.0 m - 4.0 m (> 9' 7" - 13')[25 pts]       □       > 1.0 m (< 3' 3")[5 pts]	5 Bankfull Width Max=30 5
□       > 10 - 22.5 cm [25 pts]       □       NO WATER OR MOIST CHANNEL [0pts]       1.0         3.       BANK FULL WIDTH (Measured as the average of 3 - 4 measurements)       (Check ONL Y one box):       1.0         > 4.0 meters (> 13) [30 pts]       > 1.0 m (> 3' 3" - 4' 8") [15 pts]       > 1.0 m (> 3' 3" - 4' 8") [15 pts]         > 3. m - 4.0 m (> 9' 7". 13) [25 pts]       > 1.0 m (> 3' 3" - 4' 8") [15 pts]       > 1.0 m (< 3' 3") [5 pts]	5 Bankfull Width Max=30 5
□       > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS       MAXIMUM POOL DEPTH (inches):       1.0         3.       BANK FULL WIDTH (Measured as the average of 3 - 4 measurements)       (Check ONLY one box):       > 1.0 m - 1.5 m (> 3' 3'' - 4' 8'')[15 pts]         > 3.0 m - 4.0 m (> 9' 7' - 13')[25 pts]       > 1.0 m - 1.5 m (> 3' 3'' - 4' 8'')[15 pts]       > 1.0 m (≤ 3' 3'' - 4' 8'')[15 pts]         > 3.0 m (> 4' 8' - 9' 7')[20 pts]       AVERAGE BANKFULL WIDTH (feet):       1.0         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *         RIPARIAN WIDTH       FLOODPLAIN QUALITY (Most Predominant per Bank)         L R       (Per Bank)       L R         Wide >10m       Mature Forest, Shrub or Old Field       Urban or Industrial         Open Pasture, Row Crop       Mining or Construction       Mining or Construction         COMMENTS	5 Bankfull Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity: Quantity:
Photo-documentation Notes:
Field Measures: Temp (°C)       Dissolved Oxygen (mg/l)       pH (S.U.)       Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N)       Yes       If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) NO       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) NO       Species observed (if known):         Salamanders Observed? (Y/N) NO       Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) NO Species observed (if known):
Comments Regarding Biology:

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Channel is braided and not well defined with vegetation growing within bottom area of defined banks Site Photos

Stream WP-01



Upstream



Downstream



						Stre	am WP-04
Chio Environmental Protection Agency	Headwat	er Habitat	Evalua HI	tion Index IEI Score (su	Field Fo m of metri	Orm cs 1+2+3)	27
SITE NAME/LOCATIC	N Stream WP-04 Washir	ngton-Polo Road -	Phase 2				
SITE NUMBER	043024-03 RIVER BASIN _	)5040001	RIVER	CODE	DRAINAG	E AREA (mi²)	
LENGTH OF STREAM	1 REACH (ft)	LAT 40.6082375	522000024	LONG -81.043068	396699995	RIVER MILE	
DATE 04/30/2024	SCORER JFW	COMMEN	TS Ephemer	al stream flowing th	rough a maintai	ned transmission	line ROW
NOTE: Complete All	Items On This Form	- Refer to "Hea	dwater Hat	itat Evaluation	Index Field N	lanual" for Ins	tructions
STREAM CHANNEL	MODIFICATIONS:	NONE / NATURA		RECOVERED X	RECOVERING		O RECOVERY
SUBSTRATE (Max of 32). A           TYPE           BLDR SLA           BOULDEF           BEDROCH           COBBLE           SAND (<2)	(Estimate percent of end         dd total number of signif         MBS [16 pts]         (>256 mm)[16 pts]         (16 pts]         (5-256 mm)[12 pts]         (2-64 mm)[9 pts]         (16 pts]	Very type present icant substrate typ ERCENT TY X X X X X X X X X X X X X X X X X X X		Y <u>two</u> predominant x of 8). Final metric <b>[3 pt]</b> PACK/WOODY DE DETRITUS <b>[3 pts]</b> or HARDPAN <b>[0 p</b> { <b>[0 pts]</b> FICIAL <b>[3 pts]</b>	t substrate <i>TYF</i> score is sum c EBRIS <b>[3 pts]</b> t]	2E boxes. f boxes A & B <u>PERCENT</u> 60 	HHEI Metric Points Substrate Max = 40
Total of Pe Bldr Slabs, Boul SCORE OF TWO MOS	ercentages of der, Cobble, Bedrock <u>1</u> T PREDOMINATE SUB	0 (A) STRATE TYPES:	12 <sub>то</sub> .	TAL NUMBER OF	SUBSTRATE 1	(B) TYPES: 5	A + B
2. Maximum Po time of evalua	ol Depth ( <i>Measure the</i> tion. Avoid plunge pools rs [20 pts]	maximum pool de from road culverts	e <b>pth within t</b> s or storm wat	he 61 meter (200 fo er pipes) (Cheo n - 10 cm [15 pts]	eet) evaluation k ONLY one bo	reach at the ox):	Pool Depth Max = 30
> 22.5 - 30 cm > 10 - 22.5 cm	[30 pts] [25 pts]		× < 5 0	m [5pts] WATER OR MOIST	CHANNEL [0	ots]	5
COMMENTS				MAXIMUM P	OOL DEPTH (i	nches): 1.0	
3. BANK FULL	WIDTH (Measured as th	e average of 3 - 4	measureme	nts) (Check OA	ILY one box):		Bankfull
> 4.0 meters (> > 3.0 m - 4.0 m	> 13') [30 pts] n (> 9' 7"- 13') [25 pts]		└ > 1.( × ≤ 1.(	) m - 1.5 m (> 3' 3" ) m (≤ 3' 3") <b>[5 pts]</b>	- 4' 8") <b>[15 pts]</b>		Width Max=30
> 1.5 m - 3.0 m	n (> 4' 8" - 9' 7") <b>[20 pts]</b>			AVERAGE BAN	IKFULL WIDTH	H (feet): 3.0	5
		This inform	ation <u>must</u> a	so be completed			
RIPAR	IAN ZONE AND FLOOD	PLAIN QUALITY	★ NOTE: R	iver Left (L) and Ri	ght (R) as looki	ng downstream ★	
L R (P	A <u>RIAN WIDTH</u> er Bank)	<u>FLOO</u> L R	DPLAIN QUA	LITY (Most Predom	ninant per Bank L R	x)	
└│ └│ Wid │ │ Moc ⋉ ⋉ Nar │ │ Non COMM	e >10m derate 5-10m row <5m e IENTS	Image: Mature       X       X       Image: Mature       Image: Mature	e Forest, We ture Forest, S lential, Park, I ed Pasture	tland Shrub or Old Field New Field	Cons	ervation Tillage n or Industrial n Pasture, Row Ci g or Construction	ор
FLOW X Stream Subsuri COMM	REGIME (At Time of Ev Flowing ace flow with isolated po IENTS	aluation) (Check ols (interstitial)	ONLY one b	ox): Moist Channel, i Dry channel, no	solated pools, i water (epheme	no flow (intermitte ral)	nt)
SINUC None 0.5	SITY (Number of bends	per 61 m (200 ft) ( 1.0 1.5	of channel) (	Check ONLY one b 2.0 2.5	Dox):	)	
STREAM GR	ADIENT ESTIMATE						
Flat (0.5 ft/100 ft)	Flat to Moderate	X Moderate (2	ft/100 ft)	Moderate to Se	evere	Severe (10 ft/	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S) UWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS
(Record all observations below)
Fish Observed? (Y/N)     Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) Yes Species observed (if known):
Salamanders Observed? (Y/N) NO Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location







Downstream



				S	tream WP-05
Chio Environmental Protection Agency	Headwate	er Habitat E	valuation Index HHEI Score (s	x Field Form um of metrics 1+2+3)	22
SITE NAME/LOCATIO	ON <u>Stream WP-05</u> Washir	ngton-Polo Road - Pha	se 2		
SITE NUMBER	043024-02 RIVER BASIN _	05040001	RIVER CODE	DRAINAGE AREA (mi <sup>2</sup> )	
LENGTH OF STREAM	и REACH (ft)	LAT 40.6054860450	0008 LONG -81.0432	1545999994 RIVER MILE	
DATE 04/30/2024	SCORER JFW	COMMENTS	Ephemeral stream flowing t	through a maintained transmission	on line ROW
NOTE: Complete Al	l Items On This Form	- Refer to "Headwa	ater Habitat Evaluation	ı Index Field Manual" for lı	structions
				_	
STREAM CHANNEL	MODIFICATIONS:	NONE / NATURAL CH	ANNEL RECOVERED		R NO RECOVERY
1. SUBSTRATE (Max of 32). A <u>TYPE</u>	. <b>(Estimate percent of ex</b> Add total number of signifi <u>Pl</u>	very type present). Cl icant substrate types for ERCENT <u>TYPE</u>	neck ONLY <u>two</u> predomina bund (Max of 8). Final metr	nt substrate <i>TYPE</i> boxes. ic score is sum of boxes A & B <u>PERCENT</u>	HHEI Metric
	ABS [16 pts]	≚⊔	SILT [3 pt]		Points
	K [16 pts]	HH	FINE DETRITUS [3 pts		Substrate
	(65-256 mm) <b>[12 pts]</b>		CLAY or HARDPAN [0	pt]	Max = 40
GRAVEL	(2-64 mm) <b>[9 pts]</b> <u>5</u>		MUCK [0 pts]		12
LI ≚ SAND (<2	2 mm) <b>[6 pts]</b>		ARTIFICIAL [3 pts]		12
Total of P Bldr Slabs, Bou	ercentages of	(A)	-	(B)	A + B
SCORE OF TWO MOS	ST PREDOMINATE SUB	STRATE TYPES: 9	TOTAL NUMBER OF	SUBSTRATE TYPES: 3	
2 Maximum Po	ol Depth (Measure the	maximum pool depth	within the 61 meter (200	feet) evaluation reach at the	Pool Denth
time of evalua	ation. Avoid plunge pools	from road culverts or s	storm water pipes) (Che	eck ONLY one box):	Max = 30
> 30 centimete	ers [20 pts]		5 cm - 10 cm [15 pts]	]	E
> 10 - 22.5 cm	[25 pts]		NO WATER OR MOIS	ST CHANNEL [0pts]	5
COMMENTS			MAXIMUM	POOL DEPTH (inches): 1.0	
3. BANK FULL	WIDTH (Measured as th	e average of 3 - 4 me	asurements) (Check O	NLY one box):	Bankfull
> 4.0 meters (	> 13') <b>[30 pts]</b>		> 1.0 m - 1.5 m (> 3' 3	5" - 4' 8") <b>[15 pts]</b>	Width
> 3.0 m - 4.0 r	n (> 9' 7"- 13') <b>[25 pts]</b>	×	≤ 1.0 m (≤ 3' 3") <b>[5 pts</b>	5]	Max=30
> 1.5 m - 3.0 f	ii (> 4 6 - 9 7 ) <b>[20 pis]</b>			_	5
COMMENTS			AVERAGE BA	NKFULL WIDTH (feet): 1.0	
		This information	n must also be completed		- 1
RIPA		PLAIN QUALITY 🔺	NOTE: River Left (L) and F	Right (R) as looking downstream	ו <b>★</b>
<u>RIP</u>	ARIAN WIDTH	<b>FLOODPL</b>	AIN QUALITY (Most Predo	ominant per Bank)	
	<sup>v</sup> er Bank)			L R	
	le >10m	Mature Fo	orest, Wetland	Conservation Tillage	9
	derate 5-10m	Immature	Forest, Shrub or Old Field		C
	ne		asture	Mining or Construct	on
	MENTS				
FLOW	I REGIME (At Time of Ev	aluation) (Check ON	LY one box):		
× Stream	Flowing	, (	Moist Channel,	, isolated pools, no flow (interm	ttent)
Subsur	face flow with isolated po	ols (interstitial)	Dry channel, no	o water (ephemeral)	
COM					
	USITY (Number of bends	per 61 m (200 ft) of ch	annel) (Check ONLY one	e box):	
$\times$ 0.5	H	1.5	$\begin{array}{c} 2.0 \\ 2.5 \end{array}$	$\square >3$	
STREAM GR	ADIENT ESTIMATE				
Flat (0.5 ft/100 ft)	Flat to Moderate	Moderate (2 ft/100	oft) X Moderate to S	Severe Severe (10	) ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton         NRCS Soil Map Page:       NRCS Soil Map Stream Order:         County:       Carroll         Township/City:       Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:         Elevated Turbidity? (Y/N):       No         Elevated Turbidity? (Y/N):       No         Lab Sample # or ID (attach results):         Field Measures: Temp (°C)       Dissolved Oxygen (mg/l)         Yes
Is the sampling reach representative of the stream (Y/N)       1003       If not, explain:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) NO       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) NO       Species observed (if known):         Salamanders Observed? (Y/N) NO       Species observed (if known):         Aquatic Macroinvertebrates Observed? (Y/N) NO       Species observed (if known):         Comments Regarding Biology:

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW	S-JFW-043024-02 EPI pu ord field
	C Flows
May 2020	3 old 2 Sield ReteineurRein

