AMERICAN TRANSMISSION SYSTEMS, INCORPORATED A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

KNOX-NOTTINGHAM 138 kV TRANSMISSION LINE REBUILD PROJECT NEW STACY BUC TO NOTTINGHAM SUB SEGMENT

OPSB CASE NO.: 23-1013-EL-BLN

November 28, 2023

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

LETTER OF NOTIFICATION

Knox-Nottingham 138 kV Transmission Line Rebuild Project -New Stacy BUC to Nottingham Sub Segment

The following information is being provided in accordance with Ohio Administrative Code (OAC) Chapter 4906-6 for the application and review of Accelerated Certificate Applications. Based upon the requirements found in Appendix A to OAC Rule 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 – New Stacy BUC to Nottingham Sub Segment

("Project").

Reference Number: 2031-2 (New Stacy BUC to Nottingham

Segment)

Reference Number: 3224-2 (Nottingham-Yager No. 1)

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 10-mile New Stacy BUC to Nottingham segment of the approximately 44-mile Knox-Nottingham 138 kV Transmission Line and an approximately 3.6-mile section of the Nottingham-Yager No. 1 138 kV Transmission Line that is immediately adjacent to the Knox-Nottingham 138 kV Transmission Line ("Project").

The New Stacy BUC-Nottingham Segment extends from existing structure 276, the point of interconnection with Buckeye Power, to existing structure 15922 (new structure 210) in Harrison County. The approximate 3.6-mile rebuild section of the Nottingham-Yager No.

1 138 kV Transmission Line starts at existing structure 3292, a conjunction of multiple transmission lines, and extends to existing structure 3268 in the vicinity of AEP's Nottingham Substation. The Project will traverse Archer, Cadiz and Athens Townships in Harrison County, Ohio. The Project will be comprised of the following:

- 1. The Project consists of rebuilding the existing 10 miles of single-circuit New Stacy BUC-Nottingham 138 kV Transmission Line and a portion of the Nottingham-Yager No. 1 138 kV Transmission Line, approximately 3.6 miles, by using a combination of steel structures on concrete foundations or directly embedded steel structures. The transmission lines are currently constructed on wood pole H-frame structures. The new centerline alignment for the approximate 3.6 miles of commonality will be located within existing right-of-way, midway between the two existing transmission lines. The two existing lines will be removed once construction is complete.
- 2. 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, Harrison 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 and the 20-mile Holloway-Nottingham #1 and #2. 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 4th segment to be submitted to the OPSB, with one segment remaining hereafter. 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)
- Washington to Kilgore (Polo Road) Segment (To be Filed)

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 OAC Rule 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.

4906-6-05 (B)(2): Need for the Project

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 as-is. 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 44 of 67 structures (approximately 66%) of the New Stacy (BUC)–Nottingham Segment were defective and pose reliability concerns. The same inspection found that 17 of 26 structures (approximately 65%) of the 3.6-mile section of the Nottingham-Yager No. 1 138 kV Transmission Line were defective and pose reliability concerns. Table 1 summarizes the results of that inspection.¹

Table 1– Pole Inspection Summary

Defect Type	Defect Count
Woodpecker Holes	41
Decay	13
Failed Sound Test	7

¹ 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.

Wood poles are considered rejected when defects render a pole unsafe, unreliable, or non-compliant with current code, including the rejection of wood poles when the pole strength has been reduced to $2/3^{rd}$ of the original design strength. This is in line 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 either 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 maintenance issue.

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. 2023 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 23-0504-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 41 failed wood H-frame structures on the New Stacy (BUC)–Nottingham Segment and 17 failed wood H-frame structures on the Nottingham-Yager No. 1 138 kV Transmission Line with wood H-frame structures and re-use the existing conductor and shield wire. Includes construction of approximately 9.71 miles of access roads and restoration after replacement.

Alternative 2

Rebuild 10 miles of transmission line and 3.6 miles of the adjacent Nottingham-Yager No.1 138 kV 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 10.17 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 in Section 4906-6-05 (B)(2), approximately 66% (New Stacy BUC-Nottingham) and approximately 65% (Nottingham-Yager No. 1 138 kV Transmission Line) of the wood poles 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 its 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 bring 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. Since 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 communication perspective. If pole replacement is done 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 in Section 4906-6-05 (B)(10), the land use in the area of the Project is primarily rural residential, agricultural, and mining. Disruption to landowners and/or operators is minimized in 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 New Stacy BUC-Nottingham Segment and a portion of the Nottingham-Yager No. 1 138 kV Transmission Line presents a significant risk to ATSI's ability to meet this obligation. The New Stacy BUC-Nottingham Segment and the 3.6-mile section of the Nottingham-Yager No. 1 138 kV Transmission Line serve multiple delivery points, including Buckeye Power's New Stacy Substation and AEP's Nottingham Substation.

The best approach is, therefore, to completely rebuild the New Stacy BUC-Nottingham Segment and the 3.6-mile section of the Nottingham-Yager No. 1 138 kV Transmission Line. ATSI believes that the rebuild project is the most cost-effective and least impactful approach to ensure its 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 OAC 4906-6-08(A)(1)-(6). In addition to the public notice, ATSI will mail letters in accordance with OAC 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 February 2024

and is proposed to be completed/in-service by January 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, specifying whether ATSI either has obtained or has not yet acquired the necessary

easement/right-of-way/land rights.

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)

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Land Requirements: Access Rights

Structure Types: Exhibit 6: 138 kV Double Circuit Steel Pole, Deadend

(approximately 2 Structures)

Exhibit 7: 138 kV Double Circuit Steel Pole, Strain (approximately

4 Structures)

Exhibit 8: 138 kV Double Circuit Steel Pole, Suspension

(approximately 20 Structures)

Exhibit 9: 138 kV Single Circuit Steel Pole, Suspension

(approximately 30 Structures)

Exhibit 10: 138 kV Single Circuit Steel Pole, Deadend

(approximately 2 Structures)

Exhibit 11: 138 kV Single Circuit Steel Pole, Strain

(approximately 4 Structures)

Exhibit 12: 138 kV Single Circuit Steel Pole, Angle

(approximately 4 Structures)

Exhibit 13: 138 kV Single Circuit Steel Pole, Switch

(approximately 1 Structure)

Exhibit 14: 138 kV Single Circuit Steel Pole, Tap (approximately

1 Structure)

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

There are no occupied residences or institutions within 100 feet from the existing transmission line centerline, therefore, no Electric and Magnetic Field ("EMF") calculations are required by this code provision.

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

The estimated capital cost for the proposed Project is approximately \$39,112,000. Although not statutorily required for approval but at the request of OPSB Staff, ATSI is providing 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.

4906-6-05 (B)(10): SOCIAL AND ECOLOGICAL IMPACTS

4906-6-05 (B)(10)(a): Land Uses

The Project is located in Archer, Cadiz and Athens Townships in Harrison County, Ohio.

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

A list of all agricultural land and acreage including agricultural district land is provided in

Exhibit 5.

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

On behalf of ATSI, Jacobs Engineering Group Inc. ("Jacobs") submitted a Section 106

Review ("Review") for the entire Knox-Nottingham 138kV Transmission Line Project in

August 2020. The Review examined the records available through the Ohio Office of

Historic Preservation's ("OHPO") online mapping database for known cultural resources

within a 1-mile radius of the entire Project footprint (APE). As currently designed, all of

the off-ROW preliminary access roads are within the 1-mile study area.

In a letter dated September 16, 2020 (attached as Exhibit 16), the OHPO concurred that

the Project, as proposed, will not affect historic properties. Due to periodic updates to the

OHPO online mapping system, an updated records review was conducted on September

20, 2023. This review identified 20 OAI (Ohio Archaeological Inventory)-listed

archaeological sites, 14 OHI (Ohio Historical Inventory)-listed resources, 4 OGS (Ohio

Genealogical Society)-listed cemeteries. Additionally, 21 previous archaeological surveys

have been documented within one mile of the Project.

The results of the records review identified 20 OAI-listed archaeological sites within 1-

mile of the Project. This includes 12 prehistoric era sites, 7 historic era sites, and one site

with prehistoric and historic components. There are no previously recorded archaeological

sites within the APE. The closest site to the ROW is site HN0051, a historic artifact scatter

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of unknown temporal period approximately 295 feet east of _____ on a small terrace. The site HN0051's NRHP status is currently unknown and will not be affected by the Project.

The results of the records review identified 14 OHI-listed resources within 1-mile of the Project. This includes nine single-family dwellings, four agricultural resources, and one historic bridge. None of the above-ground resources are within the Project ROW. The closest OHI-listed above-ground resource is HAS0031611, also known as the John Finical Farm, located approximately 0.09 miles from the project area. The resource is not located next to any existing pole locations and will not be affected by the Project.

The results of the records identified 4 OGS cemeteries within 1-mile of the Project. Of these 4 OGS cemeteries, only one is within the Project ROW, the Hines-Moravian Ridge Cemetery on Deersville Ridge Road. As the Project is in an unoccupied section of the cemetery property, the cemetery will not be affected by the Project.

Two of the 21 previous archaeological surveys intersect the APE. One survey consists of a 1988 Phase I & II investigation in support of a coal-related project. The second survey consists of a 2014 Phase I investigation in support of a 138 kV switch installation.

Based upon this updated review, the Project will not impact any previously recorded archaeological sites or historic properties. Jacobs recommends that no further archaeological or architecture history investigations are required.

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

Table 2

Table 2			
Governmental Agency	Documents		
Ohio Environmental Protection Agency (OEPA)	General NPDES Construction Storm Water Permit OHC000006		
Harrison County Soil and Water Conservation District	Storm Water Pollution Prevention Plan (SWP3) – Review Application		
Harrison County	Floodplain Development Review		
Ohio Department of Transportation; Harrison County; Athens, Archer, and Cadiz Townships	Driveway Entrance Permits (MR 505, Driveway Permit for Construction within the County Right-of-Way Limits)		
Ohio Department of Transportation; Harrison County; Athens, Archer, and Cadiz Townships	Roadway Occupancy Permits and review (MR 505, Use of County Right of Way Permit, Utility Installation Application Permit)		
Harrison County; Athens, Archer, and Cadiz Townships	Special Hauling Permit and Road Use Maintenance Agreement (RUMA)		
Columbus & Ohio River Railroad	Railroad Crossings Permits		

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

Jacobs, on behalf of ATSI, submitted a request to the Ohio Department of Natural Resources ("ODNR") to conduct an Environmental Review of the Project area on January 17, 2023. As part of the Environmental Review, the ODNR 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 area. The ODNR's response on February 7, 2023, stated that the Natural Heritage Database had 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. The Division of Wildlife found that 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 17.

Jacobs also submitted a request to the U.S. Fish and Wildlife Service ("USFWS") for an Ecological Review on January 17, 2023, 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 is included as Exhibit 18. The USFWS's response on January 26, 2023, 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 3.

Table 3. List of Endangered, Threatened, and Rare Species

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat		
Mammals	Mammals					
Indiana bat	Myotis sodalis	Endangered	Endangered	Trees and forests		
Northern long-eared bat	Myotis septentrionalis	Endangered ²	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		

² As of March 2023

Northern harrier	Circus cyaneus	NA	Endangered	Marshes and grasslands
Sharp-shinned hawk	Accipiter striatus	NA	Species of Concern	Forests and agricultural
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, the federal and state endangered northern long-eared bat, the state endangered little brown bat (Myotis lucifugus), and the 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, there will be no adverse effect to these bat species.

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 Ohio Natural Heritage Database 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. There will be no impacts to these species 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). There will be no impacts to these species 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 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). There will be no impacts to these species due to the Project's location and 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 this general assessment, Jacobs is identifying locations of grassland areas that may be potential habitat for nesting bird species that were identified by ODNR. This habitat assessment is currently being developed and will be provided to ODNR in a follow-up correspondence for the Project. ATSI has indicated 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 prior to April 15th to avoid impacts to these potential nesting bird species by inhibiting nesting within those work areas.

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 impact.

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

Jacobs, on behalf of ATSI, consulted with the ODNR and the USFWS for the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forest, national wildlife refuges, or other protected natural areas within one (1) mile of the project area. The ODNR's response on February 7, 2023, did not indicate the presence of any areas of ecological concern within the vicinity of the Project area. A copy of ODNR's response is included as Exhibit 17. The USFWS's response on January 26, 2023, did not indicate any federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project area. A copy of USFWS's Ecological Review response is included as Exhibit 18.

ATSI contracted Jacobs to conduct a wetland and stream delineation of the Knox-Nottingham 138 kV Transmission Line Rebuild Project – New Stacy BUC to Nottingham Sub Segment. Jacobs' assessment focused on the Project area consisting of approximately 9.7-miles of existing 150-foot wide (100-foot cleared corridor) transmission line right-of-way (ROW), access roads, and work areas. The Project is in Harrison County starting at the Buckeye Power New Stacy Substation and ending at Nottingham Substation, as shown in Exhibits 1 and 2.

Jacobs conducted an environmental survey of the Knox-Nottingham 138 kV Transmission Line Rebuild Project – New Stacy BUC to Nottingham Sub Segment in October 2023. A total of 33 wetlands, 33 streams, and eight ponds were delineated within the environmental survey corridor (ESC) as shown in Figures 3-1 through 3-39 of Exhibit 19. The 33 wetlands totaling 10.17 acres within the ESC included 32 PEM wetlands and one PEM/PSS wetland complex. Of the 33 wetlands, 21 were identified as Category 1 wetlands and 12 were identified as Category 2 wetlands. No Category 3 wetlands were identified within the ESC. The 33 streams totaling 5,873 linear feet within the ESC included 17 ephemeral streams, 10 intermittent streams, and six perennial streams. Three streams had an OEPA designated use, two streams were assessed using QHEI

methodology (drainage area greater than one square mile), and 28 streams were assessed using HHEI methodology (drainage area less than one square mile). Additionally, eight ponds were identified, totaling 1.94 acres within the ESC.

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 will occur. There are 11 unavoidable PEM wetland and one PSS wetland that will be temporarily disturbed by access roads and/or work pads. In these areas, a total of approximately 0.31 acre of wetlands will be temporarily disturbed during construction by the installation of timber matting for access road crossings and work pads. Temporarily affected PEM and PSS 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 Harrison County are located within a regulated floodplain. Jacobs will consult with Harrison 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.

4906-6-07: Documentation of Letter of Notification Transmittal and Availability for Public Review

This Letter of Notification is being provided concurrently with its docketing with the Board to the following officials:

Harrison County

Commissioner Amy Norris
Harrison County Commissioner
538 North Main Street
Cadiz, OH 43907

Commissioner Dustin Corder Harrison County Commissioner 538 North Main Street Cadiz, OH 43907

Archer Township

Matthew Dulkoski Archer Township Trustee 44690 Jewett Hopedale Rd Jewett, OH 43986

Aaron Dodds Archer Township Trustee 83510 Bakers Ridge Rd Cadiz, OH 43907

Cadiz Township

Ray Poillucci Cadiz Township Trustee 652 McCready Ave Cadiz, OH 43907 Commissioner Paul Coffland Harrison County Commissioner 538 North Main Street Cadiz, OH 43907

Douglas N. Bachman P.E., P.S Harrison County Engineer 1 Service Garage Rd Cadiz, Ohio 43907

Troy Blackburn

Archer Township Trustee 87329 Briar Rd

8/329 Briar Rd Jewett, OH 43986

Renea Riesen

Archer Township Fiscal Officer

85201 Bell Hill Rd Cadiz, OH 43907

C Scott Porter

Cadiz Township Trustee

380 Oak Park Cadiz, OH 43907 Clint Barr Cadiz Township Trustee 111 Old Steubenville Pike Cadiz, OH 43907 Brenda Carter Cadiz Township Fiscal Officer 267 Charleston St Cadiz, OH 43907

Athens Township

Mr. Robert Applegarth Athens Township Trustee 43270 Stumptown Rd Cadiz, OH 43907

Mr. David Butler Athens Township Trustee 117 E Wheeling St New Athens, OH 43981 Mr. Michael Saffell Athens Township Trustee 193 N Main St, P.O.Box 28 New Athens, OH 43981

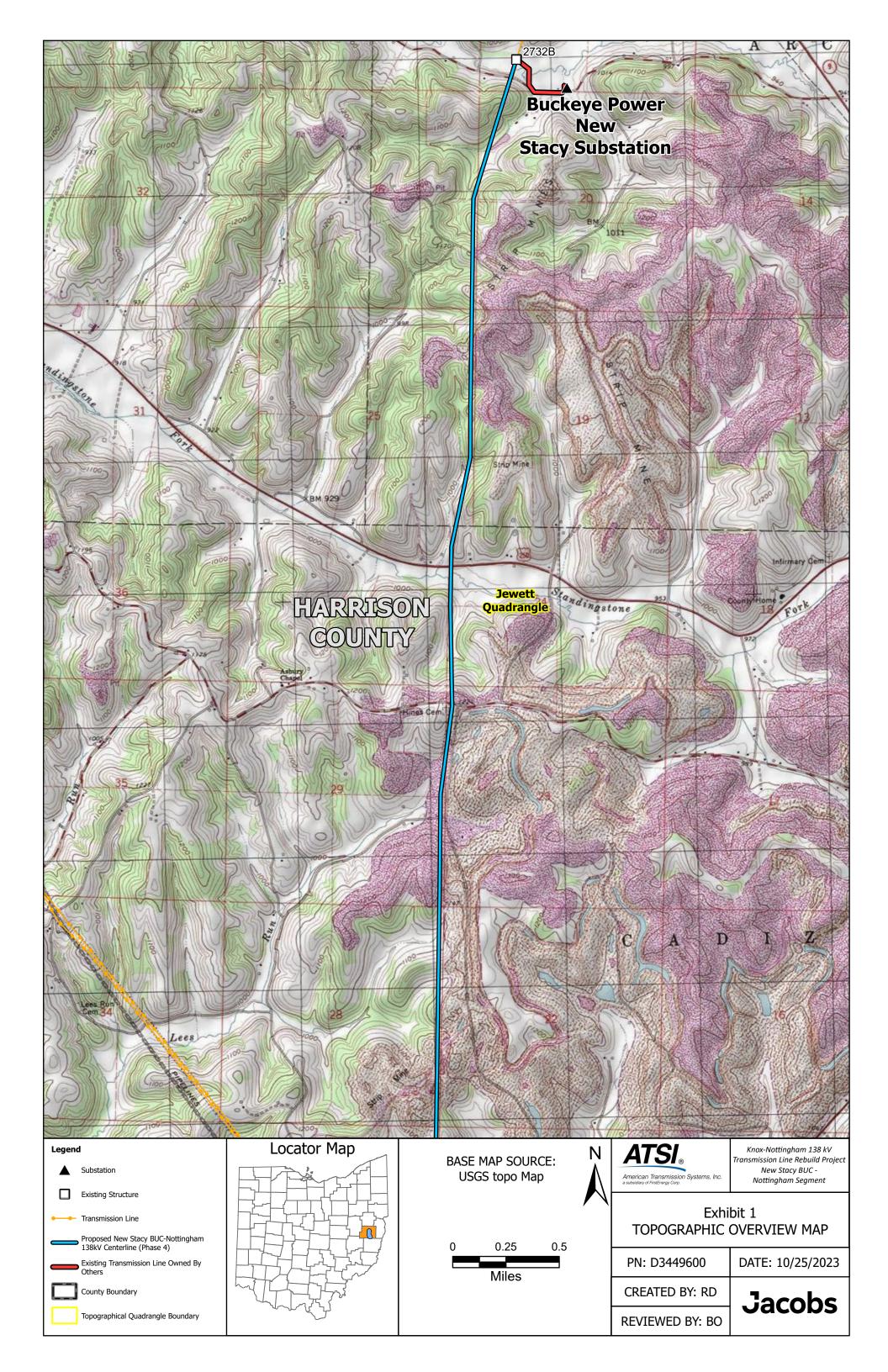
Mr. David Allen Watson Athens Township Fiscal Officer 74070 Flushing New Athens Rd. PO Box 147 New Athens, OH 43981

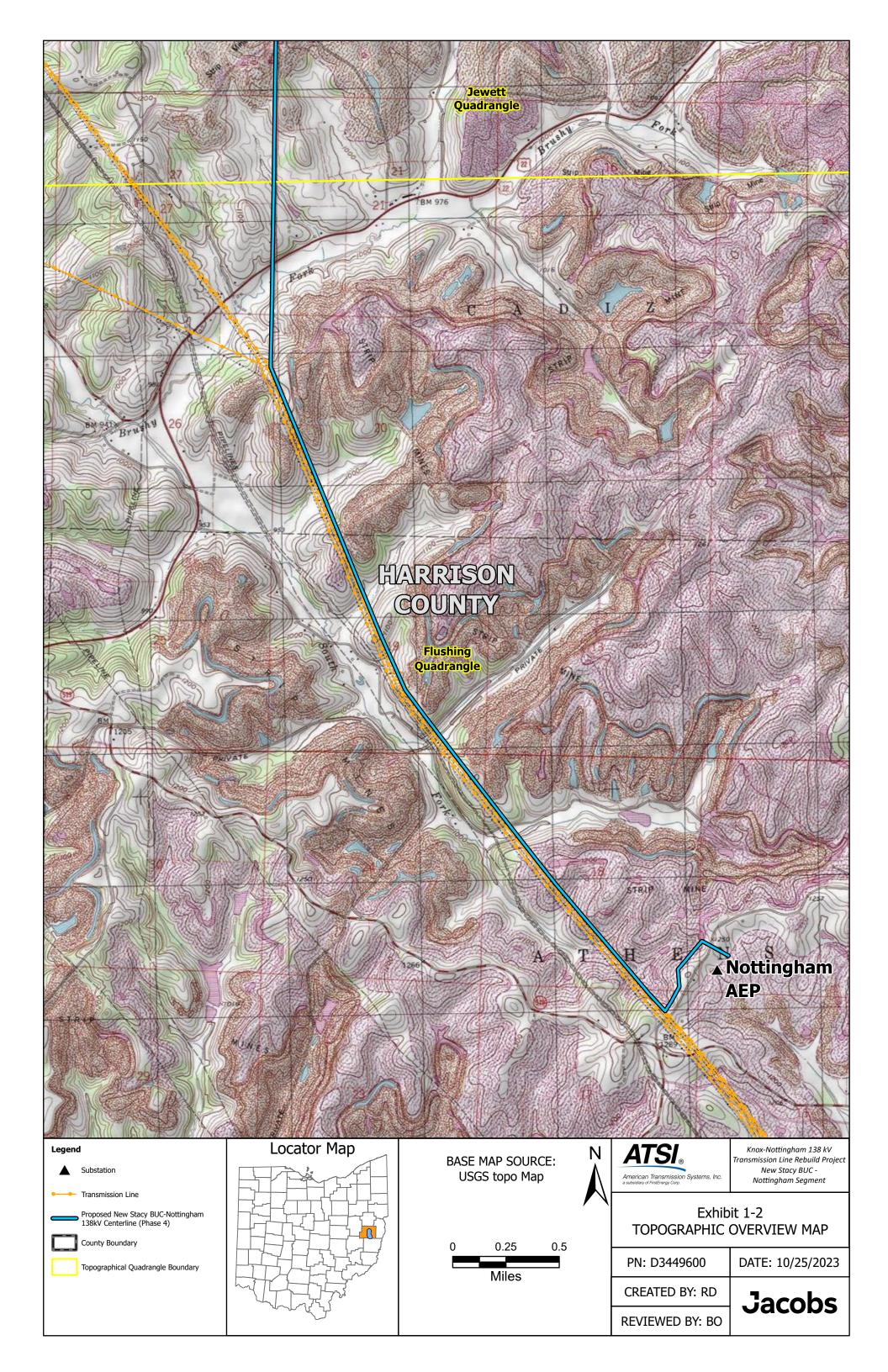
Libraries

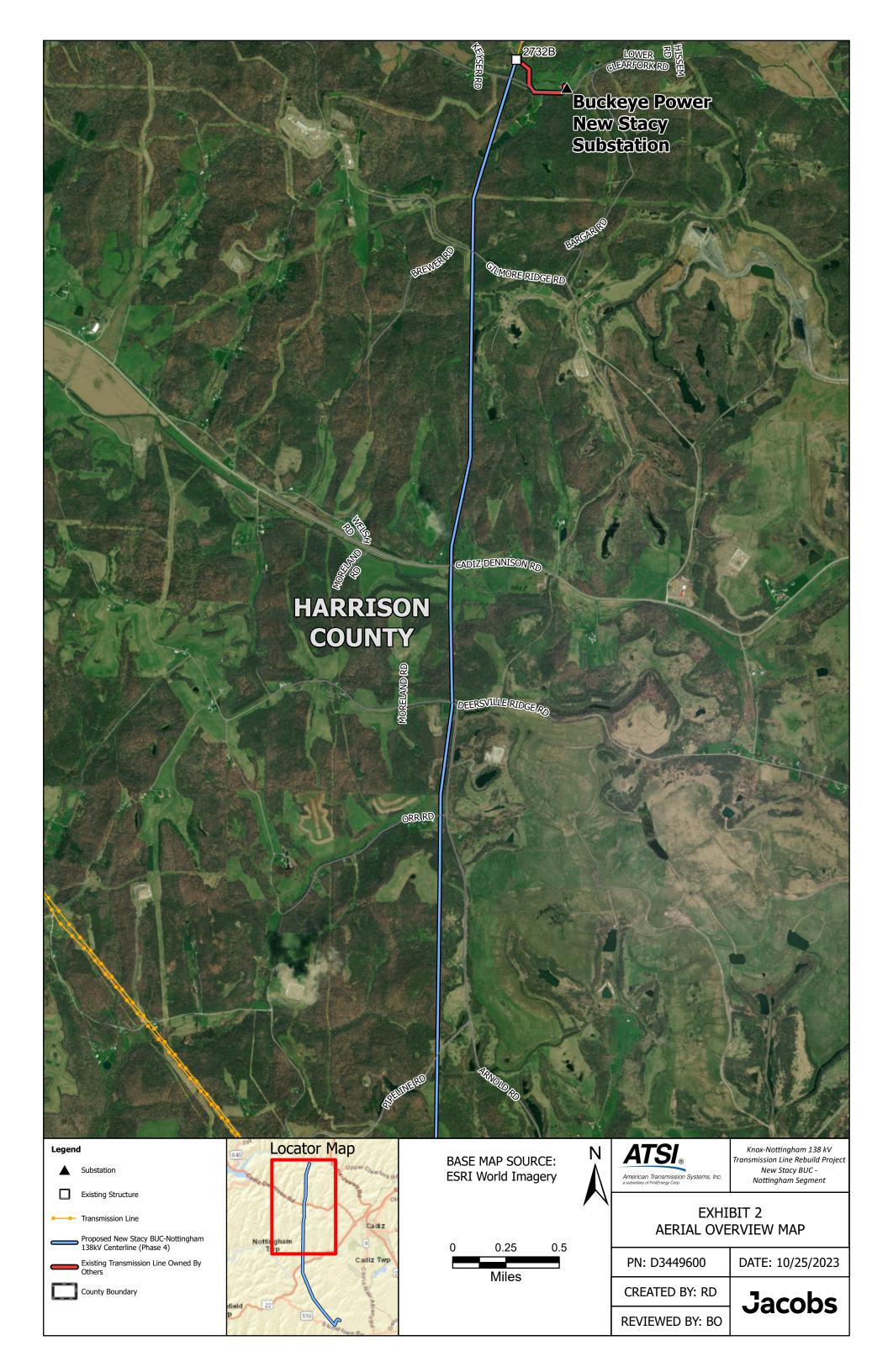
Ms. Sandi Thompson, Director Puskarich Public Library 200 E Market St. Cadiz, OH 43907

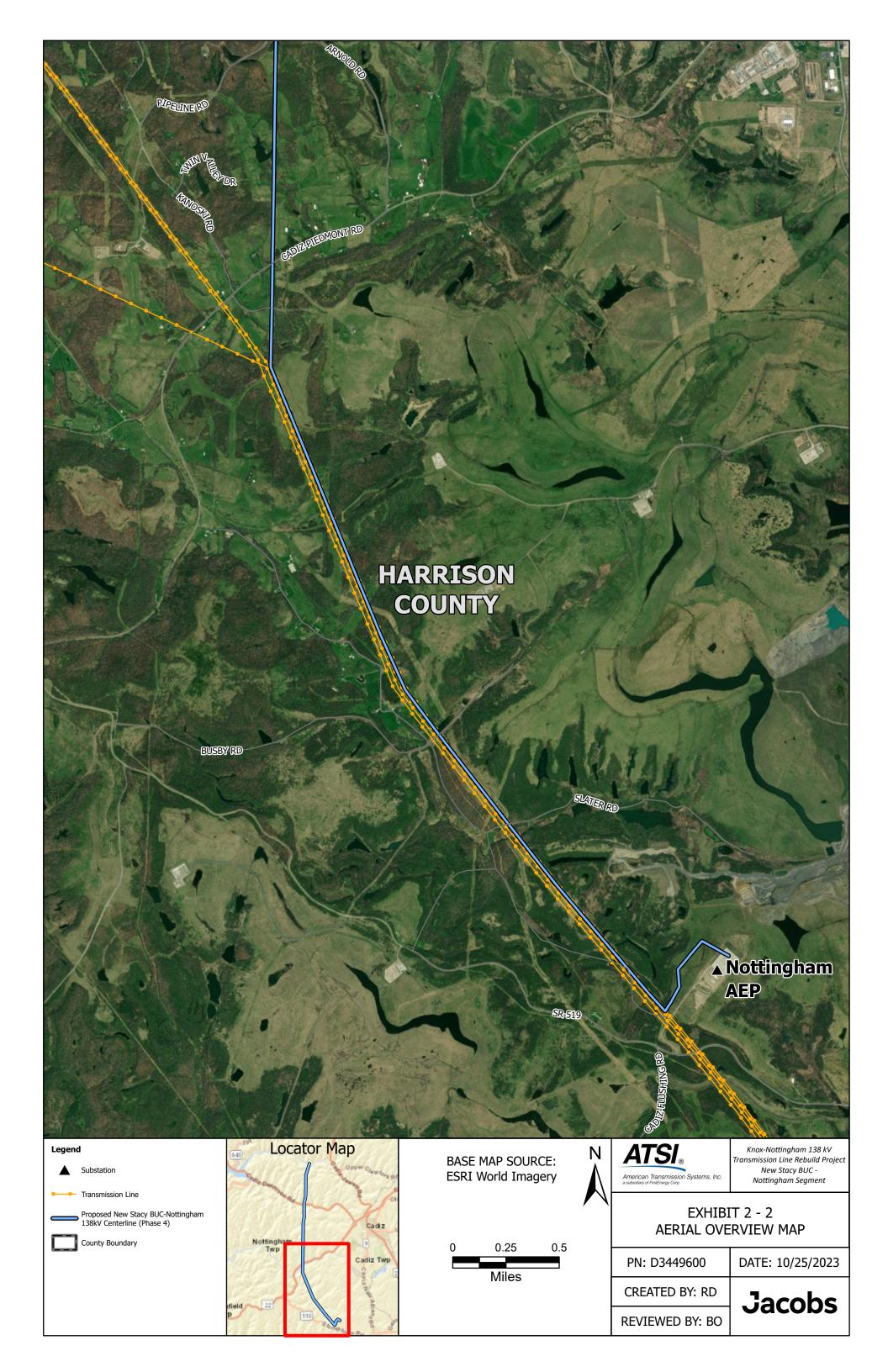
Copies of the transmittal letters to these officials have been included with this application as proof of compliance under OAC Rule 4906-6-07 (B) to provide the Board with proof of notice to local officials as required by OAC Rule 4906-6-07 (A)(1) and to libraries per OAC Rule 4906-6-07 (A)(2).

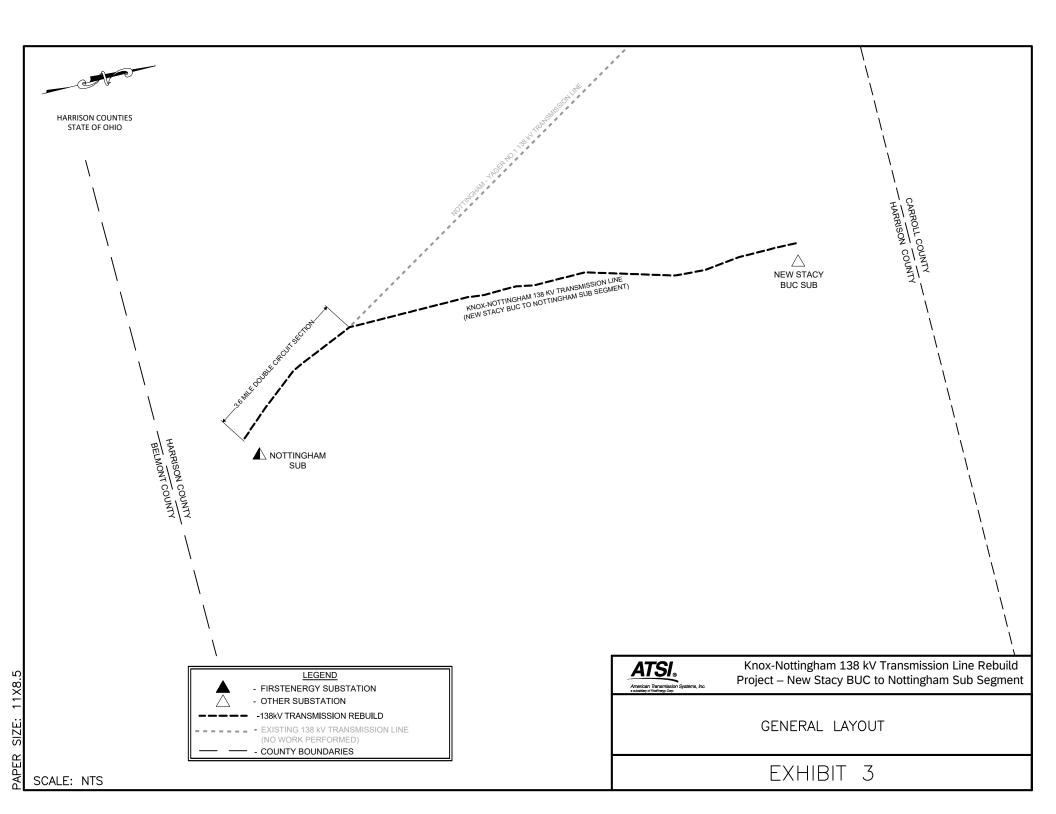
Information is posted at: www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Letter of Notification application. The link to this website is being provided to meet the requirements of OAC Rule 4906-6-07 (B) and to provide the Board with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











ATSI Transmission Zone Holloway-Nottingham-Knox 138 kV Line

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 #1 138 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

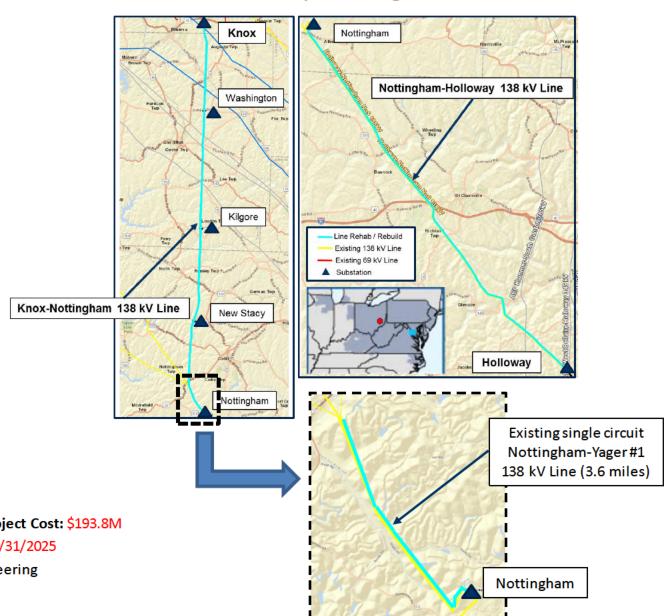


Exhibit 5

Property Owner List and Agricultural Land Knox-Nottingham 138 kV Transmission Line Rebuild Project – New Stacy to Nottingham Sub Segment Case Number 23-1013-EL-BLN

Case Number 23-1013-EL-BLN				
Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
10000345000	221.02	Existing	No	N/A
04000096000, 04000096001	87.8 .1487	Existing	No	N/A
020000265000	12.014	Existing	No	N/A
040000577003	6.7	Existing	No	N/A
04000003004	29.16	Existing	No	N/A
040000578000	1.69	Existing	No	N/A
020000116000	No Data	Existing	N/A	N/A
020000154000 020000129000 020000153000 020000134000 020000136000	105.00 141.00 No Data 7.00 90.129	Existing	No	N/A
010000104000 290000052000	114.00 21.38	Existing	No	N/A
040000581001 040000581002 040000219000 040000581000 040000581003	63.985 72.557 40.875 24.00 3.02	Existing	Yes Yes Yes Yes No	2027
010000068001 010000240000 010000066001 010000076001 010000070004 010000069002 010000157000 040000192000 010000195003 010000070002	56.13 No Data 72.176 71.25 3.294 9.79 71.523 40.837 48.2412 26.13	Existing	No	N/A
020000152000 040000004000 020000131000 020000215000 020000103000	32.26 93.09 476.319 4.159 368.134	Existing	No	N/A
020000448000	190.19	Existing	No	N/A
040000208002, 040000208000	91.6 73.81	Existing	No	N/A