Site Photos

Stream WP-05



Upstream



Downstream



						Stre	am WP-06
Chio Environmental Protection Agency	Headwat	er Habita	at Eva	aluation Ind HHEI Score	lex Field F (sum of met	Form trics 1+2+3)	45
SITE NAME/LOCATI	ON_Stream WP-06 Washi	ington-Polo Roa	d - Phase	2			
SITE NUMBER	-043024-01 RIVER BASIN .	05040001		RIVER CODE	DRAINA	GE AREA (mi²)	
LENGTH OF STREA	M REACH (ft)	_ LAT <u>40.6025</u> 5	5	LONG <u>-81.04</u>	1336	RIVER MILE	
DATE 04/30/2024	_ SCORER _JFW	COMMI	ENTS	rmittent eroded channel flowing th	nrough a power line ROW and	d downstream from a residentia	l yard and pond
NOTE: Complete Al	I Items On This Form	n - Refer to "H	eadwate	er Habitat Evaluat	ion Index Field	Manual" for Ins	tructions
STREAM CHANNEL	WODIFICATIONS.	NONE / NATUR	RAL CHAN			G KRECENTOR	NO RECOVERY
SUBSTRATE (Max of 32). /           TYPE           □         BLDR SL           □         BOULDE           □         BEDROC           ×         COBBLE           ×         GRAVEL           ×         SAND (<	E (Estimate percent of e         Add total number of signi         P         ABS [16 pts]         R (>256 mm)[16 pts]         K [16 pts]         (65-256 mm)[12 pts]         2 mm) [6 pts]         2 mm) [6 pts]         2         Percentages of	Prery type prese ficant substrate f PERCENT PERCENT 25 25 40 10	ent). Check types four TYPE	ck ONLY <u>two</u> predom nd (Max of 8). Final n SILT <b>[3 pt]</b> LEAF PACK/WOOE FINE DETRITUS <b>[3</b> CLAY or HARDPAN MUCK <b>[0 pts]</b> ARTIFICIAL <b>[3 pts]</b>	ninant substrate <i>T</i> netric score is sum DY DEBRIS [3 pts] pts] I [0 pt]	YPE boxes. nof boxes A & B <u>PERCENT</u> 25 	HHEI Metric Points Substrate Max = 40 25
Bldr Slabs, Bou	ilder, Cobble, Bedrock	25 ( STRATE TYPE	<sup>A)</sup> s: 21	TOTAL NUMBER	OF SUBSTRATE	(B) E TYPES: 4	A + B
2. Maximum Petitime of evalu	bol Depth ( <i>Measure the</i> ation. Avoid plunge pools ers [20 pts] n [30 pts] n [25 pts]	<u>maximum</u> pool s from road culve	I depth w erts or sto X	ithin the 61 meter (2 rm water pipes) ( 5 cm - 10 cm [15 < 5 cm [5pts] NO WATER OR M	200 feet) evaluatic Check ONLY one pts] OIST CHANNEL	on reach at the box):	Pool Depth Max = 30
COMMENTS				MAXIMU	JM POOL DEPTH	(inches): 3.0	
3. BANK FULL	WIDTH (Measured as ti	he average of 3	- 4 meas	urements) (Chec	k ONLY one box)	):	Bankfull
> 4.0 meters ( > 3.0 m - 4.0	(> 13') <b>[30 pts]</b> m (> 9' 7"- 13') <b>[25 pts]</b>		×	> 1.0 m - 1.5 m (> < 1.0 m (< 3' 3") <b>[5</b>	3' 3" - 4' 8") <b>[15 pt</b> pts]	s]	Width Max=30
> 1.5 m - 3.0	m (> 4' 8" - 9' 7") <b>[20 pts]</b>					3.0	5
COMMENTS	i			AVERAGE	BANKFULL WID	TH (feet): 5.0	
		This info	rmation <u>n</u>	nust also be comple	eted		
RIPA	RIAN ZONE AND FLOO	DPLAIN QUALI	<b>FY</b> 🛧 N(	OTE: River Left (L) ar	nd Right (R) as loo	oking downstream 🖈	Ţ.
<u>RIP</u>	<u>ARIAN WIDTH</u> Per Bank)	<u>FLC</u>	ODPLAII	<u>N QUALITY</u> (Most Pr	edominant per Ba	nk)	
□□ Wi □□ Mc □□ Na □□ Na	de >10m derate 5-10m rrow <5m ne	L R	ture Fore mature Fo sidential, nced Pas	st, Wetland prest, Shrub or Old Fi Park, New Field ture	ield Co Mile Co Mile Co Mire Mir	nservation Tillage oan or Industrial en Pasture, Row C ning or Constructior	rop
COMI							_
FLOV Strean Subsu COMI	NEGIME (At Time of En Flowing face flow with isolated po MENTS	valuation) (Che	еск UNLY	Moist Chan	nel, isolated pools I, no water (epher	s, no flow (intermitte neral)	ent)
SINU None 0.5	OSITY (Number of bends	s per 61 m (200 f 1.0 1.5	ft) of char	inel) (Check ONLY 2.0 2.5	one box):	3.0 >3	
□ Flat (0.5 ft/100 ft)	☐ Flat to Moderate	× Moderate	e (2 ft/100 ft)	Moderate	to Severe		100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 4/30/24 Quantity:
Elevated Turbidity? (Y/N):       No       Canopy (% open):       100.0         Were samples collected for water chemistry? (Y/N):       No       Lab Sample # or ID (attach results):         Field Measures: Temp (°C)       Dissolved Oxygen (mg/l)       pH (S U)       Conductivity (umbos/cm)
Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) NO       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) NO       Species observed (if known):         Salamanders Observed? (Y/N) NO       Species observed (if known):         Aquatic Macroinvertebrates Observed? (Y/N) NO       Species observed (if known):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

XI.	ппппппппп	SAL
FLOW	S-JFW-043024-01	
	1 1/1 54 21	E iPut
	POLICIANT Flow 7 0 0	
	Theorem	
May 2020	B agi	

Site Photos

Stream WP-06



Upstream



Downstream



	Stream WP-07		
Headwater Habitat Evaluation Index Field HHEI Score (sum of r	d Form metrics 1+2+3) 22		
SITE NAME/LOCATION Stream WP-07 Washington-Polo Road - Phase 2			
SITE NUMBER RIVER BASIN RIVER CODE DRA	AINAGE AREA (mi²)		
LENGTH OF STREAM REACH (ft) LAT _40.59924 LONG81.04529	RIVER MILE		
DATE 05/21/2024 SCORER MJA COMMENTS Ephemeral stream originating in hay field	ld. Conveyed under road via culvert.		
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index F	ield Manual" for Instructions		
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE         BOULDER (>256 mm)[16 pts]       Z       SILT [3 pt]         BEDROCK [16 pts]       Z       LEAF PACK/WOODY DEBRIS[3]         COBBLE (65-256 mm)[12 pts]       3       CLAY or HARDPAN [0 pt]         SAND (<2 mm) [6 pts]	Ate TYPE boxes. s sum of boxes A & B PERCENT 70 70 70 70 70 70 70 70 70 70		
Bldr Slabs, Boulder, Cobble, Bedrock 5 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTR	(B) A + B RATE TYPES: 5		
<ol> <li>Maximum Pool Depth (Measure the <u>maximum</u> pool depth within the 61 meter (200 feet) eval time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY</li> </ol>	luation reach at the <b>Pool Depth</b>		
□ > 30 centimeters [20 pts] □ 5 cm - 10 cm [15 pts]			
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] X NO WATER OR MOIST CHANN	NEL [0pts]		
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): 2 + 0 meters (> 13') [30 nts] $2 + 0$ meters (> 13') [30 nts]			
= 3.0  m - 4.0  m (> 9' 7" - 13') [25  pts] $ = 4.0  m (< 3' 3") [5  pts]$	Max=30		
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	2.0 5		
COMMENTS AVERAGE BANKFULL			
This information <u>must</u> also be completed	as looking downstream +		
L R (Per Bank) L R L R	bi Dalik)		
Wide >10m       Mature Forest, Wetland       □         Moderate 5-10m       Immature Forest, Shrub or Old Field       □         Narrow <5m	Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction		
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):			
□       Stream Flowing       □       Moist Channel, isolated pools (interstitial)         □       Subsurface flow with isolated pools (interstitial)       ×       Dry channel, no water (e         COMMENTS        COMMENTS	pools, no flow (intermittent) phemeral)		
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):			
	3.0		
	」 >3		
STREAM GRADIENT ESTIMATE         Flat (0.5 ft/100 ft)         X         Flat to Moderate         Moderate (2 ft/100 ft)         Moderate to Severe	Severe (10 ft/100 ft)		

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         Distance from Evaluated Stream       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton         NRCS Soil Map Page:       NRCS Soil Map Stream Order:         County:       Carroll         Township/City:       Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 5/17/24 Quantity: 0.74
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) No Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location


Stream WP-07



Downstream



Substrate



Upstream

					Stre	am WP-08
Ohio Environmental Protection Agency	Headwate	er Habitat E	Valuation In HHEI Scor	idex Field F re (sum of met	Form trics 1+2+3)	37
SITE NAME/LOCATI	ON Stream WP-08 Washir	ngton-Polo Road - Ph	ase 2			
SITE NUMBER	-050124-03 RIVER BASIN _	05040001	RIVER CODE	DRAINA	GE AREA (mi²)	
LENGTH OF STREA	M REACH (ft)	LAT 40.598602049	00008 LONG -81.	.04359252799998	RIVER MILE	
DATE 05/01/2024	_ SCORER JFW	COMMENTS	Perennial stream flowing the	hrough a maintained trans	mission line ROW and P	PEM wetland
NOTE: Complete A	II Items On This Form	- Refer to "Heady	vater Habitat Evalu	ation Index Field	Manual" for Ins	tructions
STREAM CHANNEL		NONE / NATURAL C				NO RECOVERY
1. SUBSTRATE (Max of 32) TYPE BLDR SL BOULDE BEDROC COBBLE GRAVEL SAND (<	E (Estimate percent of example         Add total number of signif         PI         ABS [16 pts]         R (>256 mm)[16 pts]         XK [16 pts]         (65-256 mm)[12 pts]         . (2-64 mm) [9 pts]         2 mm) [6 pts]	very type present). (         icant substrate types         ERCENT       TYPE         Image: Strate strate types         Image: Strate str	Check ONLY two prede found (Max of 8). Fina SILT <b>[3 pt]</b> LEAF PACK/WOO FINE DETRITUS CLAY or HARDP, MUCK <b>[0 pts]</b> ARTIFICIAL <b>[3 pt</b>	ominant substrate <i>T</i> Il metric score is sum ODY DEBRIS <b>[3 pts]</b> <b>[3 pts]</b> AN <b>[0 pt]</b>	YPE boxes.           of boxes A & B           PERCENT           25	HHEI Metric Points Substrate Max = 40 7
Total of F Bldr Slabs, Bou SCORE OF TWO MO	<sup>2</sup> ercentages of Ilder, Cobble, Bedrock <u>0</u> ST PREDOMINATE SUB	(A) STRATE TYPES: 3		ER OF SUBSTRATE	(B) E TYPES: 4	A + B
2. Maximum P	ool Depth (Measure the	<u>maximum</u> pool dept	h within the 61 meter	r (200 feet) evaluatio	on reach at the	Pool Depth
> 30 centimet	ers [20 pts]	Inom road curvents of	5 cm - 10 cm [1	I5 pts]	507).	Max = 30
> 22.5 - 30 cm	n [30 pts]	ļ	< 5 cm [5pts]			25
× > 10 - 22.5 Cl						
COMMENTS	·		MAXII		(inches): 0.0	
3. BANK FULL	WIDTH (Measured as th	e average of 3 - 4 m	easurements) (Cho	eck ONLY one box)	):	Bankfull Width
> 4.0 meters	m (> 9' 7"- 13') <b>[25 pts]</b>		× ≤ 1.0 m (≤ 3' 3")	(> 3 3 - 4 8)[15 pt [5 pts]	sj	Max=30
> 1.5 m - 3.0	m (> 4' 8" - 9' 7") <b>[20 pts]</b>					5
COMMENTS	š		AVERAG	E BANKFULL WID	TH (feet): 3.0	
		This information	on must also be com	pleted		
RIPA	RIAN ZONE AND FLOOD		NOTE: River Left (L)	and Right (R) as loc	oking downstream 🖈	τ
RIP	ARIAN WIDTH	FLOODP	LAIN QUALITY (Most	Predominant per Ba	ınk)	
	Per Bank)					
U U Wi	de >10m	Mature F	Forest, Wetland		nservation Tillage	
	irrow <5m		tial. Park. New Field		oan or Industrial on Pasture, Row Ci	ron
	ne	Fenced	Pasture		ning or Construction	nop N
COM	MENTS				-	
FLOV × Stream Subsu	V REGIME (At Time of Ev ∩ Flowing rface flow with isolated pc MENTS	aluation) (Check O	NLY one box):	annel, isolated pools inel, no water (epher	s, no flow (intermitte neral)	ent)
SINU	OSITY (Number of bends	per 61 m (200 ft) of a	hannel) (Check ONL	Y one box):		
None	, Li	1.0	2.0	, X	3.0	
0.5		1.5	2.5		>3	
				ate to Severa		100 #)
						100 II)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name:
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
Elevated Turbidity? (Y/N): No Canopy (% open): 90.0
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) <u>No</u> If not, explain:
Extends into woods outside of the surveyed transmission line ROW
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS
Fish Observed? (Y/N) Yes Species observed (if known):
Erors or Tadpoles Observed (V/N) Yes Species observed (if known):
Salamanders Observed ( ( 1/N) Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) Species observed (if known):
Comments Regarding Biology:





Upstream



Downstream



						Stre	am WP-09
Chio Environmental Protection Agency	Headwat	ter Habitat	Evalua HI	tion Index IEI Score (su	Field F um of metr	OrM ics 1+2+3)	33
SITE NAME/LOCATI	ON Stream WP-09 Wash	ington-Polo Road -	Phase 2				
SITE NUMBER	-050224-02 RIVER BASIN .	05040001	RIVER	CODE	DRAINAC	GE AREA (mi²)	
LENGTH OF STREA	M REACH (ft)	_ LAT 40.5809832	9100005	LONG <u>-81.04470</u>	815899998	RIVER MILE	
DATE 05/02/2024	_ SCORER JFW	COMMEN	TS Intermitte	nt stream flowing	from a pond		
NOTE: Complete A	II Items On This Forn	n - Refer to "Hea	dwater Hat	itat Evaluation	Index Field	Manual" for Ins	tructions
STREAM CHANNE	_ MODIFICATIONS:	NONE / NATURAL		RECOVERED X			O RECOVERY
SUBSTRATI (Max of 32).           TYPE           BLDR SL           BEDR SL           BEDR SL           COBBLE           GRAVEL           SAND (<	E (Estimate percent of e         Add total number of signi         ABS [16 pts]         R (>256 mm) [16 pts]         CK [16 pts]         (65-256 mm) [12 pts]         (2-64 mm) [9 pts]         2 mm) [6 pts]	Prevery type present       ficant substrate type       PERCENT     TY       PERCENT     D       PERCENT     D	). Check ON/ es found (Ma PE SILT □ SILT □ FINE □ FINE □ CLAY □ MUCH □ ARTII	Y <u>two</u> predominan k of 8). Final metric <b>3 pt]</b> PACK/WOODY D DETRITUS <b>[3 pts]</b> or HARDPAN <b>[0 p</b> ( <b>[0 pts]</b> FICIAL <b>[3 pts]</b>	nt substrate <i>TY</i> c score is sum EBRIS <b>[3 pts]</b> I Dt]	PE boxes.           of boxes A & B           PERCENT           15	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Bor SCORE OF TWO MO	Jider, Cobble, Bedrock	5 (A) BSTRATE TYPES:	9 то <sup>.</sup>	AL NUMBER OF	SUBSTRATE	(B) TYPES: 4	A + B
2. Maximum P	ool Depth ( <i>Measure the</i>	maximum pool de	epth within the	ne 61 meter (200 f	feet) evaluation	n reach at the	Pool Depth
> 30 centimet	ers [20 pts]		∑ 5 cr	n - 10 cm <b>[15 pts]</b>		50,7).	Wax = 30
> 22.5 - 30 cr	n [30 pts]		< 5 0	m [5pts]		)ntc]	15
	- [20 pt0]					(inches): 3.0	
3 BANK EUL	WIDTH (Measured as t	he average of 3 - 4	measureme	nts) (Check Of	W Vone box):		Bankfull
$\rightarrow$ 4.0 meters	(> 13') [30 pts]	ne average er e	> 1.0	m - 1.5 m (> 3' 3"	' - 4' 8")[15 pts	]	Width
> 3.0 m - 4.0	m (> 9' 7"- 13') <b>[25 pts]</b>		× ≤ 1.0	0 m (≤ 3' 3") <b>[5 pts</b> ]	/		Max=30
COMMENTS	in (24 6 - 9 7 ) <b>[20 pis</b> ]			AVERAGE BAN	NKFULL WIDT	H (feet): 1.0	5
		This informa	ation must a	so be completed			
RIPA	RIAN ZONE AND FLOO	DPLAIN QUALITY	★ NOTE: R	iver Left (L) and R	ight (R) as lool	king downstream 🖈	
RIF	ARIAN WIDTH	FLOOD	OPLAIN QUA	LITY (Most Predor	minant per Ban	ık)	
	Per Bank)						
	de >10m pderate 5-10m prow <5m pre	│ │ Matur × × Imma ∩ Resid ↓ Fence	e Forest, We ture Forest, S ential, Park, I ed Pasture	land hrub or Old Field lew Field	Con Con Urba Cope Cope Mini	servation Tillage an or Industrial n Pasture, Row Cl ng or Construction	ор
COM							_
× Strear Subsu	n Flowing rface flow with isolated p	ools (interstitial)		Moist Channel, Dry channel, no	isolated pools, water (ephem	no flow (intermitte eral)	ent)
SINU	OSITY (Number of bends	s per 61 m (200 ft) c	of channel)	Check ONLY one	box):		
None	X	1.0 1.5		2.0 2.5	3 □>	.0 3	
STREAM GE		-		-			
Flat (0.5 ft/100 ft)	Flat to Moderate	X Moderate (2	ft/100 ft)	Moderate to S	Severe	Severe (10 ft/	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes IN QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
USGS Quadrangle Name: <u>Carrollton</u> NRCS Soil Map Page: NRCS Soil Map Stream Order: County: <u>Carroll</u> Township/City: <u>Center</u>
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Were samples collected for water chemistry? (Y/N): <u>NO</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) No If not, explain:
Stream exits maintained ROW into woods
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) No Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:



Stream WP-09



Upstream



Downstream



	Stream WP-10
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2)	<sub>+3)</sub> 24
SITE NAME/LOCATION_Stream WP-10 Washington-Polo Road - Phase 2	
SITE NUMBER S-JFW-050224-01 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (r	 ni²)
LENGTH OF STREAM REACH (ft) LAT <u>40.57771207600007</u> LONG <u>-81.04532285399995</u> RIVER MI	LE
DATE 05/02/2024 SCORER JFW COMMENTS Ephemeral stream flowing through a maintained transm	nission line ROW
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" f	or Instructions
	NT OR NO RECOVERY
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A         TYPE       PERCENT       TYPE         BLDR SLABS [16 pts]       SILT [3 pt]       90         BOULDER (>256 mm)[16 pts]       LEAF PACK/WOODY DEBRIS[3 pts]       90         COBBLE (65-256 mm)[12 pts]       TO       CLAY or HARDPAN [0 pt]       Image: Clay or HARDPAN [0 pt]         X       GRAVEL (2-64 mm) [9 pts]       10       MUCK [0 pts]       Image: Clay or HARDPAN [0 pt]         X       SAND (<2 mm) [6 pts]	& B Metric Points Substrate Max = 40 14
Total of Percentages of       0       (A)         Bldr Slabs, Boulder, Cobble, Bedrock       0       (A)         SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:       12       TOTAL NUMBER OF SUBSTRATE TYPES:	2 A + B
2. Maximum Pool Depth ( <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the time of evaluation. Avoid plugge pools from road culverts or storm water pipes) (Check ON/ X one box):	he Pool Depth
> 30 centimeters [20 pts] 5 cm - 10 cm [15 pts]	
	5
	1.0
S. BANK FOLL WIDTH (measured as the average of $3 - 4$ measurements) (Check OVL 7 one box). > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width
	Max=30
> 1.5 m - 3.0 m (> 4 8 - 9 7) [20 pts]           COMMENTS	1.0
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downs	tream ★
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)	
LR (Per Bank) LR LR	
Wide >10m       Mature Forest, Wetland       Conservation I         Moderate 5-10m       X X       Immature Forest, Shrub or Old Field       Urban or Indust         Narrow <5m	Illage trial Row Crop truction
COMMENTS	
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       X         Subsurface flow with isolated pools (interstitial)       Dry channel, isolated pools, no flow (in Dry channel, no water (ephemeral))         COMMENTS	termittent)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
X         None         □         1.0         □         2.0         □         3.0           □         0.5         □         1.5         □         2.5         □         >3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft)       Flat to Moderate       Moderate (2 ft/100 ft)       X Moderate to Severe       Seve	re (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This	Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIN	RE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS	Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Townsh	<sub>ip/City:</sub> Center
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation:	Quantity:
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>95.0</u>	
Were samples collected for water chemistry? (Y/N): <u>No</u> La	b Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{No}$ If no	t, explain:
Stream continues through wooded area	
Additional comments/description of pollution impacts:	
BIOLOGICAL OBSE	RVATIONS
(Record all observation	ans below)
Fish Observed? (Y/N) Species observed (if known):	
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known	own):
Salamanders Observed? (Y/N) NO Species observed (if known):	
Aquatic Macroinvertebrates Observed? (Y/N) No Species observ	red (if known):
Comments Regarding Biology:	

FLOW	S-JFW-050224-01	P
	P Sore 12	10
ind	interstittal	1
May 2020	AT 3 THACK	1 CP



Upstream



Downstream



	Stream	ו WP-11
Chio Environmental Protection Agency Headw	vater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	5
SITE NAME/LOCATION_Stream WP-11 Wa	Vashington-Polo Road - Phase 2	
SITE NUMBER S-MJA-052124-02 RIVER BAS	SIN DRAINAGE AREA (mi <sup>2</sup> )	
LENGTH OF STREAM REACH (ft)	LAT <u>40.57429740900005</u> LONG <u>-81.05002534499994</u> RIVER MILE	
DATE 05/21/2024 SCORER MJA	COMMENTS Stream flowing from pond via culvert.	
NOTE: Complete All Items On This Fo	Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instru	uctions
STREAM CHANNEL MODIFICATIONS		
STREAM CHANNEL MODIFICATIONS	S. I NONE / NATURAL CHANNEL IN RECOVERED IN RECOVERING IN RECENT OR NO	RECOVERY
1.       SUBSTRATE (Estimate percent (Max of 32). Add total number of s         TYPE       BLDR SLABS [16 pts]         BOULDER (>256 mm)[16 pts]         BEDROCK [16 pts]         COBBLE (65-256 mm)[12 pts]         GRAVEL (2-64 mm)[9 pts]         SAND (<2 mm) [6 pts]	t of every type present). Check ONLY two predominant substrate TYPE boxes. significant substrate types found (Max of 8). Final metric score is sum of boxes A & B           PERCENT         TYPE         PERCENT           Image: significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         Image: significant substrate types found (Max of 8). Final metric score is sum of boxes A & B           Image: significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         Image: significant substrate types found (Max of 8). Final metric score is sum of boxes A & B           Image: significant substrate types found (Image: significant substrat	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedroc SCORE OF TWO MOST PREDOMINATE S	ck 25 (A) SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 4	A + B
2.         Maximum Pool Depth (Measure time of evaluation. Avoid plunge p           □         > 30 centimeters [20 pts]           □         > 22.5 - 30 cm [30 pts]           □         > 10 - 22.5 cm [25 pts]	e the maximum pool depth within the 61 meter (200 feet) evaluation reach at the pools from road culverts or storm water pipes)       (Check ONLY one box):         X       5 cm - 10 cm [15 pts]         C< 5 cm [5pts]	Pool Depth Max = 30
2 BANK FULL WIDTH (Mossurod a	as the average of 2 - 4 measurements) (Check ON/ Vene box):	Bankfull
<ul> <li>&gt; 4.0 meters (&gt; 13') [30 pts]</li> <li>&gt; 3.0 m - 4.0 m (&gt; 9' 7"- 13') [25 pts]</li> <li>&gt; 1.5 m - 3.0 m (&gt; 4' 8" - 9' 7") [20]</li> </ul>	$ \begin{array}{c} \hline \\ [] \\ [] \\ [] \\ [] \\ [] \\ [] \\ [] \\ $	Width Max=30
COMMENTS	AVERAGE BANKFULL WIDTH (feet): 3.0	
	This information must also be completed	
RIPARIAN ZONE AND FL	LOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *	
<u>RIPARIAN WIDTH</u> L R (Per Bank)	FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R	
□       Wide >10m         □       Moderate 5-10m         ×       Narrow <5m	Mature Forest, Wetland       Conservation Tillage         Immature Forest, Shrub or Old Field       Urban or Industrial         X       Residential, Park, New Field       Open Pasture, Row Crop         Fenced Pasture       Mining or Construction	)
ELOW REGIME (At Time of	of Evaluation) (Check ONI X one box):	
Stream Flowing Subsurface flow with isolate	Moist Channel, isolated pools, no flow (intermittent) ted pools (interstitial) Dry channel, no water (ephemeral)	)
SINUOSITY (Number of be None 0.5	Image: Second specific distance       (Check ONLY one box):         Image: Second specific distance       2.0       3.0         Image: Second specific distance       2.5       >3	
STREAM GRADIENT ESTIMATE	E E	
Flat (0.5 ft/100 ft) Flat to Moderat	ate X Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100	) ft)



Stream WP-11



Upstream

Substrate

Downstream

Stre	am WP-13
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	56
SITE NAME/LOCATION_Stream WP-13 Washington-Polo Road - Phase 2	
SITE NUMBER	
LENGTH OF STREAM REACH (ft) LAT _40.573226344000034 LONG81.08742444299997 RIVER MILE	
DATE 05/01/2024 SCORER JFW COMMENTS Intermittent stream flowing through a residential yard	
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Ins	tructions
	IO RECOVERY
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes.	HHEI
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 40	Points
	Substrate
$\square \square COBBLE (65-256 mm)[12 pts] \qquad \square $	Max = 40
X     GRAVEL (2-64 mm) [9 pts]     40     MUCK [0 pts]	
SAND (<2 mm) [6 pts]	16
Total of Percentages of	
Bidr Slabs, Boulder, Cobble, Bedrock $\frac{10}{10}$ (A) (B) (B) (A)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	
2. Maximum Pool Depth ( <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the time of evaluation. Avoid plunge pools from read culturers or storm water pipes) (Check ONU Yang bay):	Pool Depth
> 30 centimeters [20 pts] $= 5  cm - 10  cm [15  pts]$	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5pts]	25
× > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0pts]	
COMMENTS MAXIMUM POOL DEPTH (inches): 0.0	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] × > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
$3.0 \text{ m} - 4.0 \text{ m} (> 9' 7'' - 13')$ [25 pts] $\leq 1.0 \text{ m} (\leq 3' 3'')$ [5 pts] $\leq 1.0 \text{ m} (\leq 3' 3'')$ [5 pts]	
	15
COMMENTS AVERAGE BANKFULL WIDTH (feet): 4.0	
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *	
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)	
LR (Per Bank) LR LR	
Wide >10m   Mature Forest, Wetland   Conservation Tillage	
Moderate 5-10m     Immature Forest, Shrub or Old Field     Urban or Industrial	
Image:	op
COMMENTS	_
Stream Flowing (intermitte	nt)
Subsurface flow with isolated pools (interstitial)	,
COMMENTS	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
$\square None \qquad \square 1.0 \qquad \square 2.0 \qquad \square 3.0 \qquad \square 3$	
L V.3 L 1.5 L 2.5 L >3	
X       Flat (0.5 ft/100 ft)       Flat to Moderate       Moderate (2 ft/100 ft)       Moderate to Severe       Severe (10 ft/10 ft)	100 ft)

QHEI PERFORMED?       Yes       No QHEI Score       (if Yes, Attach Completed QHEI form)         DOWNSTREAM DESIGNATED USE(S)	ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
DOWNSTREAM DESIGNATED USE(S)  Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream NMAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTITE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION. USGS Quadrangle Name: Carrollton NRCS Soil Map Page:NRCS Soil Map Stream Order: County: Carroll Township/City: Center MISCELLANEOUS Base Flow Conditions? (Y/N): Yes_Date of last precipitation: Photo-documentation Notes: Photo-documentation Notes: Field Measures: Temp (*C)Dissolved Oxygen (mg/l)PH (S.U.)Conductivity (umhos/cm)Field Measures: Temp (*C)Dissolved Oxygen (mg/l)PH (S.U.)Conductivity (umhos/cm)	QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
□       WWH Name:	DOWNSTREAM DESIGNATED USE(S)
□ CWH Name:       Distance from Evaluated Stream         □ EWH Name:       Distance from Evaluated Stream         □ BWH Name:       Carrollton         NRCS Soil Map Page:       NRCS Soil Map Stream Order:         County:       Carroll       Township/City:         County:       Carroll       Township/City:         MISCELLANEOUS       Base Flow Conditions? (Y/N):       No         Canopy (% open):       100.0       Quantity:         Photo-documentation Notes:	WWH Name: Distance from Evaluated Stream
□ EWH Name:	CWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name: Carroll NRCS Soil Map Page: NRCS Soil Map Stream Order:         County: Carroll Township/City: Center         MISCELLANEOUS         Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:	EWH Name: Distance from Evaluated Stream
USGS Quadrangle Name: <u>Carrollton</u> NRCS Soil Map Page:NRCS Soil Map Stream Order: County: <u>Carroll</u> Township/City: <u>Center</u> <u>MISCELLANEOUS</u> Base Flow Conditions? (Y/N): <u>Yes</u> Date of last precipitation: Quantity: Photo-documentation Notes: Elevated Turbidity? (Y/N): <u>No</u> Canopy (% open): <u>100.0</u> Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results): Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm) Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain: Additional comments/description of pollution impacts: <u>BiologicAl OBSERVATIONS</u> (Record all observations below) Fish Observed? (Y/N) <u>No</u> Species observed (if known): Salamanders Observed? (Y/N) <u>No</u> Species observed (if known):	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
County:       Carroll       Township/City:       Center         MISCELLANEOUS       Base Flow Conditions? (Y/N):       Yes       Date of last precipitation:       Quantity:	USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
MISCELLANEOUS         Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:         Photo-documentation Notes:         Elevated Turbidity? (Y/N): No Canopy (% open): 100.0         Were samples collected for water chemistry? (Y/N): No Lab Sample # or ID (attach results):         Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N) Yes If not, explain:         Additional comments/description of pollution impacts:	County: Carroll Township/City: Center
Base Flow Conditions? (Y/N): Yes Date of last precipitation:	MISCELLANEOUS
Photo-documentation Notes:	Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
ElevatedTurbidity? (Y/N):       No       Canopy (% open):       100.0         Were samples collected for water chemistry? (Y/N):       No       Lab Sample # or ID (attach results):	Photo-documentation Notes:
Were samples collected for water chemistry? (Y/N):       No       Lab Sample # or ID (attach results):         Field Measures: Temp (°C)       Dissolved Oxygen (mg/l)       pH (S.U.)       Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N)       Yes       If not, explain:	ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N) Yes If not, explain:         Additional comments/description of pollution impacts:         BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) Yes Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) No Species observed (if known):         Salamanders Observed? (Y/N) No Species observed (if known):         Augustia Meansing otherward? (Y/N) No	Were samples collected for water chemistry? (Y/N): No Lab Sample # or ID (attach results):
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:	Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Additional comments/description of pollution impacts:         BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) Yes       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) No       Species observed (if known):         Salamanders Observed? (Y/N) No       Species observed (if known):         Amustic Magnetic Magnetic Observed? (Y/N)       No         Species observed (if known):       Species observed (if known):	Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain:
Additional comments/description of pollution impacts:         BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) Yes       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) No       Species observed (if known):         Salamanders Observed? (Y/N) No       Species observed (if known):         Amustic Magnetic Magnetic Observed? (Y/N)       No         Species observed (if known):       Species observed (if known):	
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) Yes       Species observed (if known):	Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) Yes       Species observed (if known):	
(Record all observations below) Fish Observed? (Y/N) Yes Species observed (if known): Frogs or Tadpoles Observed? (Y/N) No Species observed (if known): Salamanders Observed? (Y/N) No Species observed (if known): Amustic Magnetic Observed? (Y/N) No Species observed (if known):	BIOLOGICAL OBSERVATIONS
Fish Observed? (Y/N)       Tess       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N)       No       Species observed (if known):         Salamanders Observed? (Y/N)       No       Species observed (if known):         Amustic Magnetic Observed? (Y/N)       No       Species observed (if known):	(Record all observations below)
Frogs or Tadpoles Observed? (Y/N)       NO       Species observed (if known):         Salamanders Observed? (Y/N)       NO       Species observed (if known):	Fish Observed? (Y/N) Species observed (if known):
Salamanders Observed? (Y/N) NO Species observed (if known):	Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Aquatia Maarainvartahrataa Ohaanvad2 (V/N) NO Spacios absonved (if known):	Salamanders Observed? (Y/N) NO Species observed (if known):
	Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:	Comments Regarding Biology:

	A A A A	
FLOW	S-JFW-050124-05	
	Ts Man	
	barrys lawned	
	and a	
10	BAME TION A	
	Mantanea to	
May 2020	Well will be arken	2A