040000189000,

010000154000

040000188000,

29.75

60.00

84.00

Existing

Existing

No

No

N/A

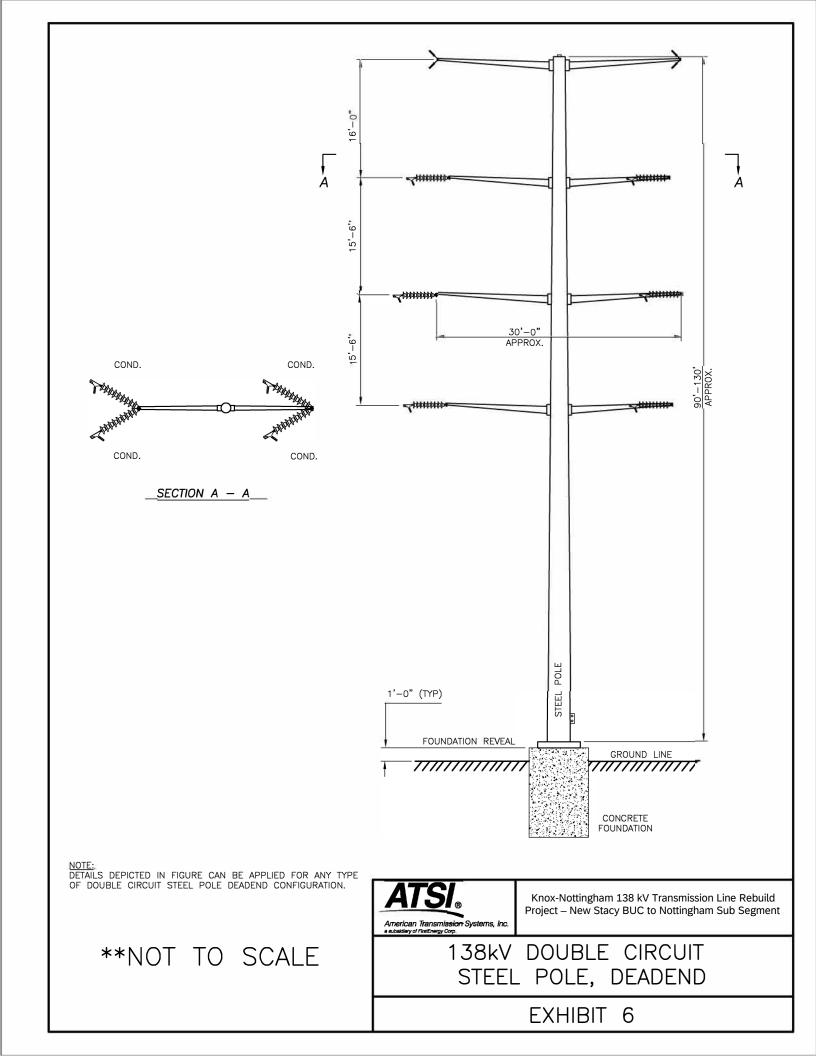
N/A

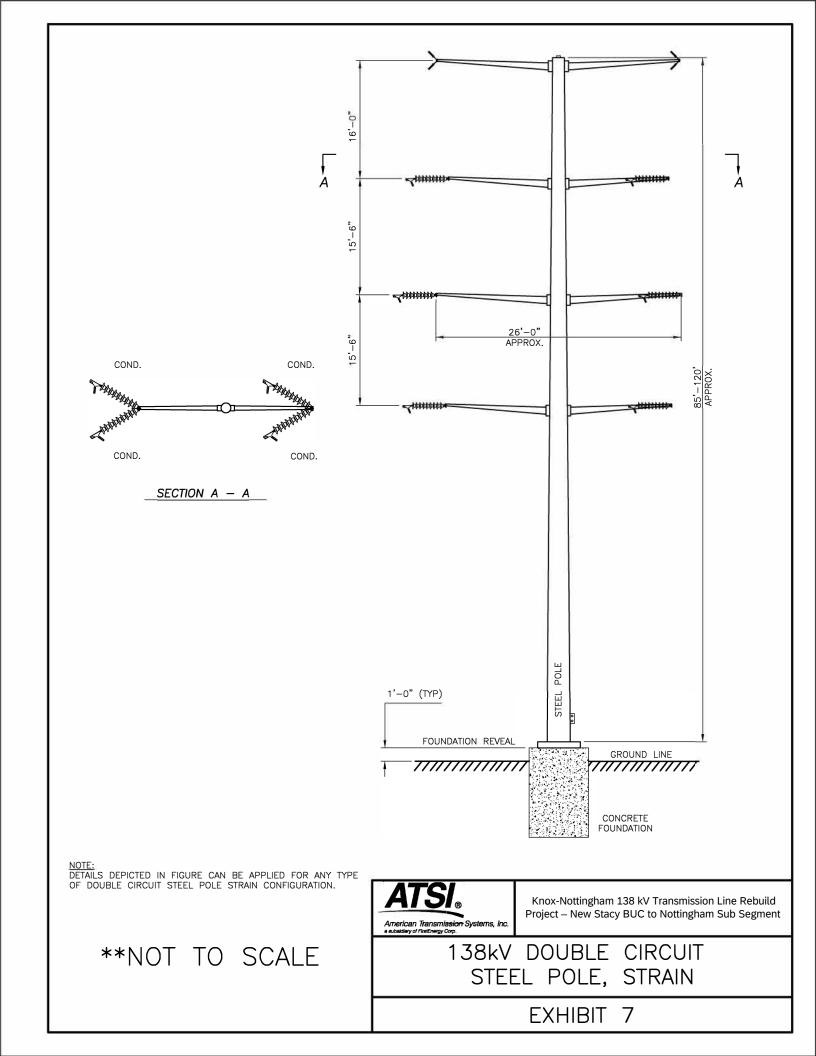
Exhibit 5

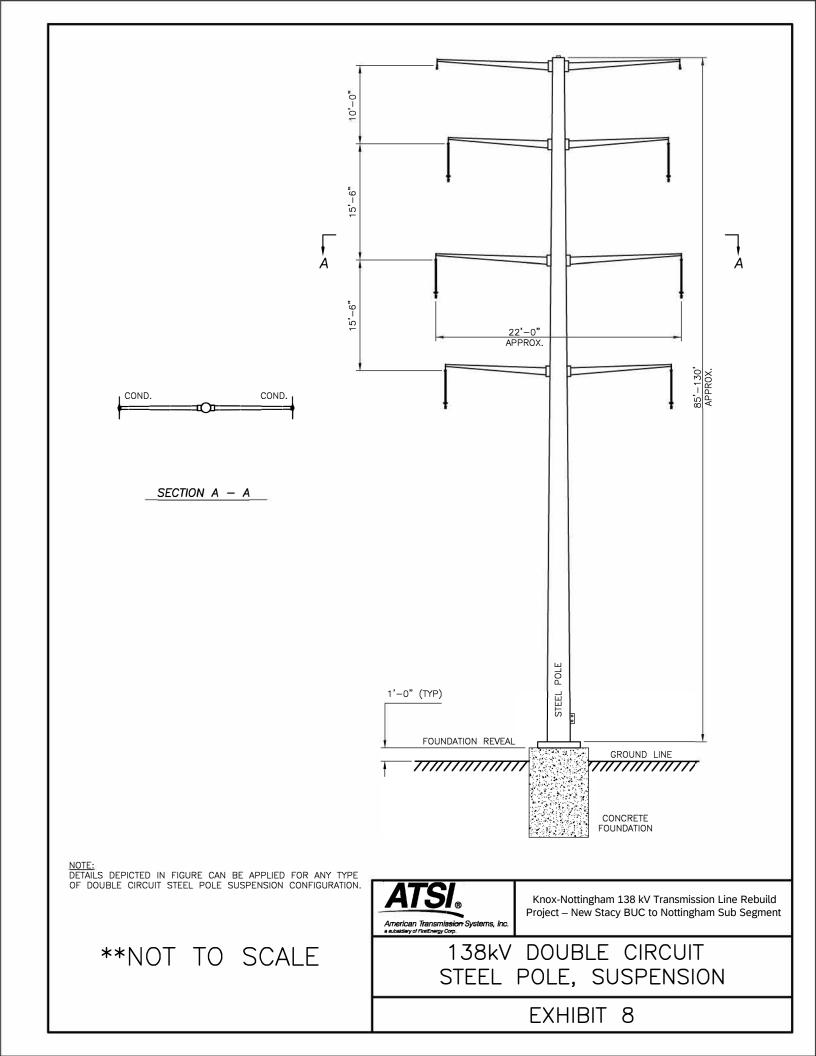
Property Owner List and Agricultural Land Knox-Nottingham 138 kV Transmission Line Rebuild Project – New Stacy to Nottingham Sub Segment

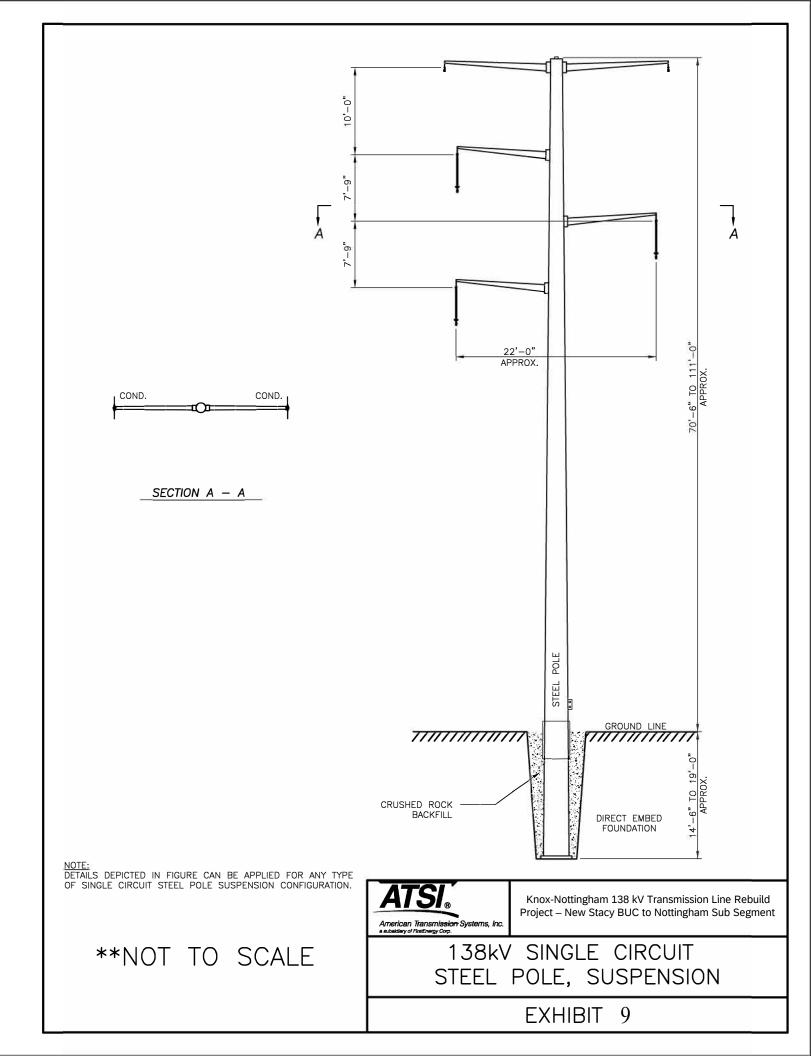
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Case	Number	23-1013-EL	-BLN

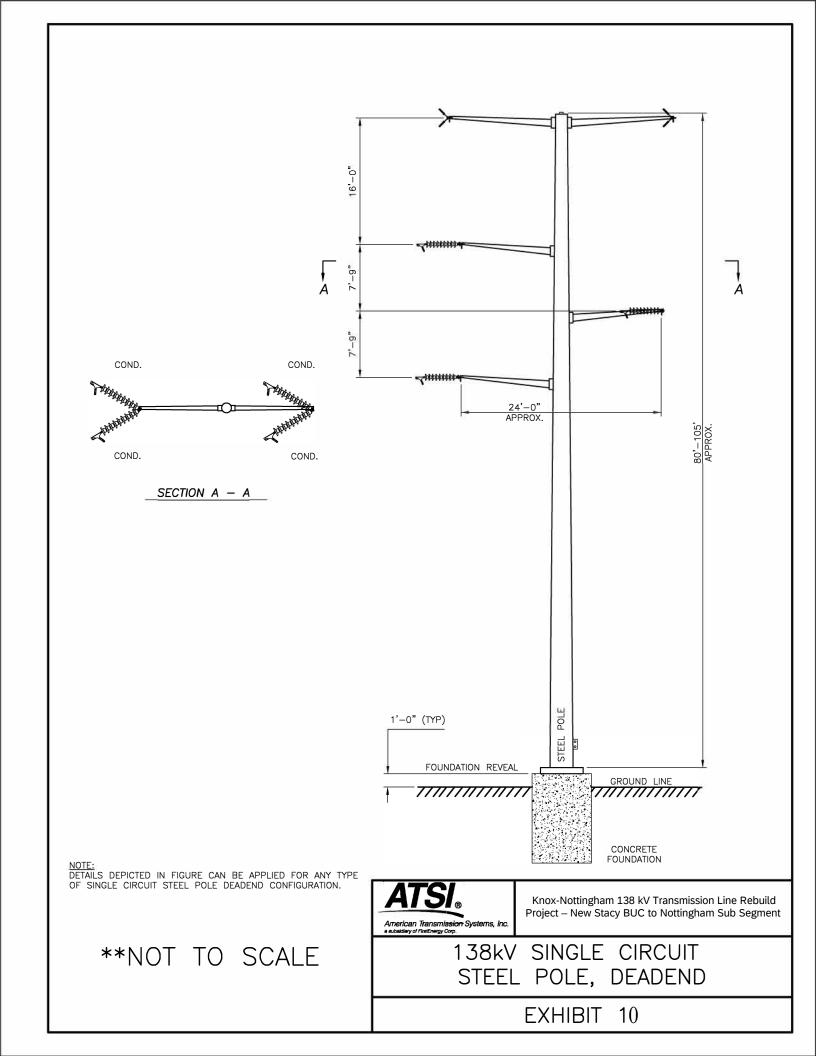
040000186000	35.279			
040000103002, 040000115005	8.417 5.574	Existing	No	N/A
040000358001, 040000207000, 040000117001, 040000206000	.62 122.5 28.82 52.7	Existing	No	N/A
010000564000	10.32	Existing	No	N/A
020000263000	198.29	Existing	No	N/A
040000117007	13.008	Existing	No	N/A
040000264000, 040000115001, 040000252002, 040000115004, 040000115003, 040000115002	40.00 7.38 8.35 11.78 12.8 59.83	Existing	No	N/A
040000115000, 040000250000, 040000103001, 040000633001, 040000588000, 040000185000	22.633 85.8101 73.0524 12.215 73.28 84.00	Existing	No	N/A
040000192002, 040000192003, 010000066000, 010000156000, 010000156002	55.917 73.698 25.063 29.569 99.23	Existing	Yes Yes No Yes No	2027
010000240000	27.831	Existing	No	N/A
020000212000, 020000217000, 040000094000, 040000072000	639.613 69.096 341.449 606.159	Existing	No	N/A
040000271000, 040000270000	81.75 59.94	Existing	No	N/A
020000215005, 020000215003, 020000252011, 020000215006	8.00 21.45 6.858 24.212	Existing	No	N/A
010000195000	26.9299	Existing	No	N/A
020000252002, 020000215001, 020000217003, 020000215002	63.25 48.07 .33 3.6	Existing	No	N/A
040000655000	1.0	Existing	No	N/A

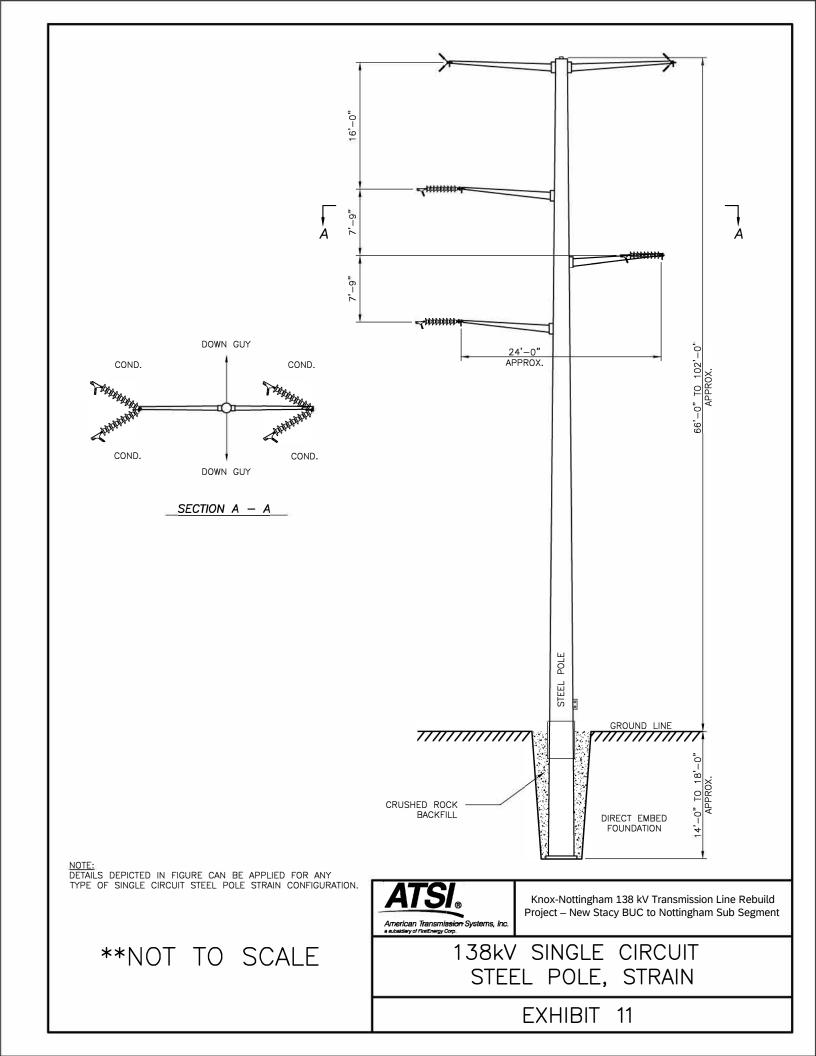


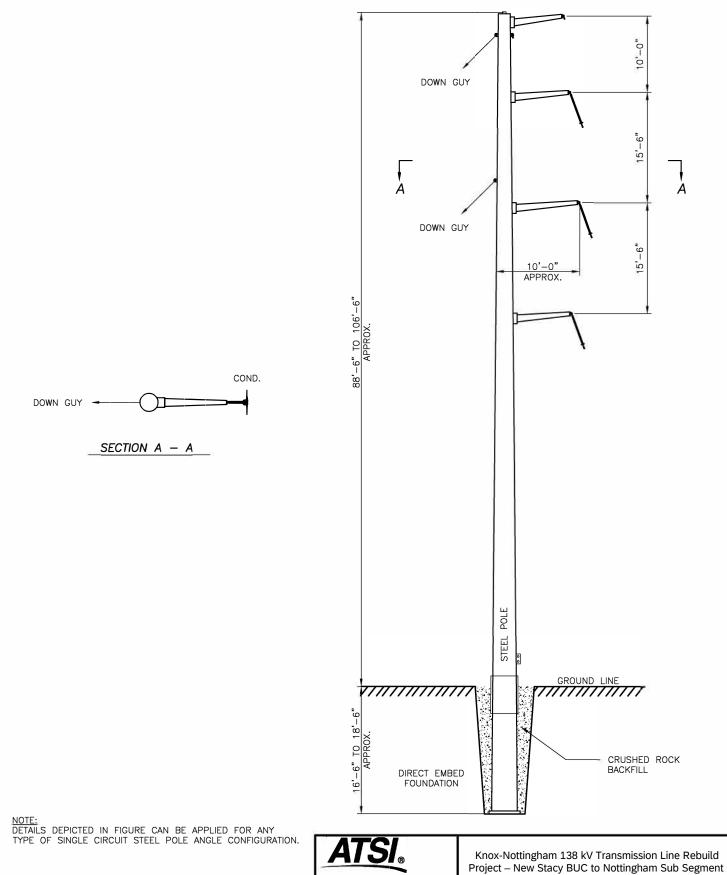










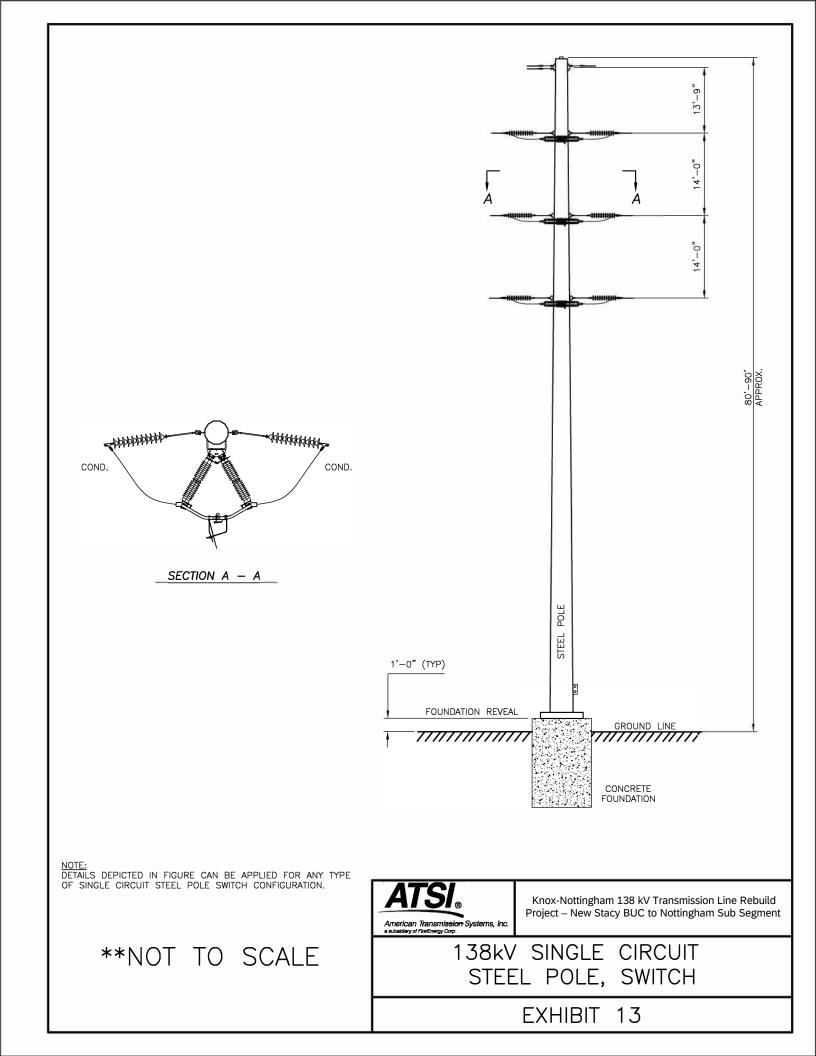


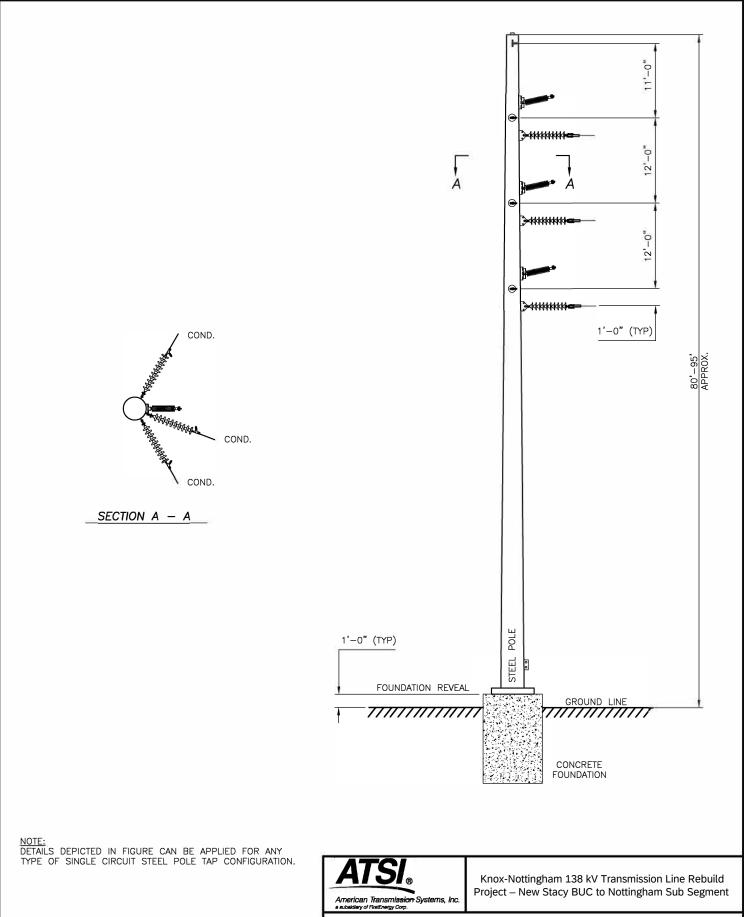
**NOT TO SCALE

American Transmission Systems, Inc. a subsidiery of FirstEnergy Corp.

138kV SINGLE CIRCUIT STEEL POLE, ANGLE

EXHIBIT

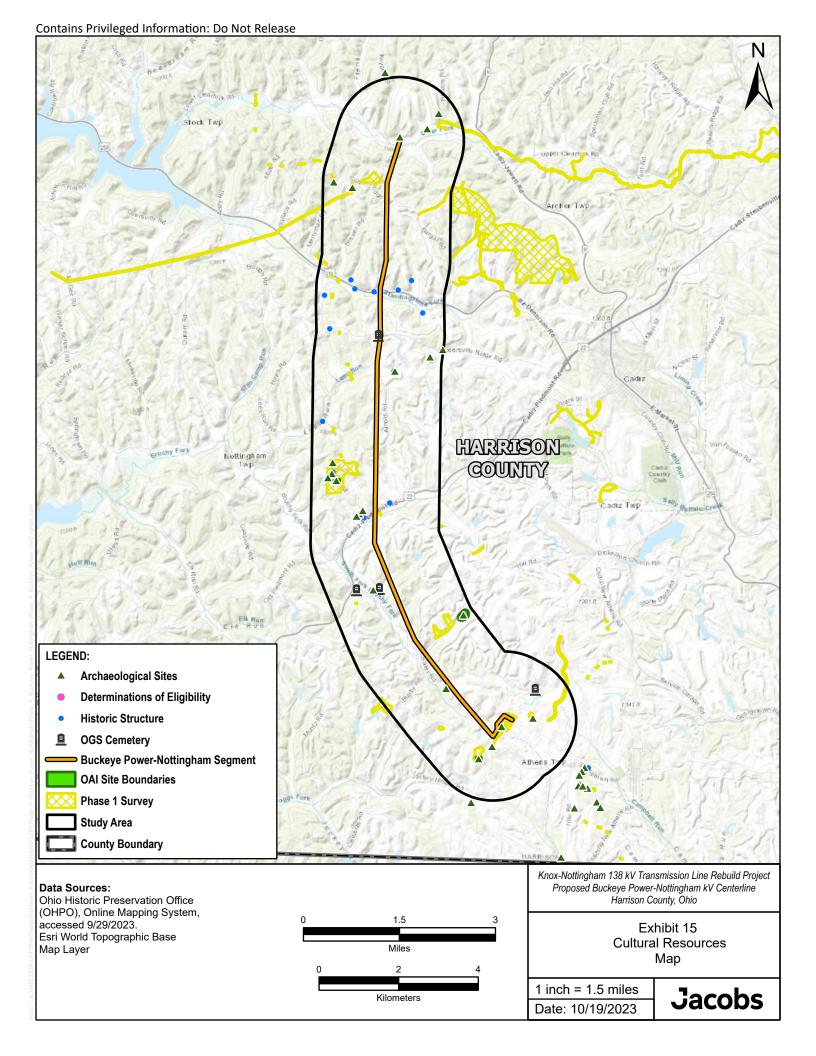




**NOT TO SCALE

138kV SINGLE CIRCUIT STEEL POLE, TAP

EXHIBIT 14





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 64-mile 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 email at sbiehl@ohiohistory.org or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl, Project Reviews Coordinator (archaeology)

Resource Protection and Review State Historic Preservation Office

Stepher M. Biell

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."



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Fax: (614) 267-4764

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

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; P = state species of concern; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; P = state status under review; P = state special interest; $P = \text{st$

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 (Perimyotis 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-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES</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. State Endangered 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.

State Endangered

western banded killifish (Fundulus diaphanus menona)

State Threatened

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 mike.pettegrew@dnr.ohio.gov 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 ≥ 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 ≥ 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 ≥ 3 inches dbh cannot be avoided, we recommend removal of any trees ≥ 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.

Section 7 Coordination: 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.

Stream and Wetland Avoidance: 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 (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). 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 ohio@fws.gov.

Sincerely,

Patrice Ashfield Field Office Supervisor

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

Wetland and Waterbody Delineation Report

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project Harrison County, Ohio

Prepared for



October 2023

Jacobs

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

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Acronyms and Abbreviations

ATSI American Transmission Systems, Incorporated

ESB environmental survey boundary

FAC facultative

FACU facultative upland FACW facultative wetland

FEMA Federal Emergency Management Agency

GNSS global navigation satellite system

HHEI Headwater Habitat Evaluation Index

HUC Hydrologic Unit Code

Jacobs Jacobs Engineering Group Inc.

kV kilovolt

NHD National Hydrography Dataset

NRCS Natural Resource Conservation Service

NWI National Wetland Inventory

OAC Ohio Administrative Code

OBL obligate

OEPA Ohio Environmental Protection Agency

OHWM ordinary high water mark

ORAM Ohio Rapid Assessment Method

PEM palustrine emergent

PSS palustrine scrub/shrub

Project Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

QHEI Qualitative Habitat Evaluation Index

Report wetland and waterbody delineation report

ROW right-of-way

TNW traditionally navigable waters

UPL upland

USACE United States Army Corps of Engineers
USDA United States Department of Agriculture

USEPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

USGS United States Geological Survey

1 Introduction

This wetland and waterbody delineation report (Report) summarizes the results of the wetland and waterbody delineation surveys conducted on the Buckeye Power-Nottingham 138 kilovolt (kV) Transmission Line Rebuild Project (Project) in Harrison 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 9.7 miles of existing transmission line. The environmental survey boundary (ESB) included the existing right-of-way (ROW) which is primarily 100 feet wide with portions of multiple ROWs that are 330 feet wide, access roads, and work areas. This Report contains the following components:

- Figure 1 in Appendix A provides an overview map of the ESB overlain on USGS topographic maps.
- Figures 2-1 to 2-39 in Appendix A contains 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 information.
- Figures 3-1 to 3-39 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.
- Photographs of designated use streams are in Appendix D.
- Qualitative Habitat Evaluation Index (QHEI) Stream Forms are in Appendix E.
- Headwater Habitat Evaluation Index (HHEI) Stream Forms are in Appendix F.
- Jacobs Open Water/Pond Data Forms are in Appendix G.

2 Background Information

The ESB begins just north of the intersection of Keyser Road and Lower Clearfork Road (40.3281, -81.0650) and extends south to its end at Nottingham Substation near the intersection of Stumptown Road and Cadiz-Flushing Road (40.1934, -81.0360). The ESB crosses the townships of Archer, Cadiz, and Athens, Ohio (Figure 1).

Review of the USGS 7.5-minute topographic maps crossed by the ESB (Jewett and Flushing, Ohio) indicates that the primary waterways that drain the ESB include Clear Fork, Standingstone Fork, Brushy Fork, and South Fork Brushy Fork. Topographic relief is comprised of rolling hills with elevations ranging between 925 feet and 1,249 feet above sea level (Figure 1).

Land use and natural communities observed within the ESB include agricultural, hayfield, transmission line ROW, pasture, maintained lawn, road, upland scrub/shrub, wetlands, streams, and ponds.

2.1 Annual Precipitation

Precipitation history for Pike Island, West Virginia was reviewed prior to completing environmental surveys to determine if climatic conditions were normal at the time of the surveys. Pike Island, West Virginia was the nearest weather station with both historical and recent precipitation records. Rainfall recorded in Pike Island ranged from above average to below average prior to the surveys conducted in early October 2023 (Table 2-1; USDA, 2023), suggesting that climatic conditions were approximately normal for the region and time of year. This was taken into consideration during the delineation.

TABLE 2-1: Recent Precipitation Data

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Precipitation Data	Jul	Aug	Sep	Total
2023 Monthly Sum ^{1,3}	5.11	4.77	0.58*	10.46*
Normal Precipitation ^{2,3}	2.92 – 4.94	2.83 – 4.18	2.28 – 3.89	10.69 – 13.01
Monthly climatic condition	Above average	Above average	Below average*	Below average*

¹Monthly weather summary from weather station Pike Island (Lock and Dam), WV, 2023

2.2 Drainage Basins

The Project is within the Tuscarawas and Upper Ohio-Wheeling drainage basins, corresponding to 8-digit Hydrologic Unit Codes (HUCs) 05040001 and 05030106, respectively. More specifically the Project crosses the four watersheds outlined in Table 2-2 (USGS, 2023a).

TABLE 2-2: Watersheds Crossed by the Project

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

HUC 12-Digit Code	HUC 12-Digit Name
05040001-15-01	Clear Fork
05040001-15-02	Standingstone Fork
05040001-14-02	Brushy Fork
05030106-03-01	Crabapple Creek
0 11000 0000	

Source: USGS, 2023a

²USDA WETS Station Climate Data 1971-2000 (USDA, 2023)

³Displayed in inches

^{*}Data is missing therefore this is an underestimate

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 USEPA, 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, 2023)
- Topographic maps (USGS, 2023b)
- NRCS Web Soil Survey (USDA-NRCS, 2022)
- National Wetland Inventory (USFWS, 2023)
- National Hydrography Dataset (USGS, 2023a)

According to the NRCS soil survey of Harrison County (USDA-NRCS, 2022), the ESB consists of 33 soil map units (Figures 2-1 to 2-39). Of these, 22 units are listed as nonhydric, ten are predominantly nonhydric, and one is predominantly hydric (Table 3-1). Hydric or predominantly hydric soils comprise two 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

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Soil type	Soil type description	Hydric status	Acres within ESB
AbC2	Aaron silty clay loam, 6 to 15 percent slopes, eroded	Not Hydric	4.13
Bhv1D	Bethesda silt loam, 8 to 25 percent slopes, reclaimed	Predominantly Non-Hydric	2.57
BnD	Berks-Guernsey complex, 15 to 25 percent slopes	Not Hydric	0.74
BnE	Berks-Guernsey complex, 25 to 40 percent slopes	Not Hydric	6.33
CnD	Coshocton silt loam, 15 to 25 percent slopes	Not Hydric	8.32
FcA	Fitchville silt loam, 0 to 3 percent slopes	Predominantly Non-Hydric	2.80
FcB	Fitchville silt loam, 3 to 8 percent slopes	Predominantly Non-Hydric	0.22
GnB	Gilpin silt loam, 3 to 8 percent slopes	Not Hydric	1.39
GnC	Gilpin silt loam, 8 to 15 percent slopes	Not Hydric	2.35
GpC	Gilpin-Lowell complex, 6 to 15 percent slopes	Not Hydric	1.30
GtC	Guernsey silt loam, 8 to 15 percent slopes	Not Hydric	3.32
GuD2	Guernsey silty clay loam, 15 to 25 percent slopes, eroded	Not Hydric	44.79
GuE2	Guernsey silty clay loam, 25 to 40 percent slopes, eroded	Not Hydric	35.21
LnC	Lowell silt loam, 8 to 15 percent slopes	Not Hydric	4.79
LoD2	Lowell silty clay loam, 15 to 25 percent slopes, eroded	Not Hydric	8.07
Me	Melvin silt loam, frequently ponded, 0 to 3 percent slopes	Predominantly Hydric	4.94
Mwc3B	Morristown silty clay loam, 0 to 8 percent slopes, reclaimed	Not Hydric	2.62
Mwc3D	Morristown silty clay loam, 8 to 25 percent slopes, reclaimed	Not Hydric	38.05
Mwc3F	Morristown silty clay loam, 25 to 70 percent slopes, reclaimed	Not Hydric	6.85
Mwd3B	Morristown silty clay loam, 0 to 8 percent slopes, reclaimed, highwall	Not Hydric	0.17

Mwf6B	Morristown channery silty clay loam, 0 to 8 percent slopes, unreclaimed	Predominantly Non-Hydric	0.22
Mwf6D	Morristown channery silty clay loam, 8 to 25 percent slopes, unreclaimed	Predominantly Non-Hydric	6.53
Mwf6F	Morristown channery silty clay loam, 25 to 70 percent slopes, unreclaimed	Predominantly Non-Hydric	6.51
Mwg6D	Morristown channery silty clay loam, 8 to 25 percent slopes, unreclaimed, highwall	Predominantly Non-Hydric	0.55
Mwg6F	Morristown channery silty clay loam, 25 to 70 percent slopes, unreclaimed, highwall	Predominantly Non-Hydric	15.74
No	Nolin silt loam, 0 to 3 percent slopes, occasionally flooded	Predominantly Non-Hydric	1.55
Or	Orrville silt loam, 0 to 3 percent slopes, occasionally flooded	Predominantly Non-Hydric	6.18
RcB	Richland silt loam, 2 to 6 percent slopes	Not Hydric	0.52
UpC2	Upshur silty clay loam, 6 to 15 percent slopes, eroded	Not Hydric	0.51
W	Water	Not Hydric	0.10
WmE	Westmoreland-Coshocton complex, 25 to 40 percent slopes	Not Hydric	6.27
WnE	Westmoreland-Dekalb complex, 25 to 40 percent slopes	Not Hydric	11.09
WnF	Westmoreland-Dekalb complex, 40 to 70 percent slopes	Not Hydric	11.27

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 24 NWI features within the ESB (Figure 2-1 to 2-39; USFWS, 2023). This included palustrine emergent, 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

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Wetland		Count of	Acres
	Description	Mapped	within
Туре		Features	ESB ¹
PEM1c	Palustrine emergent, persistent, seasonally flooded	1	0.26
PUBG	Palustrine unconsolidated bottom, intermittently exposed	6	1.60
PUBGx	Palustrine unconsolidated bottom, intermittently exposed, excavated	5	1.38
R4SBC	Riverine intermittent streambed, seasonally flooded	8	1.10
R5UBH	Riverine unknown perennial unconsolidated bottom, permanently flooded	4	0.80
	Total	24	5.13

¹ Numbers have been rounded for presentation purposes. Thus, the total may not reflect the exact sum of the addends.

As shown on the FEMA floodplain panels (Figures 2-1 to 2-39), floodplains associated with Clear Fork, Standingstone Fork, and Brushy Fork cross the ESB (FEMA, 2023).

3.2 Field Survey Methodology

In October 2023, 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 Qualitative Habitat Evaluation Index (QHEI) forms and Headwater Habitat Evaluation Index (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 three 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 in a given year is indicated by whichever condition occurs earlier, and the end 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 (USACE, 2020). 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) Ohio Rapid Assessment Method (ORAM) for Wetlands 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 by walking the ESB and evaluating for wetlands and other waterbodies. A total of 33 wetlands, 33 streams, and eight ponds were delineated and are displayed on the Wetlands and Waterbodies Delineation Map (Figures 3-1 to 3-39). Jacobs defaults to the USACE and OEPA for the final determination of hydrologic connectivity and jurisdiction.

4.1 Wetlands

Thirty-three wetlands totaling 10.17 acres, ranging in size from 0.01 to 1.72 acres, were delineated within the ESB. Thirty-two wetlands were identified as palustrine emergent (PEM) wetlands and one as a PEM/palustrine scrub/shrub (PSS) wetland complex. The reported wetland acreage only corresponds to areas delineated within the ESB, as many wetlands extended beyond the surveyed area.

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.

TABLE 4-1: Delineated Wetlands

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Watland ID	Loca	ation	Wetland	Acres	ORAM Score,
Wetland ID	Latitude	Longitude	Type ¹	within ESB	Category
Wetland BN-01	40.32778	-81.06189	PEM	0.25	28, Category 1
Wetland BN-02	40.32165	-81.06455	PEM	0.50	38.5, Category 2
Wetland BN-03	40.31847	-81.06568	PEM	0.02	28.5, Category 1
Wetland BN-04E	40.30657	-81.06458	PEM	0.01	41, Category 2
Wetland BN-04S	40.30654	-81.06453	PSS	<0.01	41, Category 2
Wetland BN-05	40.30011	-81.06675	PEM	0.51	32.5, Category 2
Wetland BN-06	40.29497	-81.06882	PEM	0.01	10.5, Category 1
Wetland BN-07	40.29331	-81.06684	PEM	0.01	18, Category 1
Wetland BN-08	40.28852	-81.06835	PEM	0.49	18.5, Category 1
Wetland BN-09	40.28069	-81.06904	PEM	0.38	26.5, Category 1
Wetland BN-10	40.27487	-81.06973	PEM	0.02	33, Category 2
Wetland BN-11	40.26885	-81.06985	PEM	0.34	31.5, Category 2
Wetland BN-12	40.26551	-81.06997	PEM	0.15	28, Category 1
Wetland BN-13	40.26255	-81.06997	PEM	0.01	31, Category 2
Wetland BN-14	40.24427	-81.07085	PEM	0.06	27, Category 1
Wetland BN-15	40.23883	-81.07109	PEM	0.08	16, Category 1
Wetland BN-16	40.23100	-81.06863	PEM	0.30	34.5, Category 2
Wetland BN-17	40.23101	-81.06764	PEM	0.06	31.5, Category 2
Wetland BN-18	40.22906	-81.06732	PEM	0.79	36.5, Category 2
Wetland BN-19	40.22133	-81.06352	PEM	0.02	35, Category 2
Wetland BN-20	40.22108	-81.06306	PEM	0.15	22.5, Category 1
Wetland BN-21	40.21700	-81.06079	PEM	1.72	29, Category 1

TABLE 4-1: Delineated Wetlands

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Wetland ID	Loca	ation	Wetland	Acres	ORAM Score,
Wettand 1D	Latitude	Longitude	Type ¹	within ESB	Category
Wetland BN-22	40.21441	-81.05978	PEM	0.19	21.5, Category 1
Wetland BN-23	40.21219	-81.05723	PEM	0.55	27.5, Category 1
Wetland BN-24	40.21192	-81.05686	PEM	0.29	24, Category 1
Wetland BN-25	40.20543	-81.05042	PEM	0.99	39, Category 2
Wetland BN-26	40.20122	-81.04618	PEM	0.08	20.5, Category 1
Wetland BN-27	40.20038	-81.04568	PEM	0.02	16, Category 1
Wetland BN-28	40.19960	-81.04492	PEM	0.10	20, Category 1
Wetland BN-29	40.19870	-81.04358	PEM	0.29	20, Category 1
Wetland BN-30	40.19802	-81.04285	PEM	0.12	22, Category 1
Wetland BN-31	40.19736	-81.04250	PEM	1.58	32, Category 2
Wetland BN-32	40.19392	-81.03632	PEM	0.03	20.5, Category 1
Wetland BN-33	40.19781	-81.03349	PEM	0.02	14.5, Category 1

¹Cowardin et al. 1979.