Stream WP-13



Upstream



Downstream



Substrate

St	ream WP-14
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	16
SITE NAME/LOCATION Stream WP-14 Washington-Polo Road - Phase 2	
SITE NUMBER S-JFW-050224-03 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi <sup>2</sup> )	
LENGTH OF STREAM REACH (ft) LAT _40.566668004000064 _ LONG _81.04581915699998 _ RIVER MILE	
DATE 05/02/2024 SCORER JFW COMMENTS Ephemeral stream flowing through a maintained transmissio	n line ROW
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for In	structions
	••••••••
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OF	NO RECOVERY
	1
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes.	HHEI
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] XI SILT [3 pt]	Points
BOULDER (>256 mm)[16 pts]       Image: Control of the state in the st	Substrate
COBBLE (65-256 mm)[12 pts] CLAY or HARDPAN [0 pt] 70	Max = 40
GRAVEL (2-64 mm) [9 pts] MUCK [0 pts]	
SAND (<2 mm) [6 pts]	6
Total of Percentages of	
Bidr Slabs, Boulder, Cobble, Bedrock $\frac{0}{3}$ (A) (B) (B) (B) (A)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	
2. Maximum Pool Depth ( <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the time of evaluation. Avoid plunge peole from read guillate or sterm water piece) (Check ON! Verse beet)	Pool Depth
> 30 centimeters <b>[20 pts]</b> 5 cm - 10 cm <b>[15 pts]</b>	Max = 30
→ 22.5 - 30 cm [30 pts]     × < 5 cm [5pts]	5
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0pts]	
COMMENTS MAXIMUM POOL DEPTH (inches): 1.0	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width
> 3.0  m - 4.0  m (> 9' 7'' - 13') [25  pts] > 1.5 m - 3.0 m (> 4' 8'' - 9' 7'') [20 pts]	Max=30
	5
COMMENTS AVERAGE BANKFULL WIDTH (feet): 1.5	
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream	*
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)	
LR (Per Bank) LR LR	
Wide >10m Mature Forest, Wetland Conservation Tillage	
☐ ☐ Moderate 5-10m	
Image:	Crop
	n
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	topt)
Subsurface flow with isolated pools (interstitial)	ionity
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
□ None	
STREAM GRADIENT ESTIMATE	<b>#/4 00 #</b> )
	IV I UU IL)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Center
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) <u>No</u> If not, explain:
Sampled reach is in a maintained power line ROW but the stream continues into the woods
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) No Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):



Stream WP-14



Upstream



Downstream



					Stream WP-15
Ohio Environmental Protection Agency	Headwater Habit	at Evalu H	ation Index   IHEI Score (sun	Field Form n of metrics 1+2-	<sub>+3)</sub> 49
SITE NAME/I OCATIO	N Stream WP-15 Washington-Polo Ro	ad - Phase 2			
SITE NUMBER S-JFW-0	<sup>50224-04</sup> RIVER BASIN 05040001	RIVE	R CODE	_ DRAINAGE AREA (n	ni²)
LENGTH OF STREAM	REACH (ft) LAT 40.5643	33	_ LONG <u>-81.04585</u>	RIVER MI	LE
DATE 05/02/2024	SCORER JFW COMM	IENTS Perenn	ial stream flowing adja	cent to a large pond	
NOTE: Complete All	Items On This Form - Refer to "I	Headwater Ha	bitat Evaluation In	dex Field Manual" f	or Instructions
STREAM CHANNEL		JRAL CHANNEL			NT OR NO RECOVERY
1. SUBSTRATE (Max of 32). Au TYPE BLDR SLA BOULDER BEDROCK COBBLE ( COBBLE (	(Estimate percent of every type press         dd total number of significant substrate         PERCENT         .BS [16 pts]         .(>256 mm)[16 pts]         .(16 pts]	Sent). Check Of           types found (M           TYPE           X         SIL1           X         LEA           X         FINE           X         CLA           X         MUC	VLY <u>two</u> predominant s ax of 8). Final metric s [ <b>[3 pt]</b> F PACK/WOODY DEE E DETRITUS <b>[3 pts]</b> Y or HARDPAN <b>[0 pt]</b> CK <b>[0 pts]</b>	BRIS [3 pts]	<sup>&amp; B</sup> HHEI Metric Points Substrate Max = 40
Total of Pe Bldr Slabs, Bould SCORE OF TWO MOS	rrrm) <b>[o prs]</b> rcentages of der, Cobble, Bedrock <u>0</u> <b>T PREDOMINATE SUBSTRATE TYP!</b>	(A) ES: 12 TO	DTAL NUMBER OF SI	(B) UBSTRATE TYPES:	2 A + B
2. Maximum Poo	ol Depth ( <i>Measure the <u>maximum</u> poo</i>	ol depth within	the 61 meter (200 fee	et) evaluation reach at th	Pool Depth
× > 30 centimete	rs <b>[20 pts]</b>		cm - 10 cm <b>[15 pts]</b>		
> 22.5 - 30 cm	[30 pts]	< 5	cm [5pts]	CHANNEL [Onts]	20
	[ ]]		MAXIMUM PO	OL DEPTH (inches):	12.0
3. BANK FULL V	VIDTH (Measured as the average of 3 • 13') [30 pts] • (> 9' 7"- 13') [25 pts] • (> 4' 8" - 9' 7") [20 pts]	3 - 4 measurem	nents) (Check <i>ONL</i> .0 m - 1.5 m (> 3' 3" - .0 m (≤ 3' 3")[5 pts]	Yone box): 4′ 8")[15 pts]	Bankfull Width Max=30
COMMENTS			AVERAGE BANK	FULL WIDTH (feet):	4.5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY	$\star$ NOTE: River Left (L) and Right (R) as looking downstream $\star$

<u>RIP</u> LR (F	<u>ARIAN WIDTH</u> Per Bank)	LR	FLOODPLAIN QUA	<u>LITY</u> (Most Predo	ominant per	Bank)
□ □ Wic × □ Moo □ □ Nar □ × Nor	le >10m derate 5-10m row <5m ne		Mature Forest, We Immature Forest, S Residential, Park, I Fenced Pasture	tland Shrub or Old Field New Field		Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction
COMM FLOW ∑ Stream Subsur COMM	IENTS <u>Adjacent to a large</u> <b>REGIME</b> (At Time of Eval Flowing face flow with isolated pool IENTS	pond uation) Is (intersti	(Check <i>ONLY</i> one b tial)	ox): Moist Channel Dry channel, r	, isolated p o water (ep	ools, no flow (intermittent) hemeral)
SINUC None ⊠ 0.5 STREAM GR	DSITY (Number of bends pound of bend	er 61 m (ź 1.0 1.5	200 ft) of channel)	Check ONLY one 2.0 2.5	e box):	3.0 >3
× Flat (0.5 ft/100 ft)	Flat to Moderate	Mod	erate (2 ft/100 ft)	Moderate to	Severe	Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Center
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity: Quantity:
Elevated Turbidity? (Y/N): <u>No</u> Canopy (% open): <u>80.0</u> Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N) Yes         If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) Yes       Species observed (if known):
Comments Regarding Biology:





Upstream



Downstream



						Stre	am WP-16
Chio Environmental Protection Agency	Headwate	er Habitat	Evalua HI	tion Index F IEI Score (sum	Field Fo	orm cs 1+2+3)	20
SITE NAME/LOCATIO	ON Stream WP-16 Washin	gton-Polo Road - F	hase 2				
SITE NUMBER S-JFW-	050224-06 RIVER BASIN _0	5040001	RIVER	CODE	DRAINAGE	E AREA (mi²)	
LENGTH OF STREAD	M REACH (ft)	LAT 40.55625078	400004	LONG <u>-81.04567482</u>	2199997 I	RIVER MILE	
DATE 05/02/2024	_ SCORER _JFW	COMMENT	S Ephemer	al stream flowing throu	igh a maintaii	ned transmission	line ROW
NOTE: Complete Al	I Items On This Form	- Refer to "Head	water Hat	oitat Evaluation Inc	dex Field M	anual" for Inst	tructions
STREAM CHANNEL							
1. SUBSTRATE (Max of 32). / TYPE BLDR SL BOULDE BEDROC COBBLE GRAVEL SAND (<2	E (Estimate percent of ev         Add total number of signific         PE         ABS [16 pts]         R (>256 mm) [16 pts]         K [16 pts]         (65-256 mm) [12 pts]         (2-64 mm) [9 pts]         10         2 mm) [6 pts]	ery type present).           cant substrate type:           RCENT         TYP	Check ON s found (Ma <u>E</u> X SILT LEAF CLAY MUCI ARTII	Y <u>two</u> predominant su x of 8). Final metric so <b>[3 pt]</b> PACK/WOODY DEB DETRITUS <b>[3 pts]</b> f or HARDPAN <b>[0 pt]</b> < <b>[0 pts]</b> FICIAL <b>[3 pts]</b>	ubstrate <i>TYP</i> core is sum o [ RIS <b>[3 pts]</b>	E boxes. f boxes A & B PERCENT 60 20 10	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Bou SCORE OF TWO MOS	ercentages of Ilder, Cobble, Bedrock 0 ST PREDOMINATE SUBS	(A) TRATE TYPES:	от <b>то</b>	TAL NUMBER OF SU	BSTRATE T	(B) YPES: 4	A + B
2. Maximum Po	ool Depth ( <i>Measure the <u>n</u></i> ation. Avoid plunge pools f	naximum pool dep	oth within t	he 61 meter (200 feet er pipes) (Check (	t) evaluation	reach at the	Pool Depth
> 30 centimet	ers [20 pts]		5 cr	n - 10 cm <b>[15 pts]</b>		<i></i> ,.	
> 22.5 - 30 cm	n [30 pts] n [25 pts]		× < 5 0	m <b>[5pts]</b> WATER OR MOIST C	HANNEL [Or	its]	5
						1.0	
						icites).	Demisfull
> 4.0 meters (	> 13') [30 pts]	e average of 5 - 4 i		) m - 1.5 m (> 3' 3" - 4	' 8")[15 pts]		Width
> 3.0 m - 4.0 m	n (> 9' 7"- 13') <b>[25 pts]</b>		× ≤ 1.0	) m ( <u>≤</u> 3' 3") <b>[5 pts]</b>	/		Max=30
COMMENTS	m (> 4 8 - 9 7 ) <b>[20 pts]</b>			AVERAGE BANK	ULL WIDTH	l (feet): 1.0	5
		This informat	ion must a	so be completed			
RIPA	RIAN ZONE AND FLOOD	PLAIN QUALITY	* NOTE: R	iver Left (L) and Right	t (R) as lookii	ng downstream ★	
RIP	ARIAN WIDTH	FLOOD	PLAIN QUA	LITY (Most Predomina	ant per Bank	)	
LR ( Wir DMO Na XNO COMM	Jer Bank) Je >10m derate 5-10m rrow <5m ne MENTS	L R Mature X Immatu Reside	Forest, We ire Forest, S ntial, Park, I Pasture	L tland Intub or Old Field Intub or Old Field Intub New Field Intub Intub Intub Intu	R Conse	ervation Tillage or Industrial Pasture, Row Cr g or Construction	ор
FLOW	V REGIME (At Time of Eve	aluation) (Check (	DNLY one b	ox):			
Stream Subsul	) Flowing rface flow with isolated poo MENTS	ols (interstitial)	×	Moist Channel, isol Dry channel, no wa	ated pools, r ater (epheme	no flow (intermitte ral)	nt)
SINU	DSITY (Number of bends r	per 61 m (200 ft) of	channel) (	Check ONLY one box	x):		
<ul> <li>None</li> <li>x</li> <li>0.5</li> </ul>		1.0 1.5		2.0 2.5	3.0 3.0	)	
		Modoroto (= 4	(400.4)	Moderate to Sam			100 4)
- rat (0.5 ft/100 ft)			100 π)		are and		ιου π)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Lee
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>90.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) No If not, explain:
Sampled reach is in a maintained power line ROW but the stream continues into the woods
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS
(Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) <u>No</u> Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:

FLOW	S-JFW-050224-06 3193
	P 3 2 P P
May 2020	Nille in getain.

Stream WP-16



Upstream



Downstream



				St	ream WP-17
Chio Environmental Protection Agency	Headwate	er Habitat Ev	Valuation Index HHEI Score (su	x Field Form um of metrics 1+2+3)	20
SITE NAME/LOCATI	ON Stream WP-17 Washing	gton-Polo Road - Pha	se 2		
SITE NUMBER	-050224-05 RIVER BASIN _0	5040001	_ RIVER CODE	DRAINAGE AREA (mi²) _	
LENGTH OF STREA	M REACH (ft)	LAT 40.5555188750	00075 LONG -81.04569	399299999 RIVER MILE	
DATE 05/02/2024	_ SCORER _JFW	COMMENTS	Ephemeral stream flowing th	nrough a maintained transmissio	n line ROW
NOTE: Complete Al	I Items On This Form	- Refer to "Headwa	ater Habitat Evaluation	Index Field Manual" for In	structions
STREAM CHANNEL					
0					
1. SUBSTRATE (Max of 32). / TYPE BLDR SL BOULDE BEDROC COBBLE GRAVEL SAND (<2)	E (Estimate percent of evaluation of signific PE         Add total number of signific         PE         ABS [16 pts]         R (>256 mm) [16 pts]         K [16 pts]         (65-256 mm) [12 pts]         (2-64 mm) [9 pts]         2 mm) [6 pts]	ery type present). Cf cant substrate types for RCENT TYPE 	neck ONLY two predominan bund (Max of 8). Final metric SILT [3 pt] LEAF PACK/WOODY D FINE DETRITUS [3 pts] CLAY or HARDPAN [0 p MUCK [0 pts] ARTIFICIAL [3 pts]	tt substrate <i>TYPE</i> boxes. c score is sum of boxes A & B PERCENT 60 20 10 10 10 10 10 10 10 10 10 1	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Bou SCORE OF TWO MO	Ider, Cobble, Bedrock 0 ST PREDOMINATE SUBS	(A) TRATE TYPES: 6	TOTAL NUMBER OF	(B) SUBSTRATE TYPES: 4	A + B
2. Maximum Po	ool Depth ( <i>Measure the <u>n</u></i> ation. Avoid plunge pools f	naximum pool depth	within the 61 meter (200 f	feet) evaluation reach at the	Pool Depth
> 30 centimet	ers [20 pts]		5 cm - 10 cm <b>[15 pts]</b>		
> 22.5 - 30 cm	1 [30 pts]	×	< 5 cm [5pts]		5
					Daultfull
3. <b>BANK FULL</b> > 4.0 meters (	> 13') [30 pts]	average or 3 - 4 me	> 1.0 m - 1.5 m (> 3' 3"	' - 4' 8")[15 pts]	Width
> 3.0 m - 4.0	m (> 9' 7"- 13') <b>[25 pts]</b>	×	≤ 1.0 m (≤ 3' 3") <b>[5 pts</b> ]		Max=30
COMMENTS	n (> 4° 8° - 9° 7°) <b>[20 pts]</b>		AVERAGE BAN	NKFULL WIDTH (feet): 1.0	5
		This information	n must also be completed		
RIPA	RIAN ZONE AND FLOOD	PLAIN QUALITY 🔺	NOTE: River Left (L) and R	ight (R) as looking downstream	*
<u>RIP</u>	<u>ARIAN WIDTH</u> Per Bank)	<u>FLOODPL</u>	AIN QUALITY (Most Predor	minant per Bank)	
U III Wi U III Ma U IIII Na ⊠ ⊠ No COMI	de >10m Iderate 5-10m rrow <5m ne MENTS	Mature Fo	orest, Wetland Forest, Shrub or Old Field al, Park, New Field asture	Conservation Tillage Conservation Tillage Urban or Industrial Open Pasture, Row Mining or Construction	Crop on
FLOV	<b>V REGIME</b> (At Time of Eva n Flowing rface flow with isolated por	luation) (Check ON	LY one box): X Moist Channel, Dry channel, no	isolated pools, no flow (intermit	tent)
COMI	MENTS				
SINU × None	DSITY (Number of bends p	ber 61 m (200 ft) of ch 1.0	annel) (Check ONLY one	box):	
		1.5	2.5	□ >3	
Flat (0.5 ft/100 ft)	Flat to Moderate	Moderate (2 ft/100	off) Moderate to S	Severe X Severe (10	ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
L EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Lee
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>90.0</u>
Were samples collected for water chemistry? (Y/N): <u>NO</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) <u>No</u> If not, explain:
Sampled reach is in a maintained power line ROW but the stream continues into the woods
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) No Species observed (if known):
Salamanders Observed? (Y/N) No Species observed (if known)
Aquetic Macroinvortobrates Observed2 (X/N) NO Species observed (if known):
Comments Regarding Biology:

FLOW	P'S-JFW-0229-05 P'S-JFW-0229-05 P'S-JFW-0229-05 FN-0209-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-05 FN-0200-000-000-0000-000 FN-000-0000-0000-000	A.
	Pierre uplesome Pierre A	X
May 2020	R mowed Shand In Path	

Stream WP-17



Upstream





	Stre	am WP-18
Headwater Hab	itat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	18
SITE NAME/LOCATION Stream WP-18 Washington-Polo F	Road - Phase 2	
SITE NUMBER S-JBL-052224-07 RIVER BASIN 05040001	RIVER CODE DRAINAGE AREA (mi²)	
LENGTH OF STREAM REACH (ft) LAT 40.54	318123500008 LONG -81.04602975799997 RIVER MILE	
DATE 05/22/2024 SCORER JBL COM	MMENTS channelized outfall of pond	
NOTE: Complete All Items On This Form - Refer to	"Headwater Habitat Evaluation Index Field Manual" for Inst	tructions
		IO RECOVERY
1.       SUBSTRATE (Estimate percent of every type promulation (Max of 32). Add total number of significant substrational substrationa substratina substratindum substratina substrational substrationa	resent). Check ONLY two predominant substrate TYPE boxes.         ate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       PERCENT         Image: SILT [3 pt]       90         Image: LEAF PACK/WOODY DEBRIS[3 pts]       90         Image: FINE DETRITUS [3 pts]       90         Image: CLAY or HARDPAN [0 pt]       90         Image: MUCK [0 pts]       10	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock <u>0</u> SCORE OF TWO MOST PREDOMINATE SUBSTRATE TY	(A) (B) (B) 2	A + B
<ol> <li>Maximum Pool Depth (Measure the <u>maximum</u> p time of evaluation. Avoid plunge pools from road c</li> </ol>	<b>bool depth within the 61 meter (200 feet)</b> evaluation reach at the ulverts or storm water pipes) (Check <i>ONLY</i> one box):	Pool Depth Max = 30
> 30 centimeters <b>[20 pts]</b>	5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0pts]	5
COMMENTS	MAXIMUM POOL DEPTH (inches): 1.0	
3. BANK FULL WIDTH (Measured as the average of	of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max-30
> 3.0 m - 4.0 m (> 9 7 - 13) [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	× ≤ 1.0 m (≤ 3 3 ) [5 pts]	5
COMMENTS 2 ft OHWM	AVERAGE BANKFULL WIDTH (feet): 2.0	5
This i	nformation <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUA	<b>ALITY</b> ★ NOTE: River Left (L) and Right (R) as looking downstream★	
RIPARIAN WIDTH	FLOODPLAIN QUALITY (Most Predominant per Bank)	
Wide >10m       □         Moderate 5-10m       □         Narrow <5m	Mature Forest, Wetland       Conservation Tillage         Immature Forest, Shrub or Old Field       Urban or Industrial         Residential, Park, New Field       Open Pasture, Row Cr         Fenced Pasture       Mining or Construction	ор
COMMENTS		_
Stream Flowing     Subsurface flow with isolated pools (interstit     COMMENTS	ial)	nt)
SINUOSITY (Number of bends per 61 m (2	00 ft) of channel) (Check ONLY one box):	
□ None	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft) Flat to Moderate Mode	rate (2 ft/100 ft) X Moderate to Severe	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Lee
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 05/22/2024 Quantity: 0.01
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS
(Record all observations below)
Fish Observed? (Y/N) Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) YeS Species observed (if known):
Salamanders Observed? (Y/N) No Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:

FLOW	S-JBL-052224-07 ROW 9 93 53 POND 1 1023 B Party POND 1023 B Party
May 2020	pasture



Upstream



Downstream



	Stream WP-19
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+	. <sub>3)</sub> 42
SITE NAME/LOCATION_Stream WP-19 Washington-Polo Road - Phase 2	
SITE NUMBER	ii <sup>2</sup> )
LENGTH OF STREAM REACH (ft) LAT <u>40.540288850000024</u> LONG <u>-81.04634919199998</u> RIVER MIL	E
DATE 05/23/2024 SCORER JBL COMMENTS Riparian disturbance in ROW and past cattle disturbance	nce
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for	or Instructions
	TOK NO RECOVERT
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A 8         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE       PERCENT         BOULDER (>256 mm)[16 pts]       Image: Silt [3 pt]       30       30         BEDROCK [16 pts]       Image: Silt [3 pt]       30       Image: Silt [3 pt]       30         BEDROCK [16 pts]       Image: Silt [3 pt]       Image: Silt [3 pt]	HHEI Metric Points Substrate Max = 40
Bidr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 3	A + B
2. Maximum Pool Depth ( <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the	e Pool Depth
> 30 centimeters [20 pts] X 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5pts]	15
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): $1 \times 4.0$ meters ( $\times 13^{\circ}$ ) [30 nts]	Bankfull Width
= 3.0  m - 4.0  m (> 9' 7" - 13') [25  pts]	Max=30
COMMENTS OHWM 2 AVERAGE BANKFULL WIDTH (feet):	0
This information must also be completed	
<b>RIPARIAN ZONE AND FLOODPLAIN QUALITY ★</b> NOTE: River Left (L) and Right (R) as looking downstr	eam ★
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)	
LR (Per Bank) LR	
Wide >10m       Mature Forest, Wetland       Conservation Til         Moderate 5-10m       Immature Forest, Shrub or Old Field       Urban or Industr         X       Narrow <5m	lage ial tow Crop
	dellon
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       X         Moist Channel, isolated pools, no flow (interstitial)         Dry channel, no water (ephemeral)         COMMENTS	ermittent)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):         ▲       None       1.0       2.0       3.0         0.5       □       1.5       □       2.5       □       3.0	
Flat (0.5 ft/100 ft)       Flat to Moderate       Moderate (2 ft/100 ft)       Moderate to Severe       X Severe	€ (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:       NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Lee
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 05/22/2024 Quantity: 0.1
Photo-documentation Notes:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N) NO       If not, explain:         Stream continues through wooded area
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N)       No       Species observed (if known):

FLOW	S-JBL-052324-01 31 83
	AN Sty 18
	Flow
May 2020	Pasture old field

Stream WP-19



Upstream



Downstream



Stream	WP-20
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Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	61
SITE NAME/LOCATION_Stream WP-20       Washington-Polo Road - Phase 2         SITE NUMBER       S-JBL-052324-02       RIVER BASIN       05040001       RIVER CODE DRAINAGE AREA (mi <sup>2</sup> )         LENGTH OF STREAM REACH (ft)       LAT 40.53615       LONG -81.04637       RIVER MILE         DATE       05/23/2024       SCORER       JBL       COMMENTS       Int stream. Riparian disturbance from ROW maintenance         NOTE:       Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Inst         STREAM CHANNEL       MODIFICATIONS:       NONE / NATURAL CHANNEL       RECOVERED       RECOVERING       RECENT OR N	tructions
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       PERCENT       TYPE         BLDR SLABS [16 pts]       PERCENT       SILT [3 pt]         BOULDER (>256 mm)[16 pts]       SILT [3 pt]       25         BEDROCK [16 pts]       III       SILT [3 pt]       25         COBBLE (65-256 mm)[12 pts]       III       CLAY or HARDPAN [0 pt]       III         SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40
Total of Percentages of       10       (A)       12       (B)       4         Score of Two Most Predominate Substrate Types:       12       Total NUMBER OF SUBSTRATE Types:       4         2.       Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):         > 30 centimeters [20 pts]       5 cm - 10 cm [15 pts]       5 cm (5pts]         > 10.       23.5 cm [25 pts]       NO.W/ATER OF MOIST CHANNEL [0pts]	A + B Pool Depth Max = 30 25
COMMENTS     MAXIMUM POOL DEPTH (inches):     8.0       3     BANK ELUL / WIDTH (Measured as the suprementa)     (Check OM/ Years ber);	Bankfull
S.       BARK FOLL WIDTH (measured as the average of 3 - 4 measurements)       (Check ONL + one box): $\bigcirc$ > 4.0 meters (> 13') [30 pts] $\bigcirc$ $\bigcirc$ > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] $\bigcirc$ $\times$ > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] $\bigcirc$	Width Max=30
COMMENTS OHWM 5 AVERAGE BANKFULL WIDTH (feet): 5.0	
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *         RIPARIAN WIDTH       FLOODPLAIN QUALITY (Most Predominant per Bank)         L       R       L       R         Image: Participation of the state	op
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         X       Stream Flowing       Moist Channel, isolated pools, no flow (intermitte Dry channel, no water (ephemeral)         COMMENTS       OMMENTS       SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       X       1.0       2.0       3.0         0.5       1.5       2.5       3	nt) 
STREAM GRADIENT ESTIMATE  Flat (0.5 ft/100 ft) Flat to Moderate Severe Severe Severe Severe Severe Severe	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Lee
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 5/22/24 Quantity: 0.1 Photo-documentation Notes:
Elevated Turbidity? (Y/N):       No       Canopy (% open):       100.0         Were samples collected for water chemistry? (Y/N):       No       Lab Sample # or ID (attach results):
Is the sampling reach representative of the stream (Y/N) <u>No</u> If not, explain: Sampled reach is in a cleared transmission line ROW, but the stream continues through forest
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) No       Species observed (if known):
Comments Regarding Biology:


Stream WP-20



Downstream



Upstream



Chio Environmental Protection Agency Headwater Habita	t Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3) 56
SITE NAME/LOCATION Stream WP-22 Washington-Polo Road SITE NUMBER S-JBL-052324-04 RIVER BASIN 05040001 LENGTH OF STREAM REACH (ft) LAT 40.53142 DATE 05/23/2024 SCORER JBL COMME NOTE: Complete All Items On This Form - Refer to "He STREAM CHANNEL MODIFICATIONS: NONE / NATUR	Phase 2     RIVER CODE DRAINAGE AREA (mi <sup>2</sup> ) LONG <u>-81.04659</u> RIVER MILE NTS Int, eroded channel on ROW. Disturbed from ROW maintenance eadwater Habitat Evaluation Index Field Manual" for Instructions AL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
1.       SUBSTRATE (Estimate percent of every type prese (Max of 32). Add total number of significant substrate type prese (Max of 32). Add total number of significant substrate type prese (Max of 32). Add total number of significant substrate type prese (Max of 32). Add total number of significant substrate type prese (Max of 32). Add total number of significant substrate type prese (Max of 32). Add total number of significant substrate type prese (Max of 32). Add total number of significant substrate type (Max of 32). Add total number of significant substrate substrate type (Max of 32). Add total number of significant substrate substra	mt). Check ONLY two predominant substrate TYPE boxes.       HHEI         ypes found (Max of 8). Final metric score is sum of boxes A & B       PERCENT         SILT [3 pt]       15         LEAF PACK/WOODY DEBRIS[3 pts]       15         CLAY or HARDPAN [0 pt]       10         MUCK [0 pts]       10         ARTIFICIAL [3 pts]       26         ARTIFICIAL [3 pts]       5
Aximum Pool Depth (Measure the maximum pool time of evaluation. Avoid plunge pools from road culver         □       > 30 centimeters [20 pts]         □       > 22.5 - 30 cm [30 pts]         ×       > 10 - 22.5 cm [25 pts]	depth within the 61 meter (200 feet) evaluation reach at the rts or storm water pipes) (Check ONLY one box):       Pool Depth Max = 30         5 cm - 10 cm [15 pts]       > 5 cm [5pts]         NO WATER OR MOIST CHANNEL [0pts]       25         MAXIMUM POOL DEPTH (inches):       5.0
3. BANK FULL WIDTH (Measured as the average of 3 → 4.0 meters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	
COMMENTS Onwm 3tt	AVERAGE BANKFULL WIDTH (feet):
RIPARIAN ZONE AND FLOODPLAIN QUALIT         RIPARIAN WIDTH       FLO         L       R       (Per Bank)       L       R         X       Wide >10m       X       Matt         Moderate 5-10m       X       Imm         None       Imm       Res         None       Fen       Fen         COMMENTS       Fen         Stream Flowing       Subsurface flow with isolated pools (interstitial)         COMMENTS       SINUOSITY (Number of bends per 61 m (200 ft         None       1.0         0.5       X	Y ★ NOTE: River Left (L) and Right (R) as looking downstream★ ODPLAIN QUALITY (Most Predominant per Bank) L R URE Forest, Wetland Delta Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction Ck ONLY one box): Dry channel, isolated pools, no flow (intermittent) Dry channel, no water (ephemeral) Of channel) (Check ONLY one box): D of channel) (Check ONLY on
STREAM GRADIENT ESTIMATE	(2 ft/100 ft) Moderate to Severe X Severe (10 ft/100 ft)

Stream WP-22

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S) UWH Name:Distance from Evaluated Stream	
CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Carroll Township/City: Lee	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): No Date of last precipitation: 5/22/24 Quantity: 0.1	
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): Canopy (% open): 100.0	
Were samples collected for water chemistry? (Y/N): No Lab Sample # or ID (attach results):	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)	
Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain:	
Additional comments/description of pollution impacts:	
BIOLOGICAL OBSERVATIONS (Record all observations below)	
Fish Observed? (Y/N) NO Species observed (if known):	
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):	
Salamanders Observed? (Y/N) No Species observed (if known):	
Aquatic Macroinvertebrates Observed? (X/N) NO Species observed (if known):	
Comments Regarding Biology:	



Stream WP-22



Upstream



Downstream



	Stream WP-23
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	<sub>3)</sub> 54
SITE NAME/LOCATION Stream WP-23 Washington-Polo Road - Phase 2	
SITE NUMBER S-MJA-052224-03 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi	<sup>2</sup> )
LENGTH OF STREAM REACH (ft) LAT _40.52335552200003 LONG81.047114599999999 RIVER MILE	<u> </u>
DATE 05/22/2024 SCORER MJA COMMENTS Perennial stream flowing through wetland in maintained	d t-line ROW.
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for	r Instructions
	OR NO RECOVERY
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & TYPE         Image: Description of the state structure of the struct	B HHEI Metric Points Substrate Max = 40
Bildr Slabs, Boulder, Cobble, Bedrock 5 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	A + B
2. Maximum Pool Depth (Measure the <u>maximum</u> pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from read culverts or storm water pipes) (Check ON! Yone box):	Pool Depth
$\times$ > 30 centimeters <b>[20 pts]</b> 5 cm - 10 cm <b>[15 pts]</b>	
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0pts]	20
	5.0
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): x = 4.0  meters (> 13') [30 nts]	Width
> 3.0 m - 4.0 m (> 9′ 7″ - 13′) [25 pts]         □         ≤ 1.0 m (≤ 3′ 3″) [5 pts]	Max=30
COMMENTS AVERAGE BANKFULL WIDTH (feet): 3.	.5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstre	eam ★
<u>RIPARIAN WIDTH</u> (Der Der Logen Der	
Mature Forest, Wetland Conservation Tills	age al
Narrow <5m Residential, Park, New Field Open Pasture, Ro	ow Crop
None   Fenced Pasture   Mining or Constru	uction
COMMENTS Stream flows through large PEM wetland.	
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       Moist Channel, isolated pools, no flow (interstitial)         Subsurface flow with isolated pools (interstitial)       Dry channel, no water (ephemeral)         COMMENTS       Comments	rmittent)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
$\square None \square 1.0 \square 2.0 \square 3.0 \\ \square 0.5 \square 1.5 \square 2.5 \qquad \square 3.0 \\ \square 2.5 \qquad \square 3.0 \\ \square 3.0$	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate X Moderate (2 ft/100 ft) Moderate to Severe	(10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Distance from Evaluated Stream	
CWH Name: Distance from Evaluated Stream	
EWH Name: Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Carroll Township/City: Lee	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 05/17/2024 Quantity: 0.74	
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>95.0</u>	
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)	
Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain:	
Additional comments/description of pollution impacts:	
BIOLOGICAL OBSERVATIONS (Record all observations below)	
Fish Observed? (Y/N) Yes Species observed (if known):	
Frogs or Tadpoles Observed? (Y/N) Yes Species observed (if known):	
Selemenders Observed? (V(N) No Species observed (if known):	
Aquatic Macroinvertebrates Observed? (Y/N) Species observed (if known):	
Comments Regarding Biology:	