4.1.1 Wetland ORAM Results

Twenty-one Category 1 wetlands and 12 Category 2 wetlands were identified within the ESB. No Category 3 wetlands were identified within the ESB. Table 4-2 provides ORAM summary information regarding wetlands identified within the ESB and completed ORAM forms are included in Appendix C.

The 21 Category 1 wetlands were all PEM wetlands. These wetlands were classified as Category 1 wetlands based on ORAM scores ranging from 10.5 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 12 Category 2 wetlands included 11 PEM wetlands and one PEM/PSS wetland. These wetlands were classified as Category 2 wetlands based on ORAM scores ranging from 31 to 41. Generally, the Category 2 wetlands exhibited medium upland buffers, very low to moderately high intensity surrounding land use, sparse to moderate percentage of invasive species, and had habitat and hydrology generally recovered or recovering from previous manipulation due to clearcutting, shrub/sapling removal, and other disturbances.

No Category 3 wetlands were identified within the ESB.

TABLE 4-2: ORAM Wetland Summary

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

	<u> </u>			,	
Wetland	C	RAM Category	1	Number of	Acreage
Type	Category 1	Category 2	Category 3	Wetlands	within ESB
PEM	21	11	0	32	10.15
PEM/PSS	0	1	0	1	0.02
Totals	21	12	0	33	10.17

4.2 Streams

Thirty-three streams were identified, totaling 5,873 linear feet within the ESB. Of the 33 streams, 17 were identified as ephemeral streams, 10 were intermittent streams, and six were perennial streams. Three streams had a designated use assigned by OEPA, two streams were assessed using the QHEI methodology (drainage area greater than one square mile), and 28 streams were assessed using the HHEI methodology (drainage area less than one square mile). The reported stream lengths only correspond to areas delineated within the ESB, as many streams extended beyond the surveyed area.

Completed QHEI forms and HHEI forms are provided in Appendix E and F, respectively. Representative photographs were taken of each stream during the field survey. Photos of designated use streams are provided in the photolog in Appendix D and photos of the remaining streams are appended to their respective stream forms in Appendix E and F. Detailed information for each delineated stream is provided in Table 4-3.

TABLE 4-3: Delineated Streams

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project					
Stream ID	Loca Latitude	ation Longitude	Flow Regime ¹	Length (feet) within ESB	Average OHWM Width (feet)
Stream BN-01	40.32746	-81.06219	Perennial	276	30
Stream BN-02	40.31851	-81.06573	Ephemeral	140	2
Stream BN-03	40.31630	-81.06576	Ephemeral	156	2
Stream BN-04	40.30528	-81.06625	Ephemeral	150	1
Stream BN-05	40.30397	-81.06641	Ephemeral	30	1
Stream BN-06	40.30021	-81.06657	Ephemeral	51	1
Stream BN-07	40.29497	-81.06881	Intermittent	26	1
Stream BN-08	40.29312	-81.06826	Perennial	384	8
Stream BN-09	40.28835	-81.06816	Ephemeral	250	1
Stream BN-10	40.27692	-81.06958	Intermittent	156	3
Stream BN-11	40.27498	-81.06965	Intermittent	159	1
Stream BN-12	40.26915	-81.06978	Ephemeral	184	2
Stream BN-13	40.26810	-81.06997	Ephemeral	55	1
Stream BN-14	40.26260	-81.07009	Intermittent	114	3
Stream BN-15	40.25011	-81.07055	Intermittent	261	2
Stream BN-16	40.24409	-81.07083	Perennial	106	8
Stream BN-17	40.24000	-81.07112	Ephemeral	44	1
Stream BN-18	40.23906	-81.07121	Ephemeral	22	2
Stream BN-19	40.23115	-81.06771	Intermittent	654	3
Stream BN-20	40.22906	-81.06722	Intermittent	346	2
Stream BN-21	40.22378	-81.06407	Ephemeral	343	2
Stream BN-22	40.22121	-81.06347	Ephemeral	148	1.5
Stream BN-23	40.22099	-81.06314	Intermittent	477	3
Stream BN-24	40.21747	-81.06121	Ephemeral	114	2
Stream BN-25	40.21217	-81.05720	Perennial	294	3
Stream BN-26	40.20522	-81.05031	Perennial	374	8
Stream BN-27	40.20515	-81.04933	Ephemeral	0	3
Stream BN-28	40.20019	-81.04580	Ephemeral	64	1
Stream BN-29	40.19875	-81.04312	Ephemeral	30	2
Stream BN-30	40.19752	-81.04180	Intermittent	237	2.5

TABLE 4-3: Delineated Streams

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Stream ID	Location		Flow Regime ¹	Length (feet)	Average OHWM
Streamin	Latitude	Longitude	r low regime	within ESB	Width (feet)
Stream BN-31	40.19642	-81.04044	Perennial	50	3.5
Stream BN-32	40.19391	-81.03648	Intermittent	107	3
Stream BN-33	40.19603	-81.03597	Ephemeral	72	4

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

4.2.1 Ohio Administrative Code Chapter 3745-1 Designated Use

The OEPA has established water use designation for streams throughout Ohio as outlined in the Ohio Administrative Code (OAC) Chapter 3745-1-07. There were three delineated streams that had a designated use as regulated under OAC Chapter 3745-1 (Table 4-4). Jacobs defaults to the assigned OAC designations and therefore did not assess these streams. Representative photographs are provided in Appendix D.

TABLE 4-4: OAC Chapter 3745-1 Stream Designations

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Stream ID	Stream Name	OAC Designation
Stream BN-01	Clear Fork	Warmwater Habitat
Stream BN-08	Standingstone Fork	Warmwater Habitat
Stream BN-16	Brushy Fork	Warmwater Habitat

Source: OEPA 2017

4.2.2 QHEI Results

Two streams, totaling 668 linear feet within the ESB, were evaluated using QHEI methodology. One was classified as a Fair Warmwater stream and one as a Poor Warmwater stream. The completed QHEI forms are in Appendix E and Table 4-5 provides a summary of streams identified within the ESB that were assessed using the QHEI.

TABLE 4-5: QHEI Stream Summary

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Flow Regime		Number of	Length				
	Very Poor Warmwater	Poor Warmwater	Fair Warmwater	Good Warmwater	Excellent Warmwater	Streams	(feet) within ESB
Ephemeral	0	0	0	0	0	0	0
Intermittent	0	0	0	0	0	0	0
Perennial	0	1	1	0	0	2	668
Total	0	1	1	0	0	2	668

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

4.2.3 HHEI Results

Twenty-eight headwater streams, totaling 4,439 linear feet within the ESB, were evaluated using the HHEI methodology. Nineteen of the streams were categorized as modified Class I streams, one as a Class I stream, seven as modified Class II streams, and one as a Class II stream. Of the 28 streams, 17 were ephemeral streams, 10 were intermittent streams, and one was a perennial stream. Completed HHEI forms are provided in Appendix F and Table 4-6 provides a summary of streams identified within the ESB that were assessed using the HHEI.

TABLE 4-6: HHEI Stream Summary

Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Flow			Number of	Length (feet)				
Regime ¹	Modified Class I	Class I	Modified Class II	Class II	Modified Class III	Class III	Streams	within ESB
Ephemeral	13	1	3	0	0	0	17	1,853
Intermittent	6	0	3	1	0	0	10	2,536
Perennial	0	0	1	0	0	0	1	50
Total	19	1	7	1	0	0	28	4,439

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

4.3 Ponds/Open Water

Eight ponds were identified, totaling 1.94 acres within the ESB. Summary information for each delineated pond is provided in Table 4-7. Representative photographs and detailed information on pond conditions can be found in Appendix G. The reported pond acreage only corresponds to areas delineated within the ESB, as many ponds extended beyond the surveyed area.

TABLE 4-7: Delineated Ponds Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project

Pond ID	Lo	Acres	
POHO ID	Latitude	Longitude	within ESB
Pond BN-01	40.32214	-81.06428	0.22
Pond BN-02	40.30903	-81.06593	0.12
Pond BN-03	40.28901	-81.06833	0.46
Pond BN-04	40.25962	-81.07021	0.13
Pond BN-05	40.25210	-81.07062	0.11
Pond BN-06	40.21253	-81.05690	0.41
Pond BN-07	40.19774	-81.04134	0.00
Pond BN-08	40.19657	-81.04139	0.50

5 Conclusion

Jacobs conducted an environmental survey of the Buckeye Power-Nottingham 138 kV Transmission Line Rebuild Project in October 2023. A total of 33 wetlands, 33 streams, and eight ponds were delineated within the environmental survey boundary. The 33 wetlands totaled 10.17 acres within the ESB and consisted of 32 PEM wetlands and one PEM/PSS wetland complex. Of the 33 wetlands, 21 were identified as Category 1 wetlands and 12 were identified as Category 2 wetlands. No Category 3 wetlands were identified within the ESB.

The 33 streams identified totaled 5,873 linear feet within the ESB and included 17 ephemeral streams, 10 intermittent streams, and six perennial streams. Three streams had an OEPA designated use, two streams were assessed using QHEI methodology (drainage area greater than one square mile), and 28 streams were assessed using HHEI methodology (drainage area less than one square mile). Additionally, eight ponds were identified, totaling 1.94 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.

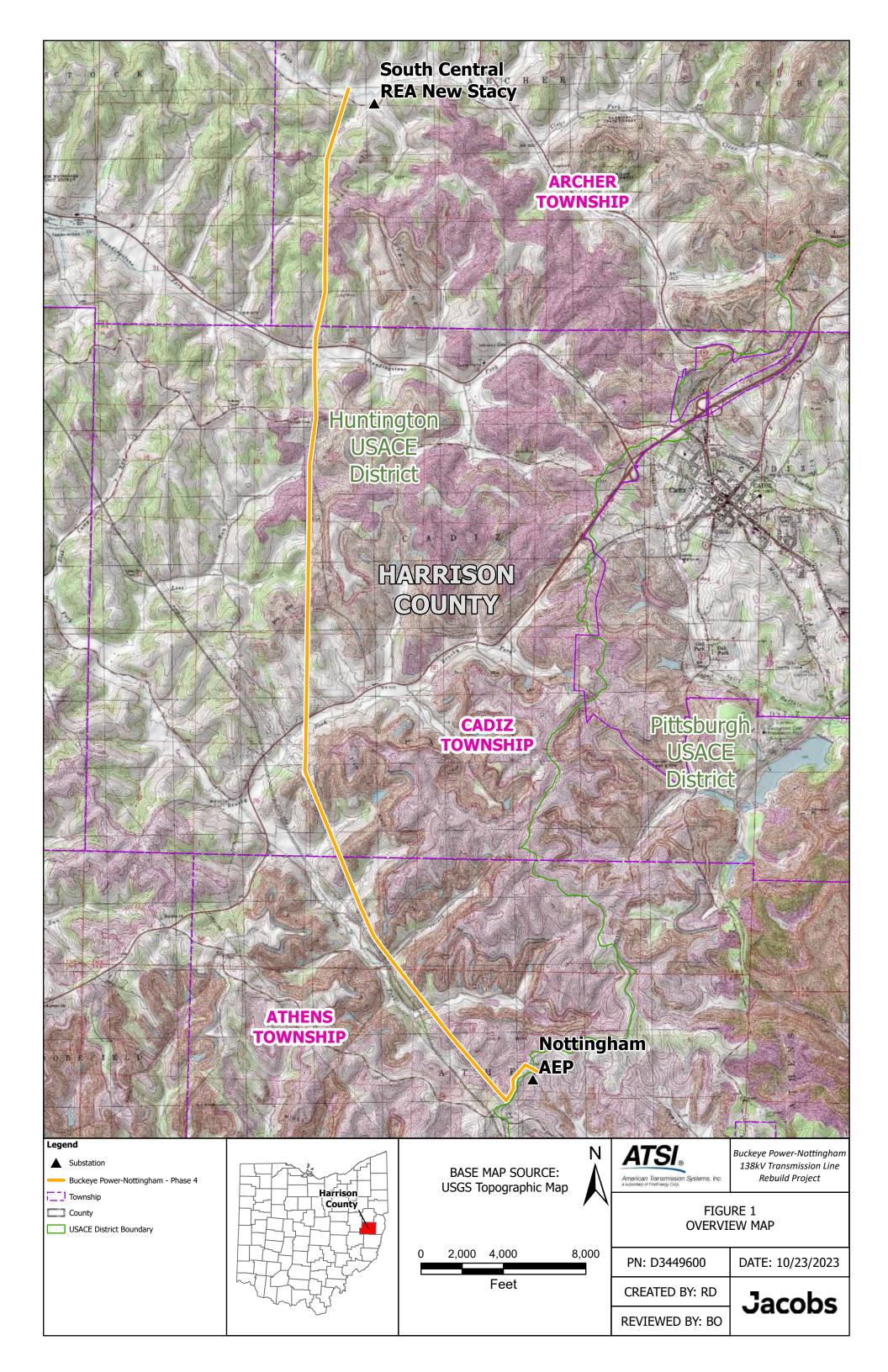
The wetland and waterbodies field survey results presented within this Report apply to the site conditions at the time of our assessment. Changes within the environmental survey boundary that may occur with time due to natural processes or human impacts at the project site or on adjacent properties, 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 scientific research 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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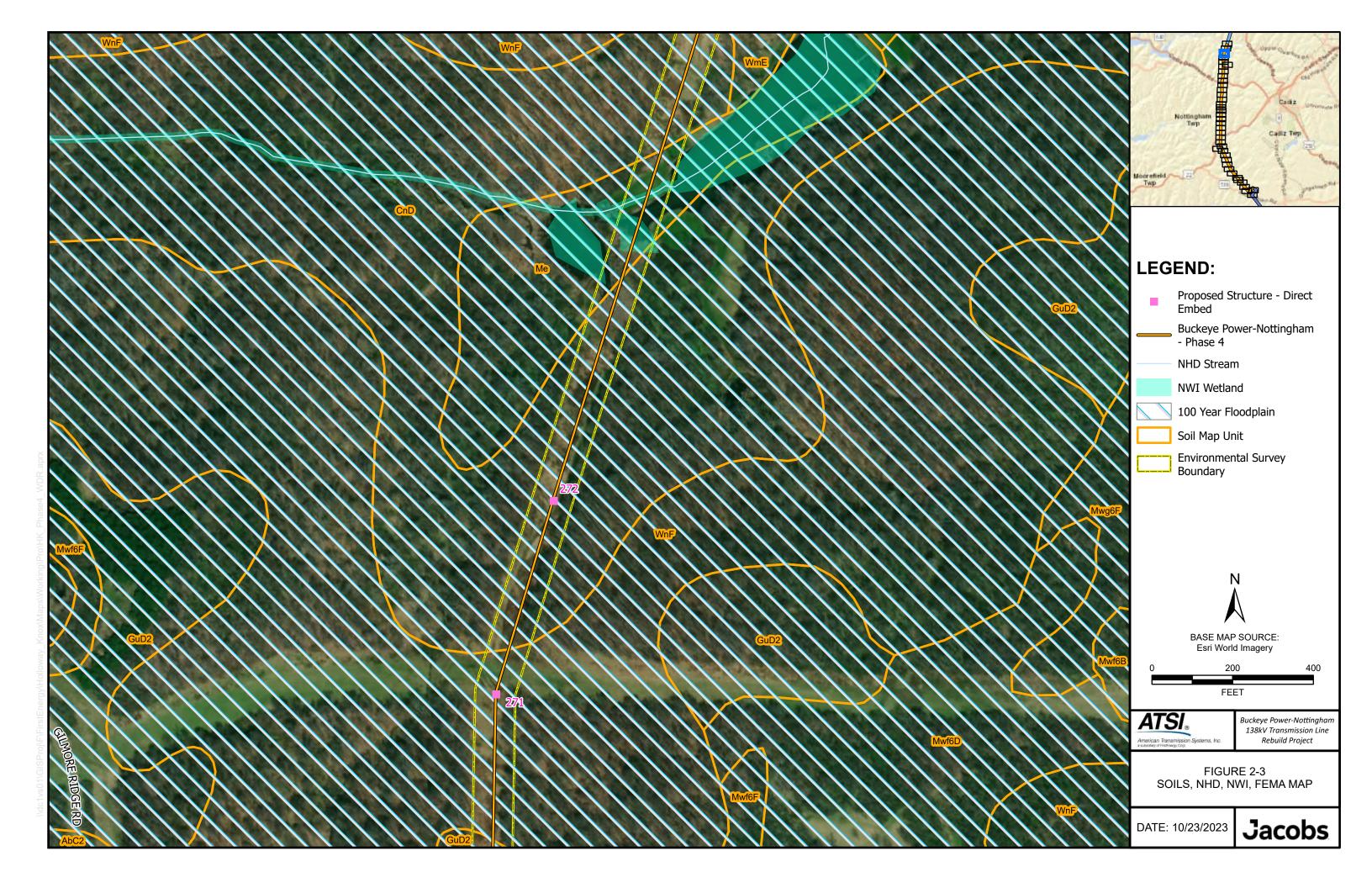
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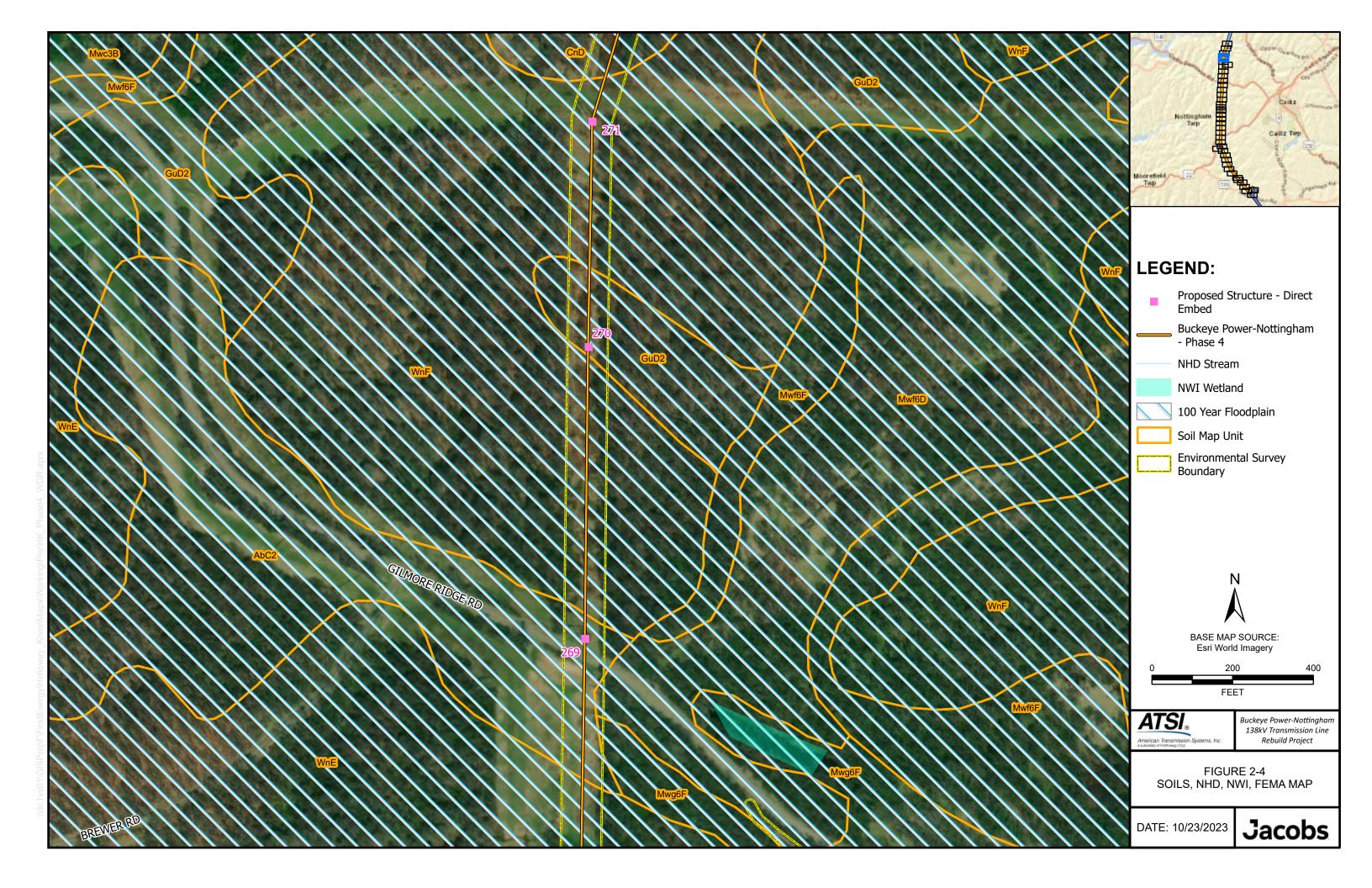


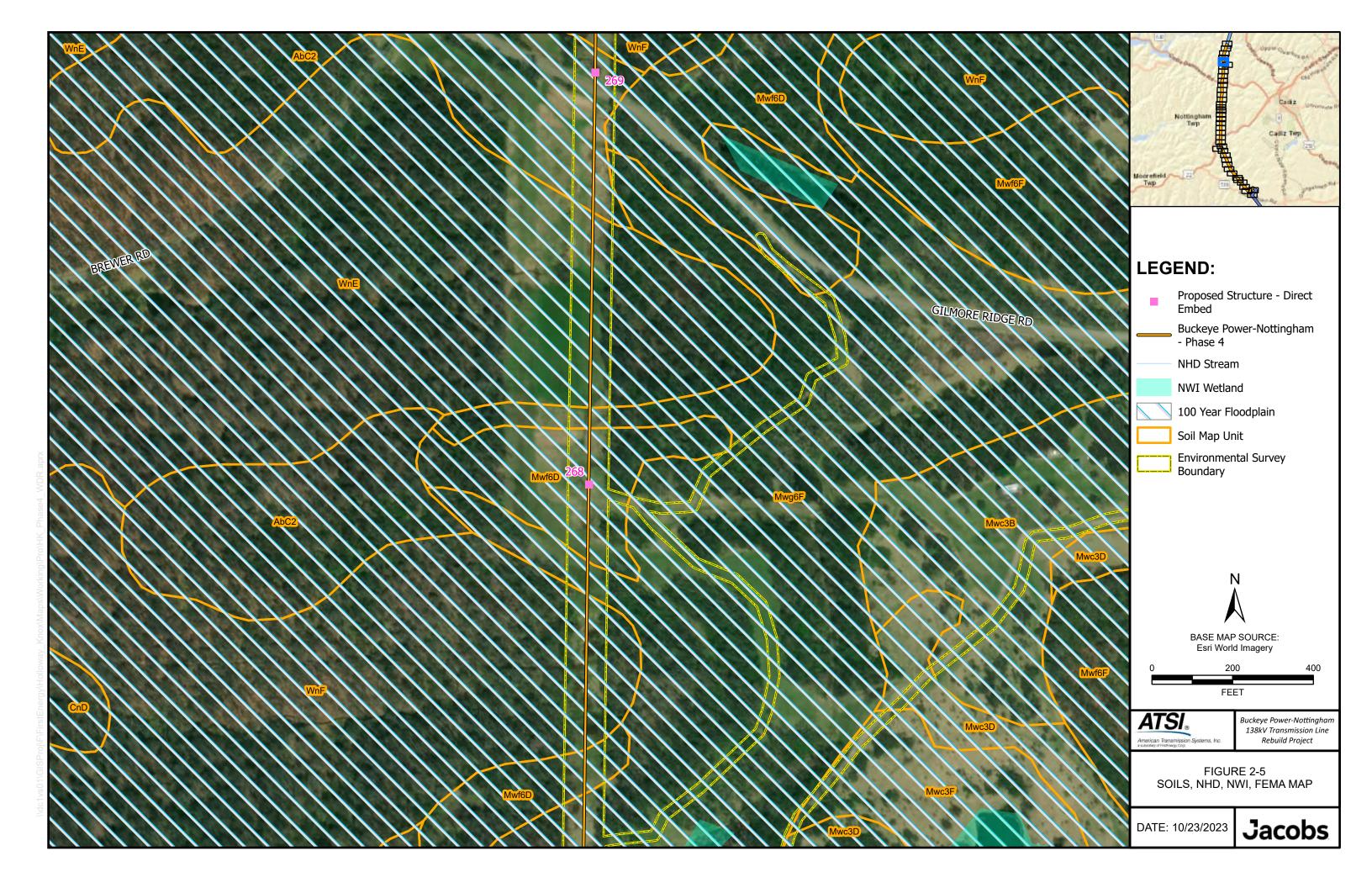


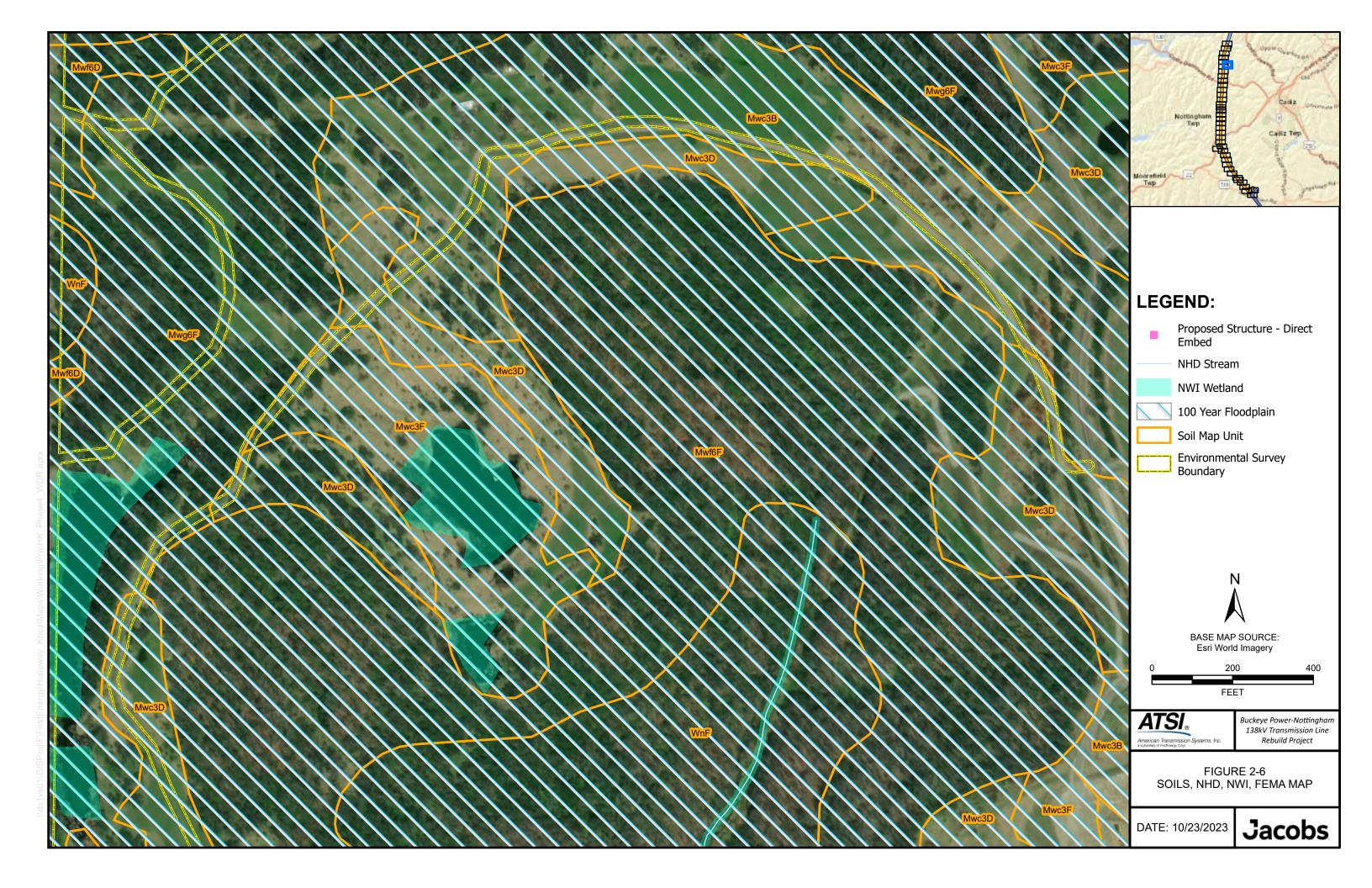


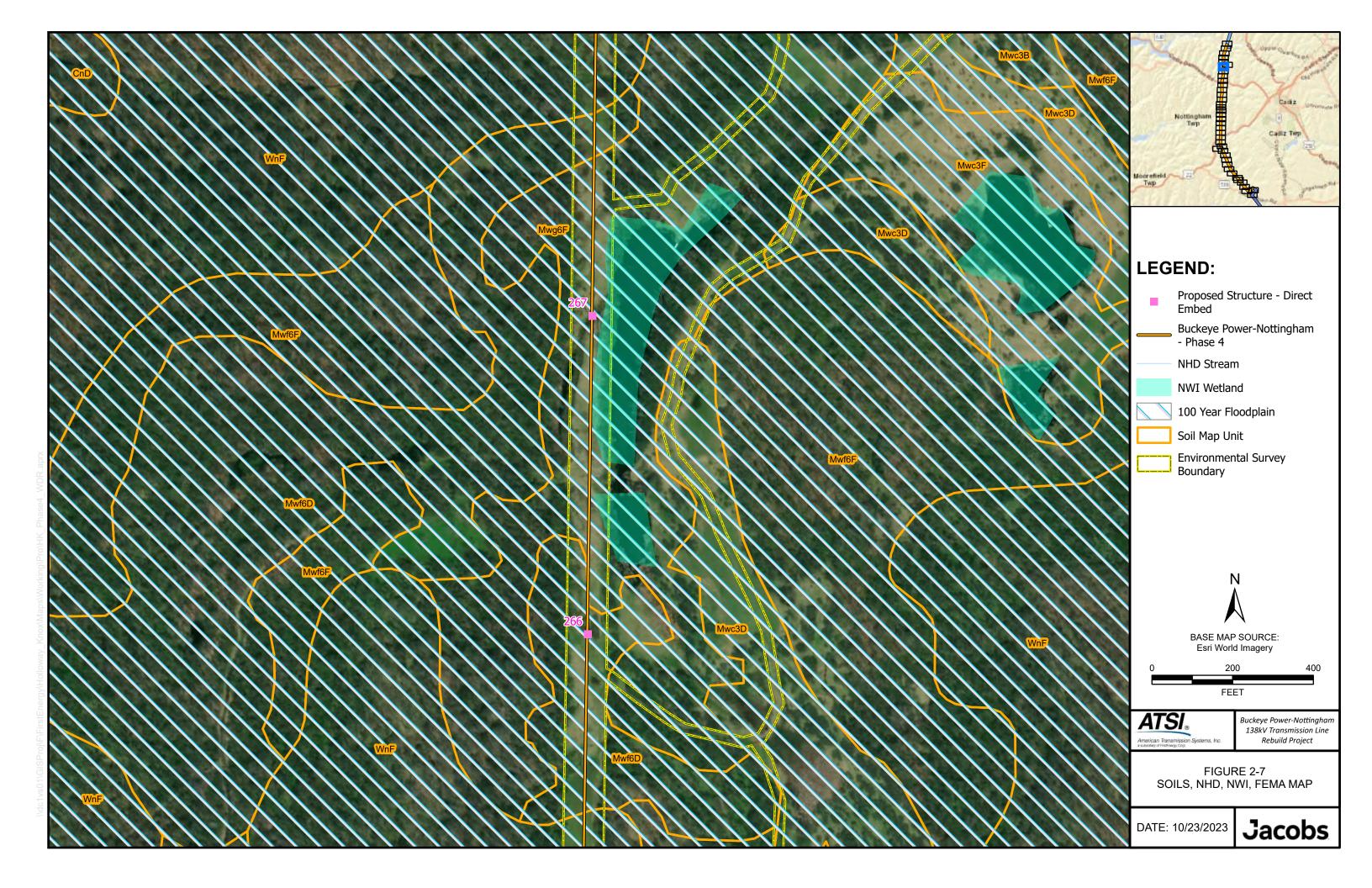


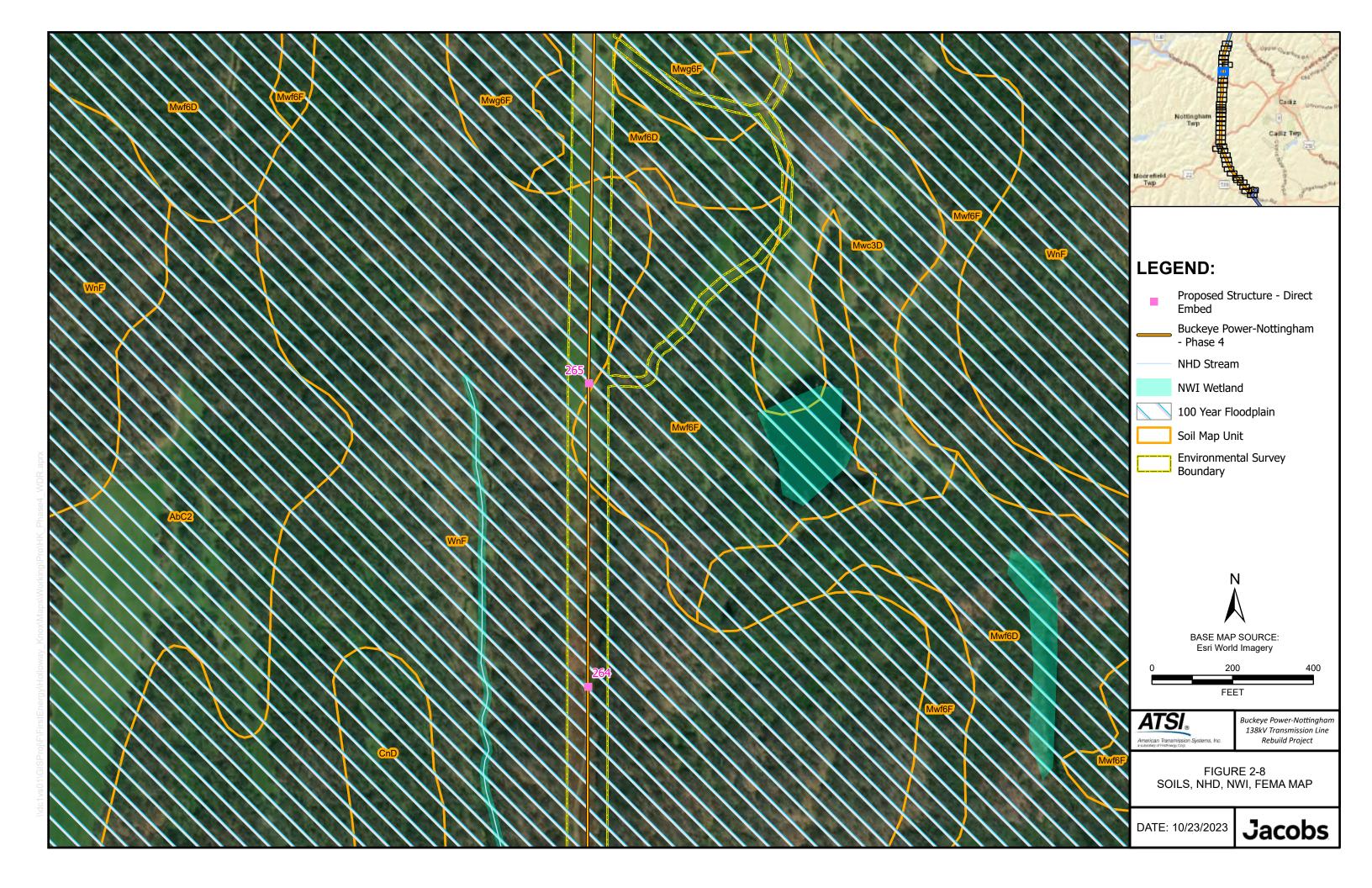


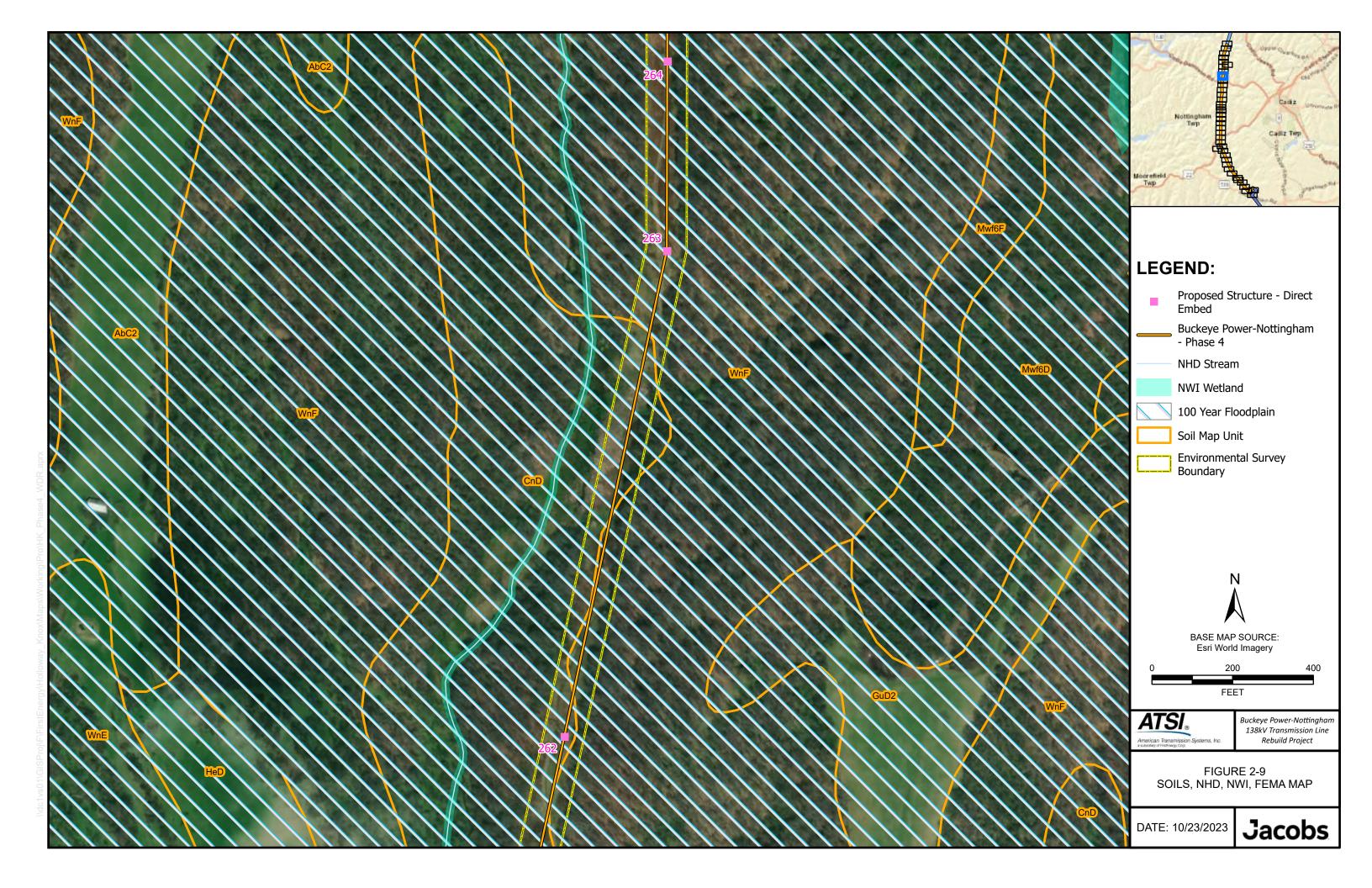


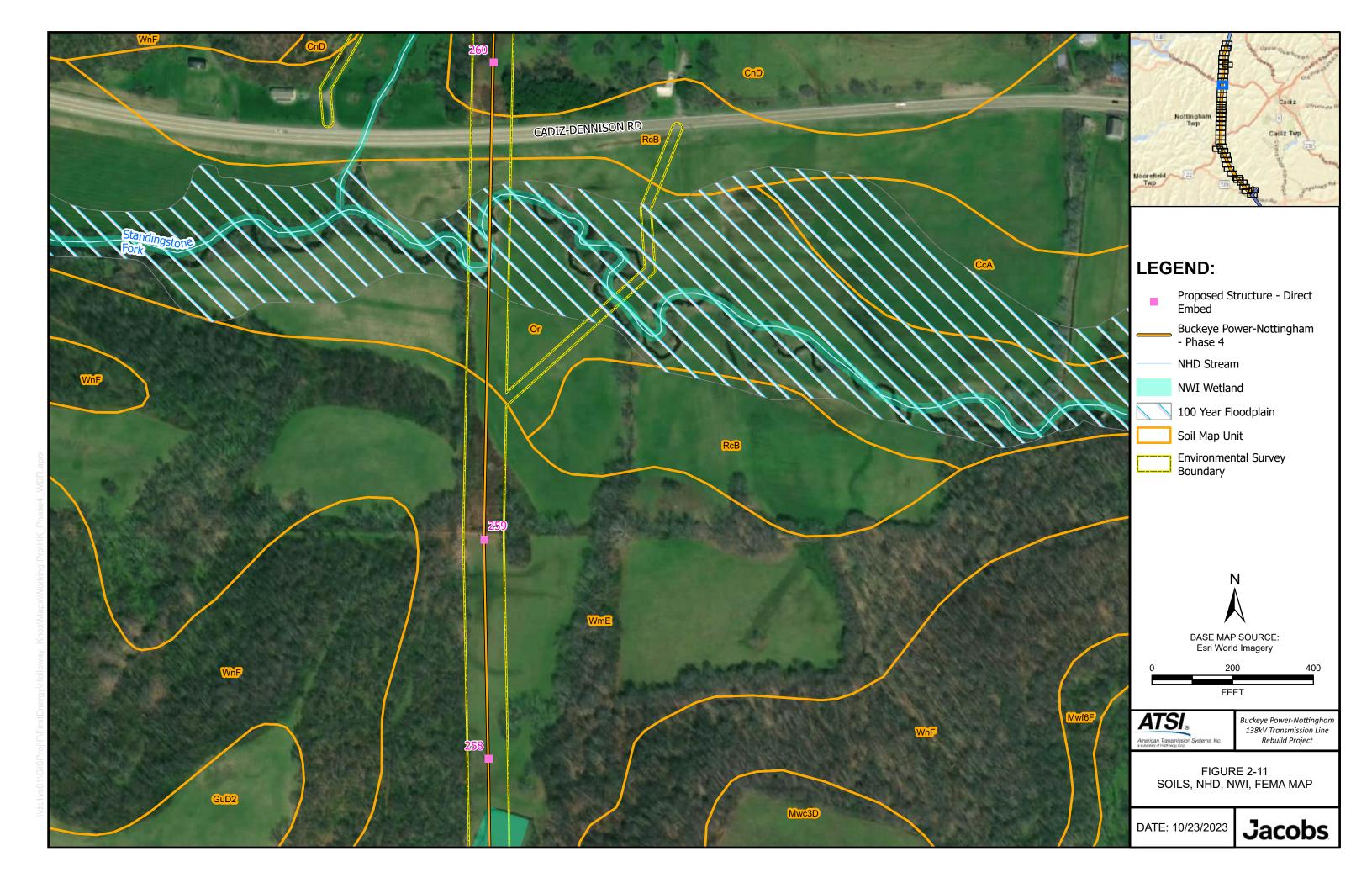