Stream WP-23



Upstream

Downstream



S	tream WP-24
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	49
SITE NAME/LOCATION Stream WP-24 Washington-Polo Road - Phase 2	
SITE NUMBER S-MJA-052224-02 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi <sup>2</sup> )	
LENGTH OF STREAM REACH (ft) LAT <u>40.52206</u> LONG <u>-81.04705</u> RIVER MILE _	
DATE 05/22/2024 SCORER MJA COMMENTS Stream channel begins downslope of t-line structure in ROW. Former ID: S-B	CR-5/23/2018-7
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for In	structions
	R NO RECOVERY
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE       PERCENT         BUDR SLABS [16 pts]       BUDLDER (>256 mm)[16 pts]       SILT [3 pt]       20         BEDROCK [16 pts]       BEDROCK [16 pts]       BIDR SLABS [16 pts]       20         BEDROCK [16 pts]       BEDROCK [16 pts]       BIDR SLABS [16 pts]       20         BEDROCK [16 pts]       BEDROCK [16 pts]       BIDR SLABS [16 pts]       20         BEDROCK [16 pts]       BEDROCK [16 pts]       BIDR SLABS [16 pts]       20         BEDROCK [16 pts]       BEDROCK [16 pts]       BIDR SLABS [16 pts]       20         SAND (<2 mm) [12 pts]	HHEI Metric Points Substrate Max = 40
Bidr Slabs, Boulder, Cobble, Bedrock 15 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	A + B
2. <b>Maximum Pool Depth (</b> <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check <i>ONLY</i> one box):	Pool Depth
> 30 centimeters [20 pts] 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0pts]	25
COMMENTS MAXIMUM POOL DEPTH (inches): 5.0	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width
> 3.0  m - 4.0  m (> 9' 7'' - 13') [25  pts] $ > 1.5  m - 3.0  m (> 4' 8'' - 9' 7'') [20  pts]$	Max=30
COMMENTS AVERAGE BANKFULL WIDTH (feet): 1.5	5
This information <u>must</u> also be completed	
<b>RIPARIAN ZONE AND FLOODPLAIN QUALITY</b> * NOTE: River Left (L) and Right (R) as looking downstrean	<b>1★</b>
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)	
Image: Construction of Construction Construction         Image: Construction Construction	e Crop on
FLOW REGIME (At Time of Evaluation) (Check ONI Yone box):	
<ul> <li>Stream Flowing</li> <li>Subsurface flow with isolated pools (interstitial)</li> <li>COMMENTS_Trickle flow between pools.</li> </ul>	ttent)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe	ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name:
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Lee
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 5/17/24 Quantity: 0.74
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>90.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed2 (X/N) No Species observed (if known):
Aquetic Macroinvertebrates Observed? (Y/N) NO Species observed (if known):





Stream WP-24



Upstream



Downstream



	Stream WP-25
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+	<sub>3)</sub> 30
SITE NAME/LOCATION_Stream WP-25 Washington-Polo Road - Phase 2	
SITE NUMBER	i²)
LENGTH OF STREAM REACH (ft) LAT <u>40.51491</u> LONG <u>-81.04741</u> RIVER MIL	E
DATE 05/22/2024 SCORER MJA COMMENTS Stream flows under grassy ATV crossing and into pon-	d via culvert.
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" fo	r Instructions
	T OR NO RECOVERY
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A 8         TYPE       PERCENT       TYPE         BLDR SLABS [16 pts]       BUDER (>256 mm)[16 pts]       SILT [3 pt]         BEDROCK [16 pts]       Image: score sco	HHEI Metric Points Substrate Max = 40
Bidr Slabs, Boulder, Cobble, Bedrock 10 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	A + B
2. Maximum Pool Depth (Measure the <u>maximum</u> pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] 5 cm - 10 cm [15 pts]	5
> 10 - 22.5 cm [25 pts]     NO WATER OR MOIST CHANNEL [0pts]	
COMMENTS MAXIMUM POOL DEPTH (inches):	.5
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
[ > 3.0  m - 4.0  m (> 9' 7'' - 13') [25  pts ] $ > 1.5  m - 3.0  m (> 4' 8'' - 9' 7'') [20  pts ]$	Max=30
COMMENTS AVERAGE BANKFULL WIDTH (feet):	.5
This information <u>must</u> also be completed	
<b>RIPARIAN ZONE AND FLOODPLAIN QUALITY</b> ★ NOTE: River Left (L) and Right (R) as looking downstreet	eam ★
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)	
L R       L R       L R         Wide >10m       Image: Conservation Till         Moderate 5-10m       Image: Conservation Till         Narrow <5m	age al ow Crop uction
FLOW REGIME (At Time of Evaluation) (Check ONI Yone box)	
Image: Stream Flowing       Image: Stream Flowing       Image: Stream Flowing       Image: Stream Flowing       Moist Channel, isolated pools, no flow (integration of the stream flowing from hillside seep in woods east of ROW         COMMENTS_Stream flowing from hillside seep in woods east of ROW       Image: Stream flowing from hillside seep in woods east of ROW	rmittent)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
□ None □ 1.0 □ 2.0 □ 3.0	
LI U.S LI 1.5 LI 2.5 LI >3	
Flat (0.5 ft/100 ft)       Flat to Moderate       X Moderate (2 ft/100 ft)       Moderate to Severe       Severe	€ (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Lee
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 5/17/24 Quantity: 0.74 Photo-documentation Notes:
Elevated Turbidity? (Y/N):       No       50.0         Were samples collected for water chemistry? (Y/N):       No       Lab Sample # or ID (attach results):         Field Measures: Temp (°C)       Dissolved Oxygen (mg/l)       pH (S.U.)       Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) NO       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) NO       Species observed (if known):         Salamanders Observed? (Y/N) NO       Species observed (if known):         Aquatic Macroinvertebrates Observed? (Y/N) NO       Species observed (if known):
Comments Regarding Biology:



Stream WP-25





Downstream



Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	9
SITE NAME/LOCATION Stream WP-26       Washington-Polo Road - Phase 2         SITE NUMBER       S-JBL-052224-03       RIVER BASIN       05040001       RIVER CODE DRAINAGE AREA (mi²)         LENGTH OF STREAM REACH (ft)       LAT       40.50927194700006       LONG       -81.04763614699993       RIVER MILE         DATE       05/22/2024       SCORER       JBL       COMMENTS       Eph stream. ROW maintenance impacts         NOTE:       Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instru         STREAM CHANNEL MODIFICATIONS:       NONE / NATURAL CHANNEL       RECOVERED       Image: Recovering image: Recent or No	
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       PERCENT       TYPE       PERCENT         BLDR SLABS [16 pts]       BOULDER (>256 mm)[16 pts]       SILT [3 pt]       20         BEDROCK [16 pts]       BEDROCK [16 pts]       BEDROCK [16 pts]       15         COBBLE (65-256 mm)[12 pts]       30       CLAY or HARDPAN [0 pt]       15         SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40 19 A + B
2.       Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):       P         □       > 30 centimeters [20 pts]       □       5 cm - 10 cm [15 pts]       P         □       > 22.5 - 30 cm [30 pts]       □       5 cm [5pts]       P         □       > 10 - 22.5 cm [25 pts]       □       NO WATER OR MOIST CHANNEL [0pts]       P         COMMENTS	ool Depth Max = 30 5 Bankfull
$ \begin{array}{ c c c c c c } &> 4.0 \text{ meters } (> 13') \ [30 \text{ pts}] & & & & & & \\ &> 3.0 \text{ m} - 4.0 \text{ m} (> 9' \ 7'' - 13') \ [25 \text{ pts}] & & & & & \\ &> 1.5 \text{ m} - 3.0 \text{ m} (> 4' \ 8'' - 9' \ 7'') \ [20 \text{ pts}] & & & & \\ \hline & & & & \\ \hline \hline \hline \\ \hline & & & \\ \hline \hline & & & \\ \hline \hline \hline \\ \hline & & & \\ \hline \hline \hline \\ \hline \hline & & & \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline$	Width Max=30 5
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *         RIPARIAN WIDTH       FLOODPLAIN QUALITY (Most Predominant per Bank)         L       R       (Per Bank)       L       R         Image: Stress of the	
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       X         Subsurface flow with isolated pools (interstitial)       Dry channel, isolated pools, no flow (intermittent)         COMMENTS       Recent rain today         SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0         X       0.5         X       0.5 <td></td>	

Stream WP-26

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes IN QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page: NRCS Soil Map Stream Order:         County:       Carroll       Township/City: Lee
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 05/22/2024 Quantity: 0.01
Elevated Turbidity? (Y/N): Canopy (% open): 90.0 Were samples collected for water chemistry? (Y/N): NO Lab Sample # or ID (attach results):
Field Measures: Temp (°C)       Dissolved Oxygen (mg/l)       pH (S.U.)       Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N)       Yes       If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) NO       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) NO       Species observed (if known):         Salamanders Observed? (Y/N) NO       Species observed (if known):         Aquatic Macroinvertebrates Observed? (Y/N) NO       Species observed (if known):         Comments Regarding Biology:

FLOW	S-JOL-OS, D.H.O. 3 eph. HEt often 3/24/1 1 deft RY defent
	Pour da Folo Bourd & M. Bon did steam 4
May 2020	

Stream WP-26



Upstream



Downstream



WP-27

St	eam WP-27
Headwater Habitat Evaluation Index Field Form	33
HHEI Score (sum of metrics 1+2+3)	00
SITE NAME/LOCATION Stream WP-27 Washington-Polo Road - Phase 2	
SITE NUMBER <u>S-JBL-052224-04</u> RIVER BASIN <u>05040001</u> RIVER CODE DRAINAGE AREA (mi <sup>2</sup> )	
DATE 05/22/2024 SCORER JBL COMMENTS Impacts to riparian veg for ROW maintenance	
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for In	structions
	NO RECOVERT
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes.	HHEI
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]       X       SILT [3 pt]       60         BOULDER (>256 mm)[16 pts]       LEAF PACK/WOODY DEBRIS[3 pts]       15	Points
BEDROCK [16 pts] FINE DETRITUS [3 pts]	Substrate Max = 40
GRAVEL (2-64 mm) [9 pts]       5       MUCK [0 pts]	
□ × SAND (<2 mm) [6 pts]	13
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth ( <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check <i>QNLY</i> one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] 5 cm - 10 cm [15 pts]	
	5
COMMENTS MAXIMUM POOL DEPTH (inches): 1.0	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
$ \begin{array}{ c c c c c c } > 4.0 \text{ meters } (> 13') \ \textbf{[30 pts]} \\ > 3.0 \text{ m} - 4.0 \text{ m} (> 9' 7'' - 13') \ \textbf{[25 pts]} \\ \end{array} \begin{array}{ c c c c c c c } \times & > 1.0 \text{ m} - 1.5 \text{ m} (> 3' 3'' - 4' 8'') \ \textbf{[15 pts]} \\ \le 1.0 \text{ m} (\le 3' 3'') \ \textbf{[5 pts]} \\ \end{array} $	Max=30
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	15
COMMENTS OHWM 2 ft AVERAGE BANKFULL WIDTH (feet): 4.0	
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream	*
L R (Per Bank) L R L R	
Wide >10m Mature Forest, Wetland Conservation Tillage	
Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field       Immature Porest, Shrub or Old Field         Immature	Crop
None         Fenced Pasture         Mining or Construction	'n
COMMENTS	
Stream Flowing X Stream Flowing X Moist Channel, isolated pools, no flow (intermit	tent)
Subsurface flow with isolated pools (interstitial)  COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft)       Flat to Moderate       Moderate (2 ft/100 ft)       Moderate to Severe       X Severe (10	t/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Carrollton       NRCS Soil Map Page:NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Lee
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 5/22/24 Quantity: 0.1 Photo-documentation Notes:
Elevated Turbidity? (Y/N):       No       Canopy (% open):       60.0         Were samples collected for water chemistry? (Y/N):       No       Lab Sample # or ID (attach results):         Eield Measures: Temp (°C)       Dissolved Oxygen (mg/l)       pH (S U)       Conductivity (umbos/cm)
Is the sampling reach representative of the stream (Y/N) <u>No</u> If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N)       No       Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) Species observed (if known): Comments Regarding Biology:



Stream WP-27



Upstream



Downstream



					Strea	m WP-28
Chio Environmental Protection Agency	Headwate	er Habitat Ev	valuation Inde HHEI Score (s	ex Field For sum of metrics	rm s 1+2+3)	59
SITE NAME/LOCATIO	ON Stream WP-28 Washin	gton-Polo Road - Phas	se 2			
SITE NUMBER S-JBL-C	<sup>052224-05</sup> RIVER BASIN	5040001	RIVER CODE	DRAINAGE A	AREA (mi²) <u>0.6</u>	
LENGTH OF STREAM	/I REACH (ft)	LAT 40.50245	LONG <u>-81.0479</u>	98 RI	VER MILE	
DATE 05/22/2024	SCORER JBL	COMMENTS /	Adjacent to wetland. Rec	ent earthwork by lan	downer south o	fstream
NOTE: Complete All	Items On This Form	- Refer to "Headwa	ter Habitat Evaluatio	n Index Field Ma	nual" for Inst	ructions
STREAM CHANNEL	MODIFICATIONS:	NONE / NATURAL CHA			RECENT OR NO	O RECOVERY
1. SUBSTRATE (Max of 32). A TYPE BLDR SL/ BOULDEF BEDROCI BEDROCI COBBLE X GRAVEL X SAND (<2 Total of P	(Estimate percent of evolution of signification of significa	Pery type present). Ch       cant substrate types fo       ERCENT     TYPE       Image: Strate type present types for       Image: Strate type present type type pr	eck <i>ONL</i> Y <u>two</u> predomin und (Max of 8). Final me SILT <b>[3 pt]</b> LEAF PACK/WOODY FINE DETRITUS <b>[3 pt</b> CLAY or HARDPAN <b>[</b> 0 MUCK <b>[0 pts]</b> ARTIFICIAL <b>[3 pts]</b>	ant substrate <i>TYPE</i> tric score is sum of b DEBRIS[3 pts] ts] 0 pt]	boxes. boxes A & B E <b>RCENT</b>	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Bou	Ider, Cobble, Bedrock 15 TPREDOMINATE SUBS	5 (A) STRATE TYPES: 15	TOTAL NUMBER O	OF SUBSTRATE TYP	(B) PES: 4	A + B
2. Maximum Po time of evalua	ol Depth ( <i>Measure the <u>r</u>ation. Avoid plunge pools</i>	<u>maximum</u> pool depth from road culverts or s	within the 61 meter (20) torm water pipes) (Ch	0 feet) evaluation rean neck ONLY one box)	ach at the	Pool Depth Max = 30
× > 30 centimete	ers [20 pts]	E E	5 cm - 10 cm <b>[15 pt</b>	s]		
> 22.5 - 30 cm	[30 pts] [25 pts]		<pre>&lt; 5 cm [5pts] NO WATER OR MOI</pre>	IST CHANNEL [0pts		20
COMMENTS			MAXIMUM	I POOL DEPTH (inc	hes): 12.0	
3 BANK FULL	WIDTH (Measured as th	e average of 3 - 4 me	esurements) (Check	ONI Yone box):		Bankfull
> 4.0 meters (:	> 13') [30 pts]		> 1.0 m - 1.5 m (> 3'	3" - 4' 8") <b>[15 pts]</b>		Width
> 3.0  m - 4.0  m	n (> 9' 7"- 13') <b>[25 pts]</b>		≤ 1.0 m (≤ 3' 3") <b>[5 p</b> t	ts]		Max=30
COMMENTS	OHWM 5		AVERAGE B	ANKFULL WIDTH (1	<sub>feet):</sub> 7.0	20
		This information	must also be complete	ed		
RIPAR	IAN ZONE AND FLOOD	PLAIN QUALITY 🔺	NOTE: River Left (L) and	Right (R) as looking	downstream ★	
<u>RIP</u>	ARIAN WIDTH	FLOODPL4	AIN QUALITY (Most Pred	lominant per Bank)		
L R ( <sup>F</sup> ☐ ☐ Wic X X Moo ☐ Nar ☐ Nor COMM	'er Bank) le >10m Jerate 5-10m row <5m ne /ENTS	L R Mature Fo X Immature I Residentia Fenced Pa	rest, Wetland Forest, Shrub or Old Field I, Park, New Field Isture	L R Conserv d D Urban o D Open P Mining o	vation Tillage rr Industrial asture, Row Cro or Construction	qq
FLOW	REGIME (At Time of Eva	aluation) (Check ONL	Yone box):			
∑ Stream Subsur COMM	Flowing face flow with isolated po //ENTS	ols (interstitial)	Moist Channe	el, isolated pools, no no water (ephemeral	flow (intermitter	nt)
SINUC	SITY (Number of bends	per 61 m (200 ft) of cha	annel) (Check ONLY on	le box):		-
<ul><li>☐ None</li><li>☐ 0.5</li></ul>		1.0 1.5	□ 2.0 × 2.5	3.0 3.0		
STREAM GR		<b>—</b>	<b>—</b>		7 -	
Flat (0.5 ft/100 ft)	Flat to Moderate	X Moderate (2 ft/100	ft) Moderate to	Severe	Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Lee
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 5/22/24 Quantity: 0.01
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>90.0</u>
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) <u>NO</u> If not, explain:
Sampled reach is in a cleared transmission line ROW, but the stream continues through forest
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) No Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) NO Species observed (if known):
Aquetic Magrainy at a bran (d2 (V/h) NO spacios abcan/od (if known):
Comments Regarding Biology:





Stream WP-28



Upstream



Downstream



Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	28
SITE NAME/LOCATION       Stream WP-29       Washington-Polo Road - Phase 2         SITE NUMBER       S-JBL-052224-06       RIVER BASIN       05040001       RIVER CODE	Excavated tructions
1.       SUBSTRATE (Estimate percent of every type present). Check ONL Y two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       PERCENT       TYPE         BLDR SLABS [16 pts]       PERCENT       SILT [3 pt]         BOULDER (>256 mm)[16 pts]       SILT [3 pt]       90         BEDROCK [16 pts]       SILT [3 pt]       90         COBBLE (65-256 mm)[12 pts]       CLAY or HARDPAN [0 pt]       90         GRAVEL (2-64 mm) [9 pts]       MUCK [0 pts]       10         SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40 8 A + B
2.       Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):         30 centimeters [20 pts]       \$5 cm - 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       \$5 cm [5pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0pts]         MAXIMUM POOL DEPTH (inches): 3.0	Pool Depth Max = 30
3.BANK FULL WIDTH (Measured as the average of 3 - 4 measurements)(Check ONLY one box): $\bigcirc$ > 4.0 meters (> 13') [30 pts] $>$ 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] $\bigcirc$ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] $\checkmark$ $\leq$ 1.0 m ( $\leq$ 3' 3") [5 pts] $\bigcirc$ > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] $\checkmark$ $\leq$ 1.0 m ( $\leq$ 3' 3") [5 pts]AVERAGE BANKEULL WIDTH (feet): 3.0	Bankfull Width Max=30
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *         RIPARIAN WIDTH       FLOODPLAIN QUALITY (Most Predominant per Bank)         L       R         H       (Per Bank)         H       FLOODPLAIN QUALITY (Most Predominant per Bank)         L       R         H       (Per Bank)         H       H         H       (Per Bank)         H       H         H	rop 
Flat (0.5 ft/100 ft) Flat to Moderate X Moderate (2 ft/100 ft) Moderate to Severe (10 ft/	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes X No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S) UWWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name:     Distance from Evaluated Stream     Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Carrollton NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Lee
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 5/22/24 Quantity: 0.01
Photo-documentation Notes:
Elevated Turbidity? (Y/N): No Canopy (% open): 100.0
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) <u>Yes</u> If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) NO Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) NO Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments regarding Diology.

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

	m	SJBL-05 Kov	2224-06	↓₽_	T
FLOW	1	KN Yard	PEM	Souther of	
	T.	flow	Kow	The second secon	
	of	1 4	Rite in the Ren.	7154	

Excavated culvert output flowing into a PEM wetland and losing definition

Stream WP-29



Downstream



Upstream



						Stre	am WP-31
Chio Environmental Protection Agency	Headwat	ter Habita	at Eval	uation Inde HHEI Score (	ex Field F (sum of met	<sup>F</sup> OrM rics 1+2+3)	27
SITE NAME/LOCATIO	ON Stream WP-31 Wash	ington-Polo Road	l - Phase 2				
SITE NUMBER S-JBL-	052224-01 RIVER BASIN	05040001	RI\	/ER CODE	DRAINA	GE AREA (mi²)	
LENGTH OF STREAD	VI REACH (ft)	LAT <u>40.48688</u>	496300008	LONG <u>-81.048</u>	3333469999999	RIVER MILE	
DATE 05/22/2024	_ SCORER <u>JBL</u>		NTS Ephe	meral stream along	g road. Culverted	under access	
NOTE: Complete Al	I Items On This Forn	n - Refer to "H	eadwater l	Habitat Evaluatio	on Index Field	Manual" for Ins	tructions
STREAM CHANNEL	MODIFICATIONS:		AL CHANNE				NO RECOVERY
1. SUBSTRATE (Max of 32). / TYPE BLDR SL BOULDE BEDROC BEDROC COBBLE X GRAVEL	E (Estimate percent of e Add total number of signing BABS [16 pts] R (>256 mm)[16 pts] K [16 pts] (65-256 mm)[12 pts]	every type prese ficant substrate t PERCENT	nt). Check ( ypes found ) YPE X SI LE LE FI C CI	ONLY <u>two</u> predomin (Max of 8). Final mo LT <b>[3 pt]</b> EAF PACK/WOOD` NE DETRITUS <b>[3 p</b> LAY or HARDPAN UCK <b>[0 pts]</b>	nant substrate <i>T</i> etric score is sum Y DEBRIS <b>[3 pts]</b> ots] [0 pt]	YPE boxes. of boxes A & B <u>PERCENT</u> <u>30</u> <u>10</u>	HHEI Metric Points Substrate Max = 40
Total of P Bldr Slabs, Bou	2 mm) [6 pts]	15(/		RTIFICIAL [3 pts]		(B) 5	17 A + B
SCORE OF TWO MOS	ST PREDOMINATE SUE	STRATE TYPE	S: 12	TOTAL NUMBER	OF SUBSTRATE		
2.         Maximum Potitime of evaluation           □         > 30 centimeter           □         > 22.5 - 30 cm           □         > 10 - 22.5 cm	bol Depth (Measure the ation. Avoid plunge pools ers [20 pts] 1 [30 pts] 1 [25 pts]	m <u>aximum</u> pool s from road culve	depth with       rts or storm       X       X	in the 61 meter (20 water pipes) (C 5 cm - 10 cm [15 p 5 cm [5pts] NO WATER OR MC	00 feet) evaluatio Check <i>ONLY</i> one ts] DIST CHANNEL [	on reach at the box):	Pool Depth Max = 30
COMMENTS				MAXIMUI	M POOL DEPTH	(inches): 1.0	
3. BANK FULL	WIDTH (Measured as t	he average of 3	- 4 measure	ements) (Check	ONLY one box)	:	Bankfull
→ 4.0 meters ( > 3.0 m - 4.0 r > 1.5 m - 3.0 r	> 13') <b>[30 pts]</b> n (> 9' 7"- 13') <b>[25 pts]</b> n (> 4' 8" - 9' 7") <b>[20 pts</b> ]	I	× <	• 1.0 m - 1.5 m (> 3 ≤ 1.0 m (≤ 3' 3") <b>[5 p</b>	' 3" - 4' 8")[15 pt ots]	s]	Width Max=30
COMMENTS	2ft OHWM			AVERAGE E	BANKFULL WID	TH (feet): 2.0	
		This infor	mation <u>mus</u>	<u>st</u> also be complet	ted		
RIPA	RIAN ZONE AND FLOO	DPLAIN QUALIT	Y 🛧 NOTI	E: River Left (L) and	d Right (R) as loc	oking downstream	r
<u>RIP</u>	<u>ARIAN WIDTH</u> Per Bank)	FLO	ODPLAIN C	QUALITY (Most Pre	dominant per Ba	nk)	
L K Win □ □ Mo × □ Na □ × No COM	de >10m derate 5-10m rrow <5m ne MENTS	☐ Mai	ture Forest, nature Fores sidential, Pa nced Pasture	Wetland st, Shrub or Old Fie rk, New Field e	eld X Ort	nservation Tillage oan or Industrial en Pasture, Row C ning or Constructior	rop 1
FLOW	REGIME (At Time of E	valuation) (Che	ck ONLY or	ne box):			_
Stream Subsur COM	n Flowing rface flow with isolated p MENTS	ools (interstitial)		<ul> <li>Moist Chann</li> <li>Dry channel,</li> </ul>	el, isolated pools no water (epher	s, no flow (intermitte neral)	ent)
SINU	<b>DSITY</b> (Number of bends	s per 61 m (200 f	t) of channe	I) (Check ONLY o	ne box):		_
× None 0.5		1.0 1.5		2.0 2.5		3.0 >3	
			(2 #/400 #)	Modoroto t	o Severa		100 #)
μ ι ιαι (υ.ο π/100 π)			(∠ IV IUU Π)				100 II)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         USGS Quadrangle Name:       Scio       NRCS Soil Map Page: NRCS Soil Map Stream Order:         County:       Carroll       Township/City:       Perry
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: 05/22/2024 Quantity: 0.01
Photo-documentation Notes:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)         Is the sampling reach representative of the stream (Y/N) Yes         If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N) NO       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N) NO       Species observed (if known):         Salamanders Observed? (Y/N) NO       Species observed (if known):         Aquatic Macroinvertebrates Observed? (Y/N) NO       Species observed (if known):

	S-JBL-052224-01	13
FLOW	3 4 4 4	Mat 6
	(P) culvert Ja	t cr
	Flow	53
May 2020	B NJ NJ	t



Upstream



Downstream



Substrate

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)
SITE NAME/LOCATION Stream WP-32 Washington-Polo Road - Phase 2 SITE NUMBER S-JBL-052124-02 RIVER BASIN 05040001 RIVE LENGTH OF STREAM REACH (ft) LAT 40.47468882900006 DATE 05/21/2024 SCORER JBL COMMENTS Culver NOTE: Complete All Items On This Form - Refer to "Headwater H STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL	ER CODE DRAINAGE AREA (mi <sup>2</sup> ) _ LONG <u>-81.04945103199998</u> RIVER MILE rt, old Stream WP-33 labitat Evaluation Index Field Manual" for Instructions
1.       SUBSTRATE (Estimate percent of every type present). Check C (Max of 32). Add total number of significant substrate types found (I         TYPE       BLDR SLABS [16 pts]         BUDLDER (>256 mm) [16 pts]       BEDROCK [16 pts]         BEDROCK [16 pts]       SIL         COBBLE (65-256 mm) [12 pts]       30         GRAVEL (2-64 mm) [9 pts]       20         X       SAND (<2 mm) [6 pts]	DNLY two predominant substrate TYPE boxes.         Max of 8). Final metric score is sum of boxes A & B         PERCENT         T [3 pt]         AF PACK/WOODY DEBRIS [3 pts]         NE DETRITUS [3 pts]         AY or HARDPAN [0 pt]         JCK [0 pts]         TIFICIAL [3 pts]         (B)         6
2.       Maximum Pool Depth (Measure the maximum pool depth within time of evaluation. Avoid plunge pools from road culverts or storm v         □       > 30 centimeters [20 pts]       □       5         □       > 22.5 - 30 cm [30 pts]       □       <	m the 61 meter (200 feet) evaluation reach at the vater pipes) (Check ONLY one box):       Pool Depth Max = 30         c cm - 10 cm [15 pts]       5 cm [5pts]         O WATER OR MOIST CHANNEL [0pts]       6.0
3.       BANK FULL WIDTH (Measured as the average of 3 - 4 measured as the average of 3 - 4	ments)       (Check ONLY one box):       Bankfull         1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]       Width         1.0 m (≤ 3' 3")[5 pts]       20
COMMENTS Ohwm 5	_ AVERAGE BANKFULL WIDTH (feet):
Inits information <u>music</u> RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE         RIPARIAN WIDTH       FLOODPLAIN QUALITY       ★ NOTE         L       R       (Per Bank)       L       R         Imature Porest, V       Moderate 5-10m       Mature Forest, V         Moderate 5-10m       X       Immature Forest, V         Moderate 5-10m       X       Immature Forest, V         None       Besidential, Paril         None       Besidential, Paril         Residential, Paril       None         COMMENTS       FLOW REGIME (At Time of Evaluation)         Stream Flowing       []         Subsurface flow with isolated pools (interstitial)       []         COMMENTS       []         SINUOSITY (Number of bends per 61 m (200 ft) of channel)       []         None       1.0       []         0.5       1.5       []         STREAM GRADIENT ESTIMATE       []	is is boomproted          : River Left (L) and Right (R) as looking downstream ★         UALITY (Most Predominant per Bank)         L       R         Wetland       □         t, Shrub or Old Field       □         Urban or Industrial       Open Pasture, Row Crop         Mining or Construction         e box):       Moist Channel, isolated pools, no flow (intermittent)         Dry channel, no water (ephemeral)         (Check ONLY one box):         2.0       3.0         2.5       >3

Stream WP-32

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Scio NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Perry
MISCELLANEOUS
Base Flow Conditions? (Y/N): No Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): Canopy (% open): 100.0
Were samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS
(Record all observations below)
Fish Observed? (Y/N) Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (Y/N) NO Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):
Comments Regarding Biology:



Stream WP-32



Upstream



Downstream



Stream	WP-33
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<b>Ghio</b> Heady	water Habitat Evaluation Index Field Form	VP-33
Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	7
SITE NAME/LOCATION Stream WP-33 V SITE NUMBER S-JBL-052124-03 RIVER BA LENGTH OF STREAM REACH (ft) DATE 05/21/2024 SCORER JBL NOTE: Complete All Items On This F STREAM CHANNEL MODIFICATION	Washington-Polo Road - Phase 2         ASIN       05040001       RIVER CODE       DRAINAGE AREA (mi²)         LAT       40.47140       LONG       -81.04958       RIVER MILE         COMMENTS       Old culvert washed out. Adjacent to PEM wetland         Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instruc         NS:       NONE / NATURAL CHANNEL       RECOVERED       RECOVERING       RECENT OR NO RE	:tions
1.       SUBSTRATE (Estimate percent (Max of 32). Add total number of         TYPE       □         □       BLDR SLABS [16 pts]         □       BOULDER (>256 mm)[16 pts]         □       BEDROCK [16 pts]         □       COBBLE (65-256 mm)[12 pts]         ×       □         SAND (<2 mm) [6 pts]	Int of every type present). Check ONLY two predominant substrate TYPE boxes.       Image: Substrate types found (Max of 8). Final metric score is sum of boxes A & B       Image: Substrate types found (Max of 8). Final metric score is sum of boxes A & B         Image: PERCENT       TYPE       PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B         Image: PERCENT       TYPE       PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B         Image: PERCENT       TYPE       PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B         Image: PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B       Percent         Image: PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B       Percent         Image: PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B       Percent         Image: PERCENT       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B         Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B       Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B         Image: Substrate type found (Max of 8). Final metric score is sum of boxes A & B <t< td=""><td>IHEI letric oints Jbstrate lax = 40 7 A + B</td></t<>	IHEI letric oints Jbstrate lax = 40 7 A + B
2.       Maximum Pool Depth (Measure time of evaluation. Avoid plunge         □       > 30 centimeters [20 pts]         □       > 22.5 - 30 cm [30 pts]         ×       > 10 - 22.5 cm [25 pts]         COMMENTS	re the maximum pool depth within the 61 meter (200 feet) evaluation reach at the pools from road culverts or storm water pipes)       (Check ONLY one box):         S cm - 10 cm [15 pts]       < 5 cm [5pts]	ol Depth lax = 30 5
3.         BANK FULL WIDTH (Measured           > 4.0 meters (> 13') [30 pts]           > 3.0 m - 4.0 m (> 9' 7"- 13') [25 p           > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20]	d as the average of 3 - 4 measurements) (Check ONLY one box): pts] $[X] \le 1.0 \text{ m} - 1.5 \text{ m} (> 3' 3" - 4' 8")[15 \text{ pts}]$ $[X] \le 1.0 \text{ m} (\le 3' 3")[5 \text{ pts}]$	ankfull Width Iax=30
COMMENTS 2 ft ohwm	AVERAGE BANKFULL WIDTH (feet): 3.0	
RIPARIAN ZONE AND F	This information must also be completed FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *	
R       RIPARIAN WIDTH         L       R       (Per Bank)         □       □       Wide >10m         □       □       Moderate 5-10m         ☑       X       Narrow <5m	FLOODPLAIN QUALITY       (Most Predominant per Bank)         L R       L R         X       Mature Forest, Wetland       Conservation Tillage         Immature Forest, Shrub or Old Field       Urban or Industrial         Residential, Park, New Field       Open Pasture, Row Crop         Fenced Pasture       Mining or Construction	
FLOW REGIME (At Time Stream Flowing Subsurface flow with isolat COMMENTS	e of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (intermittent) ated pools (interstitial) Dry channel, no water (ephemeral) bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	
STREAM GRADIENT ESTIMATI	TE srate X Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)	)





Stream WP-33



Upstream



Downstream



S	tream WP-34		
Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	61		
SITE NAME/LOCATION Stream WP-34 Washington-Polo Road - Phase 2			
SITE NUMBER S-JBL-052124-04 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²)			
LENGTH OF STREAM REACH (ft) LAT <u>40.46722</u> LONG <u>-81.04929</u> RIVER MILE			
DATE 05/21/2024 SCORER JBL COMMENTS Severly eroded channel. Drain tiles. ROW maintenance dis	turbaances		
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for In	structions		
	K NO RECOVERT		
1.       SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE         BUDR SLABS [16 pts]       BUDLDER (>256 mm)[16 pts]       SILT [3 pt]       15         BEDROCK [16 pts]       30       CLAY or HARDPAN [0 pt]       10         X       GRAVEL (2-64 mm) [9 pts]       35       MUCK [0 pts]       10         X       SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40 26		
Bidr Slabs, Boulder, Cobble, Bedrock <u>30</u> (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 5	A + B		
2. <b>Maximum Pool Depth (</b> <i>Measure the <u>maximum</u> pool depth within the 61 meter (200 feet)</i> evaluation reach at the time of evaluation. Avoid plugge pools from road culverts or storm water pipes) (Check <i>ONI</i> X one box):	Pool Depth		
S centimeters [20 pts] S cm - 10 cm [15 pts]			
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0pts]	15		
	Damlefull		
= 4.0  meters  (> 13')  [30 pts]	Width		
$ = 3.0 \text{ m} - 4.0 \text{ m} (> 9' 7" - 13') [25 \text{ pts}] \\ = 4.0 \text{ m} (\le 3' 3") [5 \text{ pts}] \\ = 4.0 \text{ m} (\le 3' 3") [5 \text{ pts}] $	Max=30		
×         > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]           COMMENTS Ohwm 6         AVERAGE BANKFULL WIDTH (feet):         9.0	20		
This information must also be completed			
<b>RIPARIAN ZONE AND FLOODPLAIN QUALITY ★</b> NOTE: River Left (L) and Right (R) as looking downstream	•		
RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank)			
L R (Per Bank) L R L R			
Wide >10m       Mature Forest, Wetland       Conservation Tillage         Moderate 5-10m       Immature Forest, Shrub or Old Field       Urban or Industrial         Narrow <5m	Crop on		
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):			
<ul> <li>Stream Flowing</li> <li>Subsurface flow with isolated pools (interstitial)</li> <li>COMMENTS</li> </ul>			
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):			
□ None □ 1.0 □ 2.0 □ 3.0			
STREAM GRADIENT ESTIMATE         Flat (0.5 ft/100 ft)         Flat to Moderate         Moderate (2 ft/100 ft)         Moderate to Severe         X         Severe (10	ft/100 ft)		

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):		
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)		
DOWNSTREAM DESIGNATED USE(S)         WWH Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream		
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.         JSGS Quadrangle Name: Scio         NRCS Soil Map Page: NRCS Soil Map Stream Order: County: Carroll         Township/City: Perry		
MISCELLANEOUS Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:		
Elevated Turbidity? (Y/N): <u>No</u> Canopy (% open): <u>100.0</u> Vere samples collected for water chemistry? (Y/N): <u>No</u> Lab Sample # or ID (attach results): Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)		
s the sampling reach representative of the stream (Y/N) Yes If not, explain:		
Additional comments/description of pollution impacts:		
BIOLOGICAL OBSERVATIONS (Record all observations below)         Fish Observed? (Y/N)       No       Species observed (if known):         Frogs or Tadpoles Observed? (Y/N)       No       Species observed (if known):         Galamanders Observed? (Y/N)       No       Species observed (if known):         Aquatic Macroinvertebrates Observed? (Y/N)       No       Species observed (if known):		




Upstream



Downstream



Substrate

Stream	WP-35
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Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)	53
SITE NAME/LOCATION_Stream WP-35   Washington-Polo Road - Phase 2     SITE NUMBER   S-JBL-052124-01   RIVER BASIN_05040001   RIVER CODE	tructions
1.   SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B     TYPE   PERCENT   TYPE     BLDR SLABS [16 pts]   BUDR SLABS [16 pts]   10     BOULDER (>256 mm)[16 pts]   SILT [3 pt]   10     BEDROCK [16 pts]   30   CLAY or HARDPAN [0 pt]   15     GRAVEL (2-64 mm) [9 pts]   5   MUCK [0 pts]   10     X   SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40 23
Bidr Slabs, Boulder, Cobble, Bedrock 30   (A)   (B)   (B)     SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:   18   TOTAL NUMBER OF SUBSTRATE TYPES:   5     2.   Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes)   (Check ONLY one box):   5     > 30 centimeters [20 pts]   5 cm - 10 cm [15 pts]   5 cm [5pts]     > 22.5 - 30 cm [30 pts]   NO WATER OR MOIST CHANNEL [0pts]	A + B Pool Depth Max = 30 25
COMMENTS MAXIMUM POOL DEPTH (inches): 8.0	Bankfull
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Width Max=30
COMMENTS OHWM 2 ft AVERAGE BANKFULL WIDTH (feet): 3.0	
This information must also be completed     RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream *     RIPARIAN WIDTH   FLOODPLAIN QUALITY   (Most Predominant per Bank)   R     L   R   (Per Bank)   L   R   L   R     Image: State of the state	rop
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):     Stream Flowing   Moist Channel, isolated pools, no flow (intermitted Dry channel, no water (ephemeral)     COMMENTS   SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):     None   1.0     2.0   3.0     0.5   1.5	ent) 
□ 0.5 □ 1.5 □ 2.5 □ >3   STREAM GRADIENT ESTIMATE   □ Flat (0.5 ft/100 ft) □ Flat to Moderate □ Moderate (2 ft/100 ft) □ Moderate to Severe □ Severe (10 ft/	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Scio NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Carroll Township/City: Perry
MISCELLANEOUS
Base Flow Conditions? (Y/N): Yes Date of last precipitation: Quantity:
Photo-documentation Notes:
ElevatedTurbidity?(Y/N): <u>No</u> Canopy (% open): <u>100.0</u>
Were samples collected for water chemistry? (Y/N): No Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:
Additional comments/description of pollution impacts:
BIOLOGICAL OBSERVATIONS (Record all observations below)
Fish Observed? (Y/N) NO Species observed (if known):
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if known):
Salamanders Observed? (V/N) No Species observed (if known):
Aquatic macroinvertebrates Observed ? (Y/N)
Comments Regarding Biology:

#### DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





Stream WP-35



Upstream



Downstream



Appendix F Jacobs Open Water/Pond Data Forms

#### P-JFW-050224-01

POND DATA SHEET					
FEATURE ID Pond WP-01		Associated Features:			
SURVEY TYPE: Wetland and wa	aterbodies delinea	ition			
Date: 05/02/2024	CLIENT/PROJECT NAME:	FirstEnergy Washington-Polo Road - Phase			
INVESTIGATORS: JFW		Route:			
STATE/COUNTY: OH	Carroll	IS THIS A MAPPED NWI FEATURE?: NO			
		WATERBODY C	HARACTERIS	TICS	
WATERBODY TYPE:	Pond				
AVG. DEPTH:	6 ft				
AVG. WIDTH (WATER SURFACE):	60 ft				
APPROXIMATE SIZE:	0.13 acres				
		QUALITATIVE		S	
AVERAGE WATER APPEARANCE:	Turbid brown				
PRIMARY SUBSTRATE (IF OBSERVED):	Silt				
POTENTIAL HABITAT FOR:	Frogs, fish, birds				
SURROUNDING LAND USE:	Old field and forest				
WETLAND FRINGE (IF PRESENT):	No				
Сомментя					
Culverts to northwest and southeast. Stream flowing from culverts on southeast side					



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NW

POND DATA SHEET					
FEATURE ID Pond WP-02		Associated Features:			
SURVEY TYPE: Wetland and wa	aterbodies delinea	tion			
Date: 05/21/2024	CLIENT/PROJECT NAME:	FirstEner	gу	Washington-Po	olo Road - Phase 2
INVESTIGATORS: MJA		ROUTE:			
STATE/COUNTY: OH	Carroll	·	IS THIS A MAP	PED NWI FEATURE?: YES	PUBGx
		WATERBODY CH	IARACTERIS	TICS	
WATERBODY TYPE:	Artificial pond				
AVG. DEPTH:	>3 ft				
Avg. WIDTH (WATER SURFACE):	90 ft				
APPROXIMATE SIZE:	0.09 acre				
		QUALITATIVE		S	
AVERAGE WATER APPEARANCE:	Murky brown				
PRIMARY SUBSTRATE (IF OBSERVED):	Silt, muck				
POTENTIAL HABITAT FOR:	Fish (observed), ar	nphibians, wate	erfowl		
SURROUNDING LAND USE:	Residential, forest				
WETLAND FRINGE (IF PRESENT):	None				
Сомментя					
Artificial residential pon	nd. Overflow flows	s into stream	to the we	est via culvert.	

Pond WP-02

P-JFW-050224-01



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Е



Substrate

POND DATA SHEET					
FEATURE ID Pond WP-03		ASSOCIATED FEATURES:			
SURVEY TYPE: Wetland and w	aterbodies delinea	tion			
Date: 05/02/2024	CLIENT/PROJECT NAME:	FirstEner	·gy	Washington-Pol	lo Road - Phase 2
INVESTIGATORS: JFW		ROUTE:			
STATE/COUNTY: OH	Carroll		IS THIS A MAP	PPED NWI FEATURE?: YES	PUBGx
		WATERBODY C	HARACTERIS	TICS	
WATERBODY TYPE:	Pond				
AVG. DEPTH:	10 ft				
AVG. WIDTH (WATER SURFACE):	225 ft				
APPROXIMATE SIZE:	2.54 acres				
		QUALITATIVI		ES	
AVERAGE WATER APPEARANCE:	Brown				
PRIMARY SUBSTRATE (IF OBSERVED):	Silt				
POTENTIAL HABITAT FOR:	Fish, frogs, birds				
SURROUNDING LAND USE:	Old field, scrub shr	ub			
WETLAND FRINGE (IF PRESENT):	Some wetland veg	growing within	OHWM		
		Сом	MENTS		

Pond WP-03



SE



SW

POND DATA SHEET					
FEATURE ID Pond WP-04		ASSOCIATED FEATURES:			
SURVEY TYPE: Wetland and w	aterbodies delinea	tion			
Date: 05/22/2024	CLIENT/PROJECT NAME:	FirstEner	gy	Washington-	Polo Road - Phase 2
INVESTIGATORS: JBL		ROUTE:			
STATE/COUNTY: OH	Carroll		IS THIS A MAP	PED NWI FEATURE?: YES	Pubgx
		WATERBODY C	IARACTERIS	TICS	
WATERBODY TYPE:	Pond				
Avg. Depth:	10				
Avg. WIDTH (WATER SURFACE):	100				
APPROXIMATE SIZE:	0.5 acre				
		QUALITATIVE		S	
AVERAGE WATER APPEARANCE:	Wet				
PRIMARY SUBSTRATE (IF OBSERVED):	Silt				
POTENTIAL HABITAT FOR:	Amphibians, fish				
SURROUNDING LAND USE:	Pasture hayfield				
WETLAND FRINGE (IF PRESENT):	Yes outside ROW				
Сомментя					

Pond WP-04







### P-MJA-052224-01

POND DATA SHEET					
FEATURE ID Pond WP-05		ASSOCIATED FEATURES:			
SURVEY TYPE: Wetland and w	aterbodies delinea	tion			
Date: 05/22/2024	CLIENT/PROJECT NAME:	FirstEnergy Washington-Polo Road - Phas			
INVESTIGATORS: MJA		Route:			
STATE/COUNTY: OH	Carroll		IS THIS A MAP	PED NWI FEATURE?: NO	
		WATERBODY CH	IARACTERIS	TICS	
WATERBODY TYPE:	Artificial pond				
AVG. DEPTH:	>1 ft				
Avg. WIDTH (WATER SURFACE):	30 ft				
APPROXIMATE SIZE:	0.04 acre				
		QUALITATIVE		S	
AVERAGE WATER APPEARANCE:	Green				
PRIMARY SUBSTRATE (IF OBSERVED):	Silt				
POTENTIAL HABITAT FOR:	Frogs, fish				
SURROUNDING LAND USE:	Maintained ROW				
WETLAND FRINGE (IF PRESENT):	W-MJA-052224-02				
Сомментя					
Impounded pond with overflow outlet that drains into woods west of ROW.					

Pond WP-05





Substrate

NW