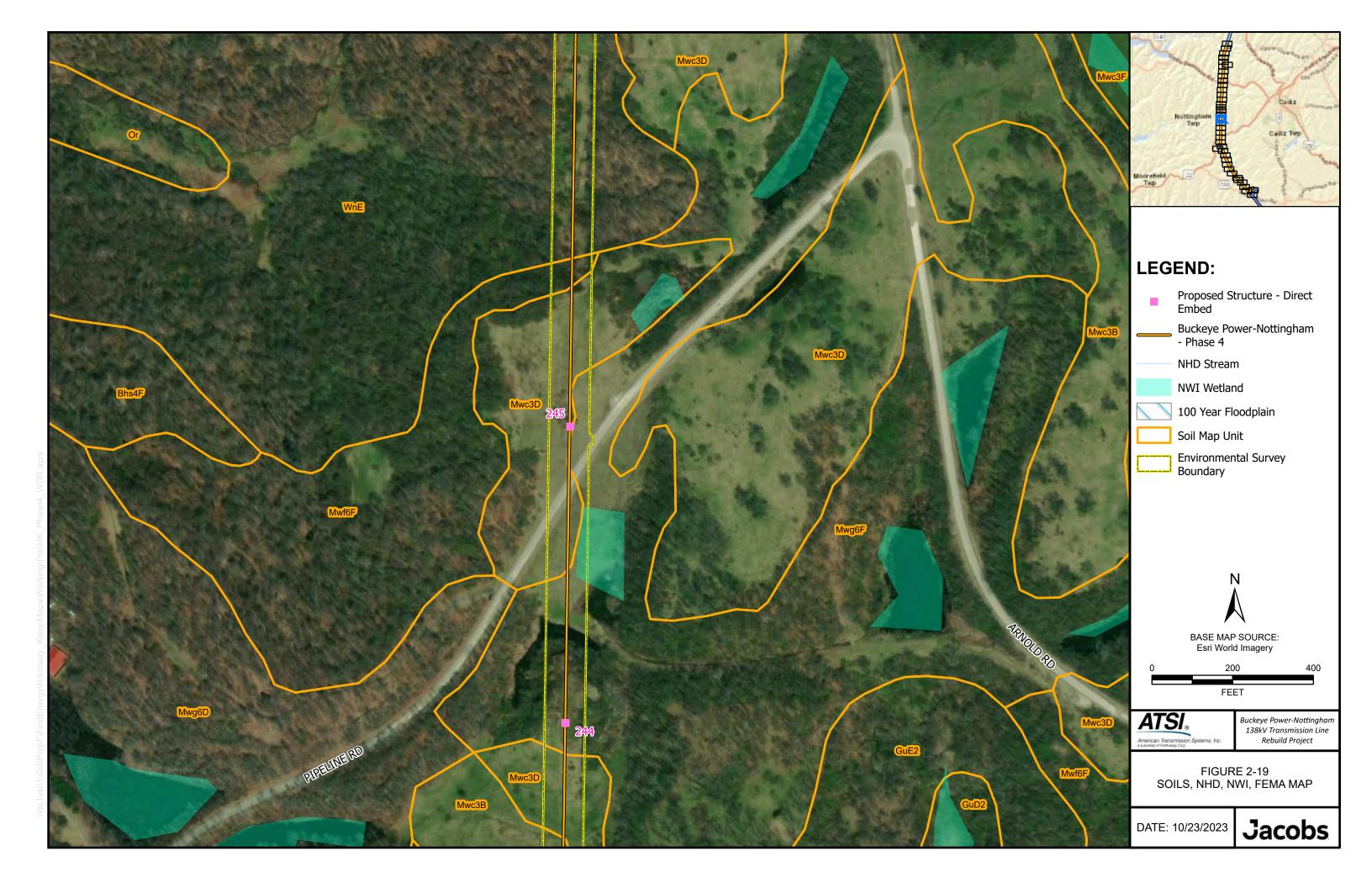










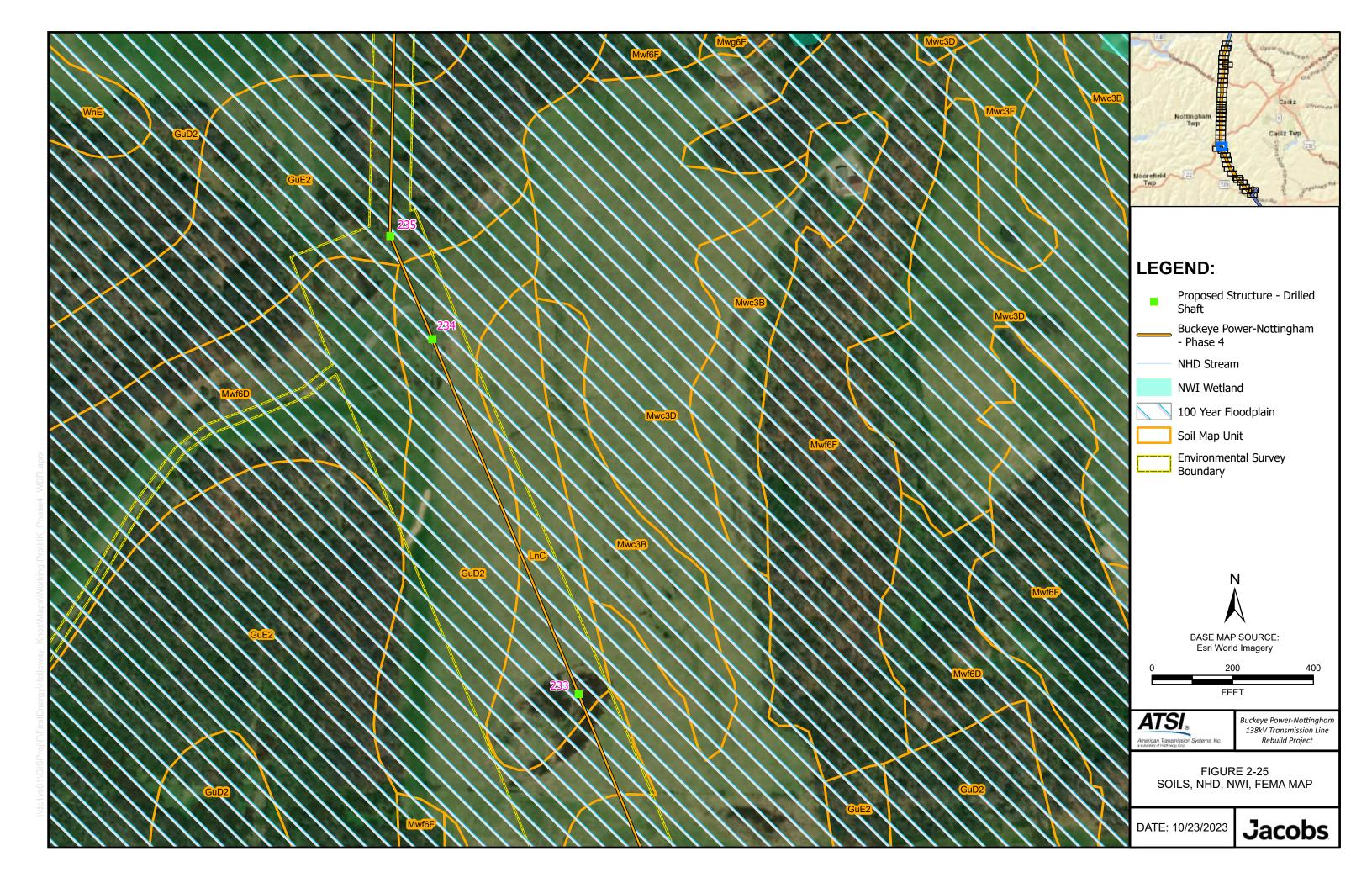




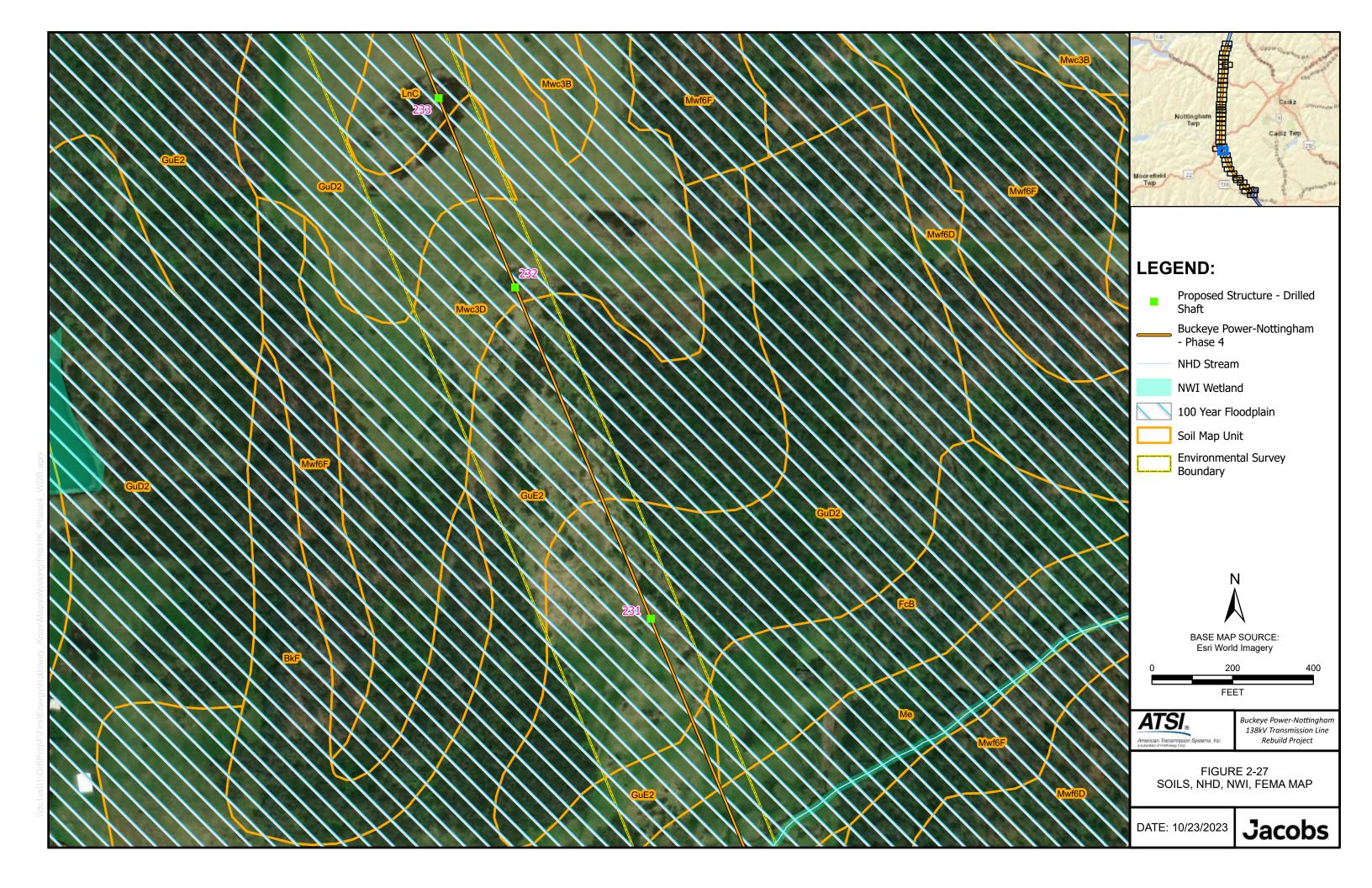


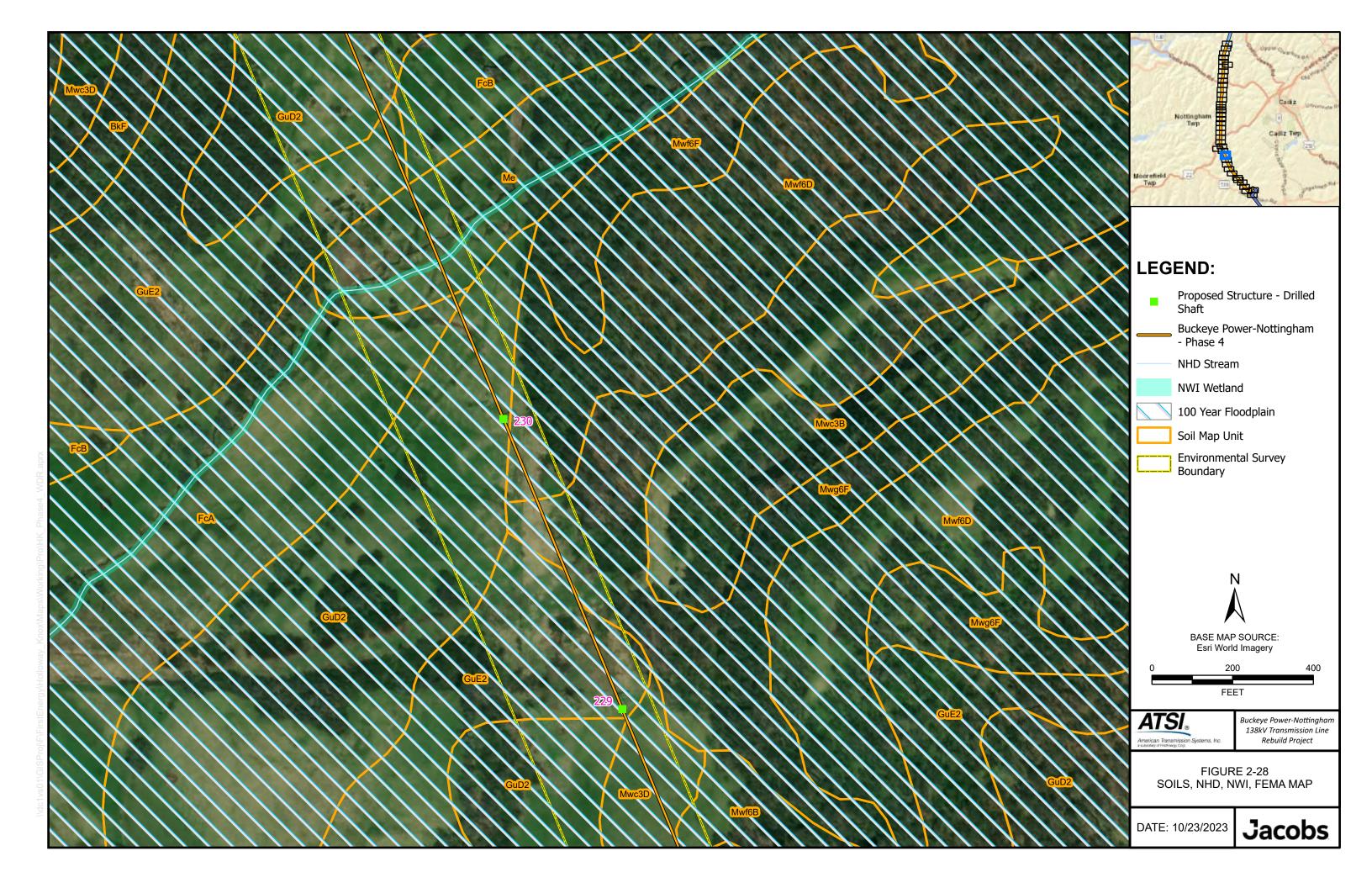


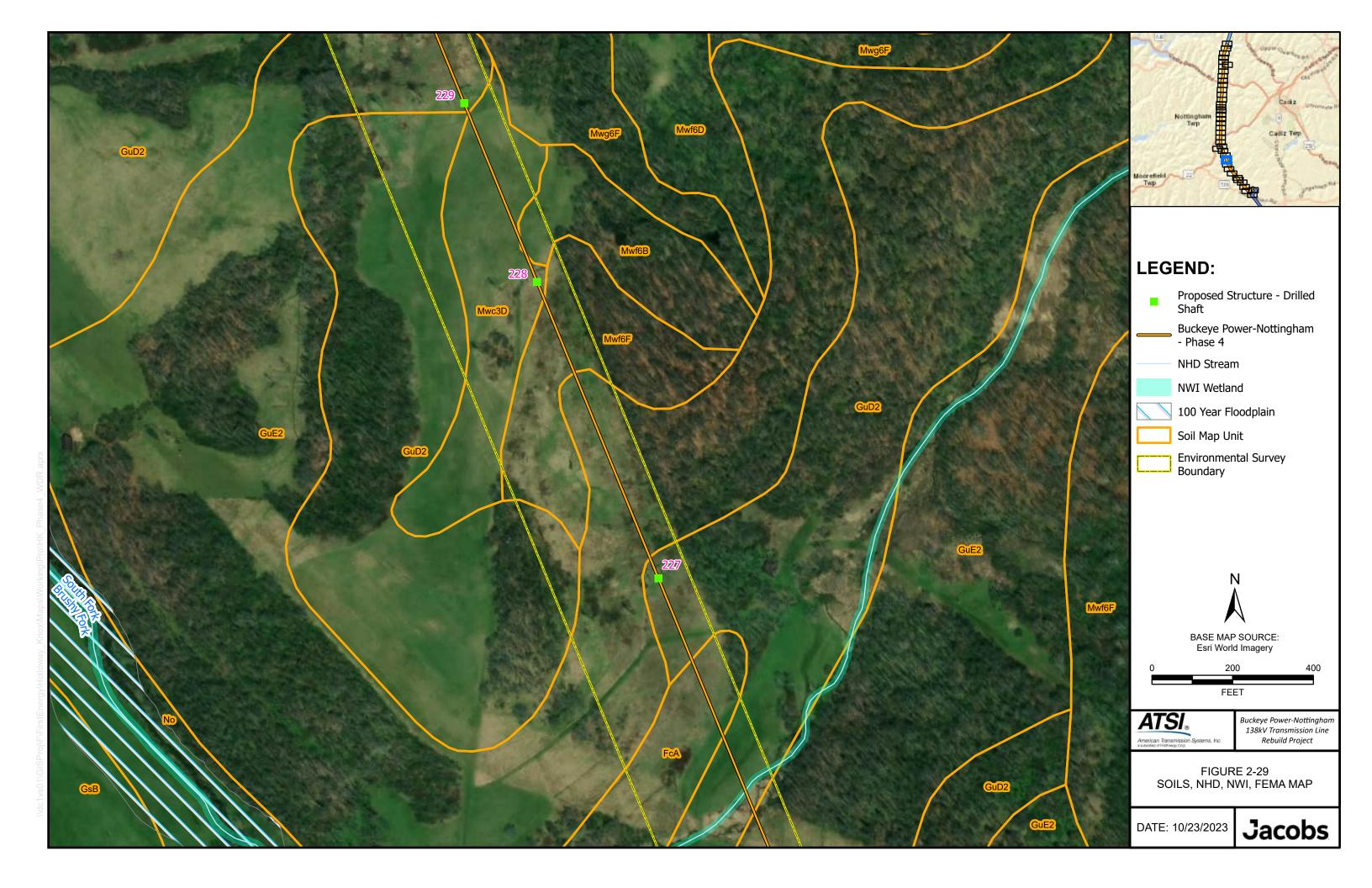








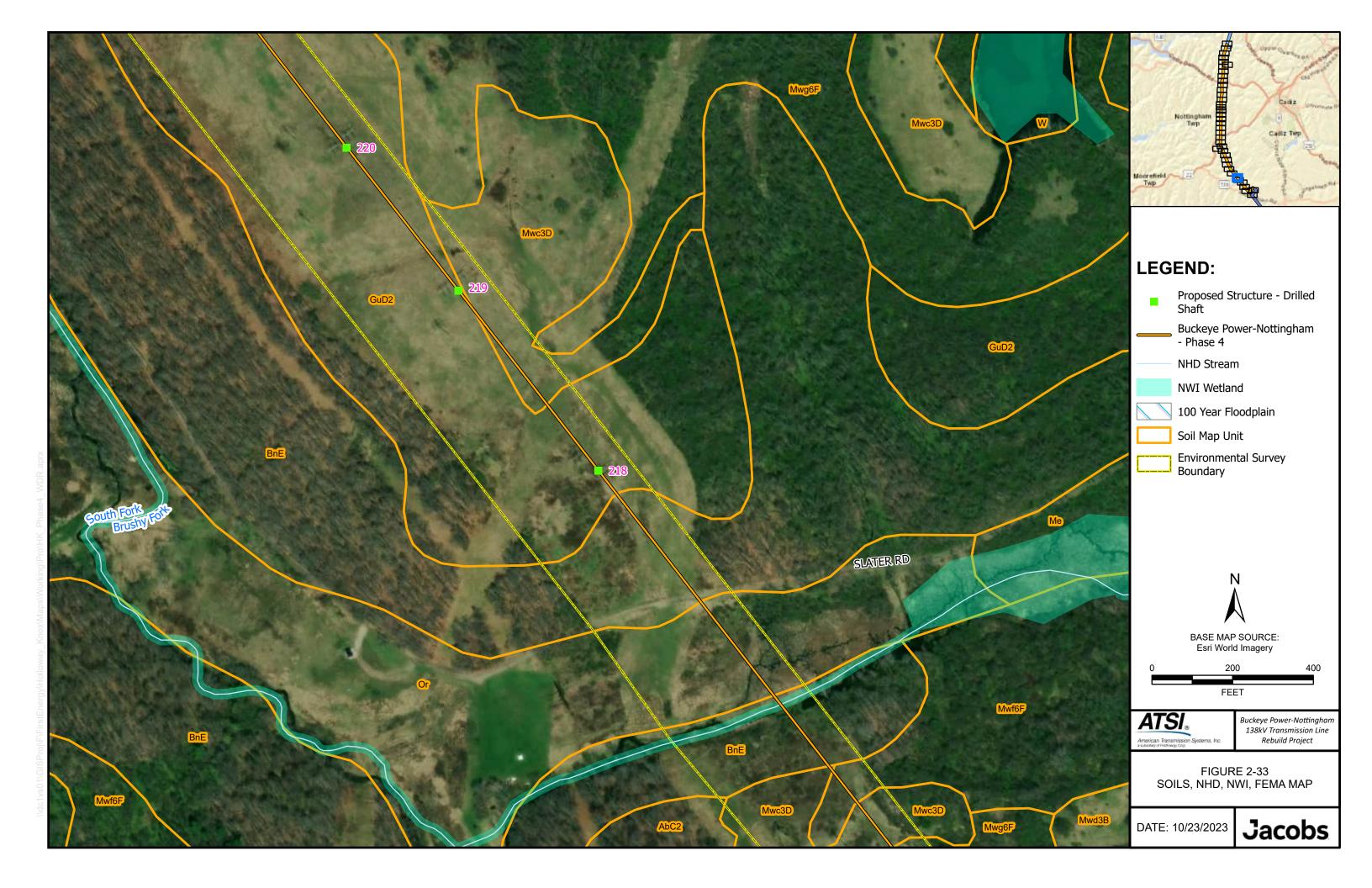






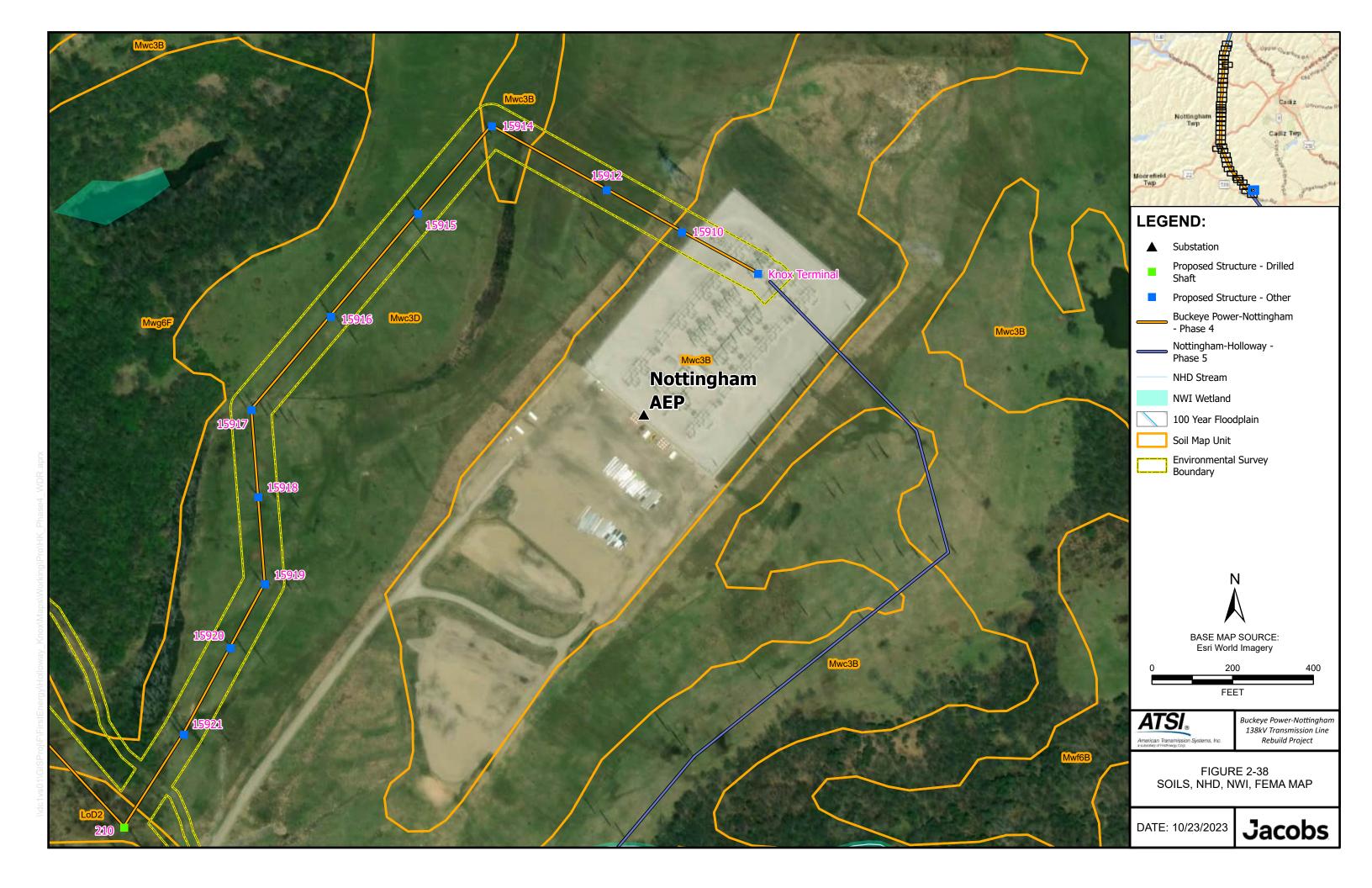




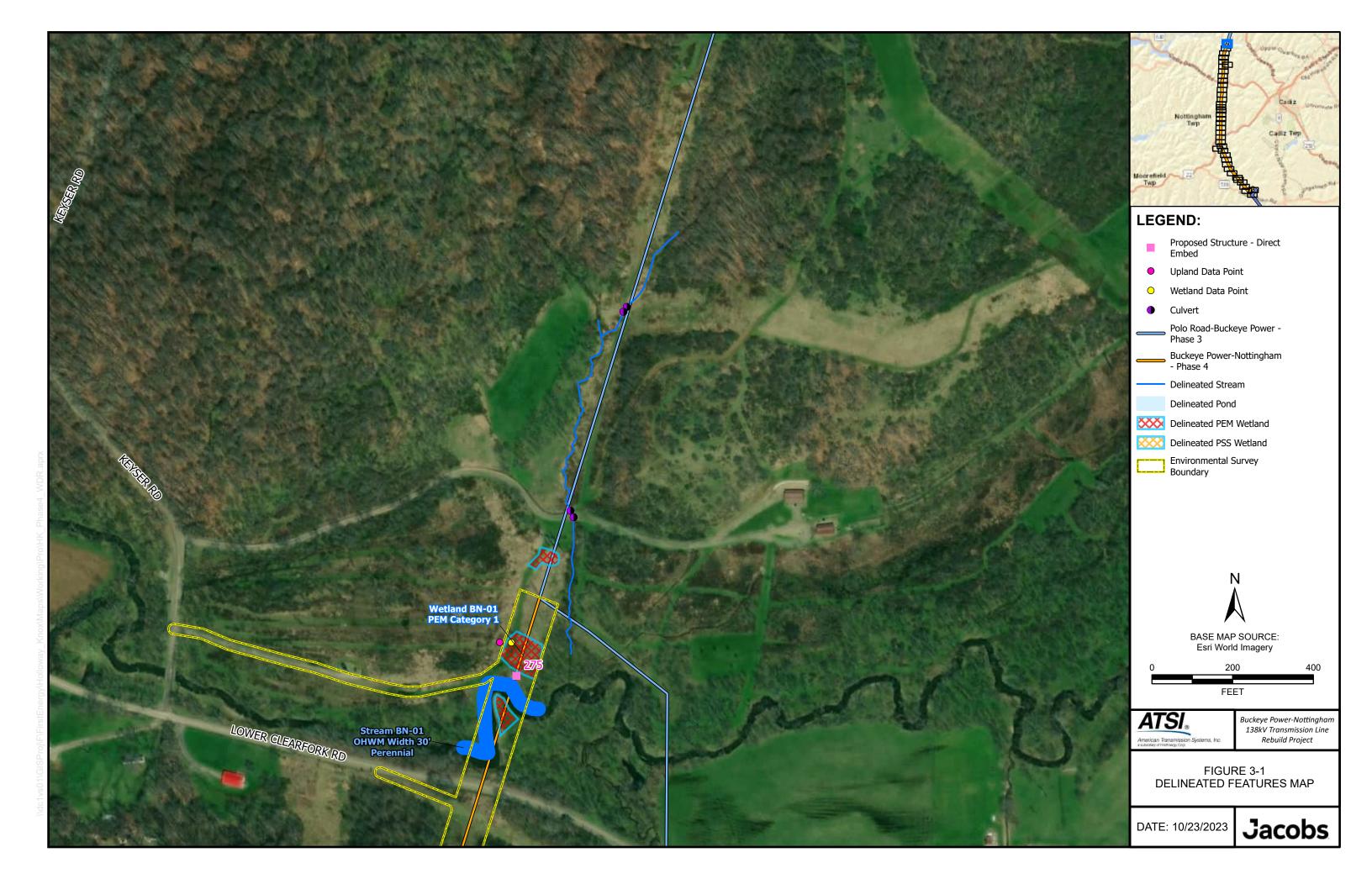




















































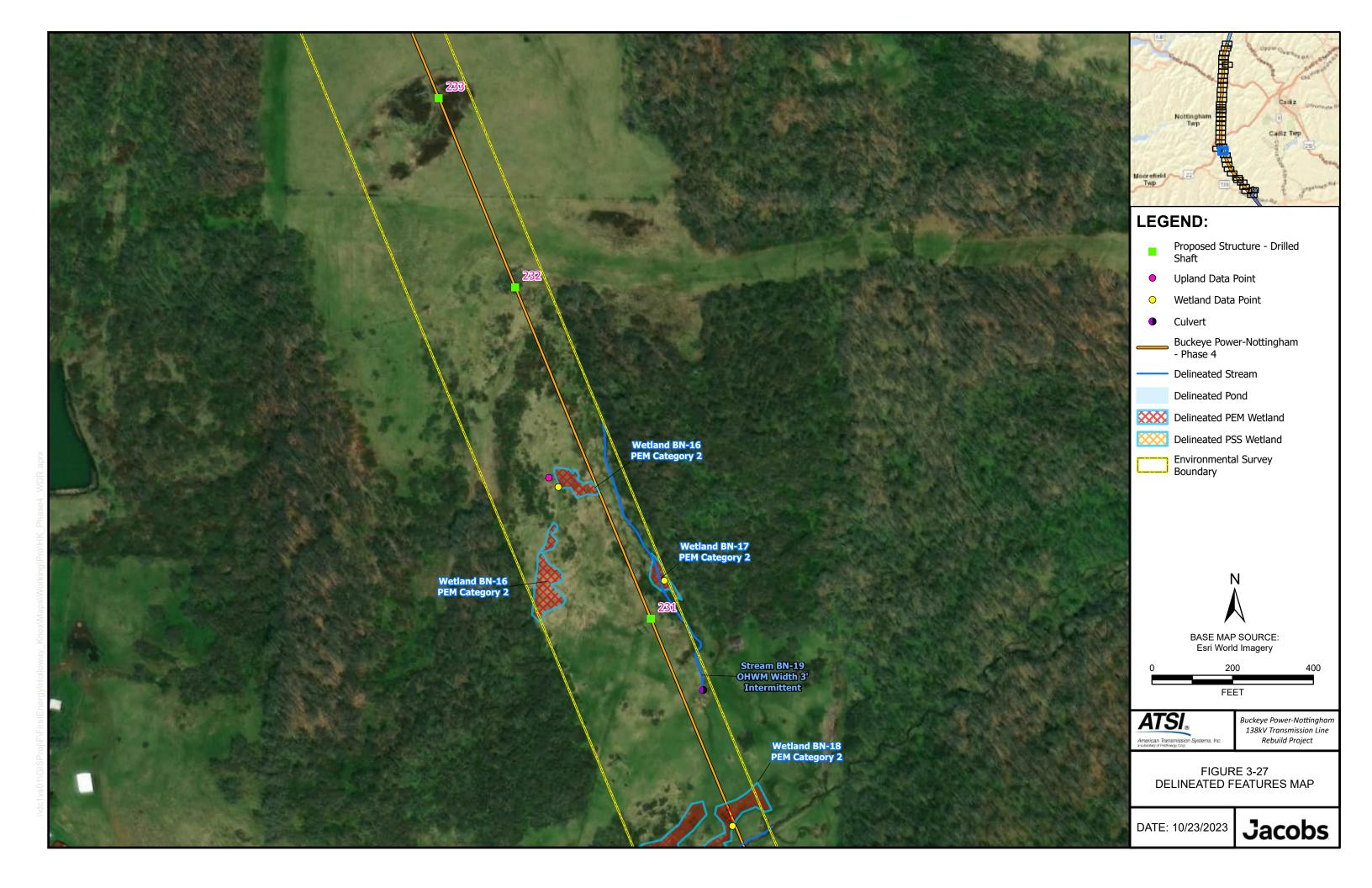


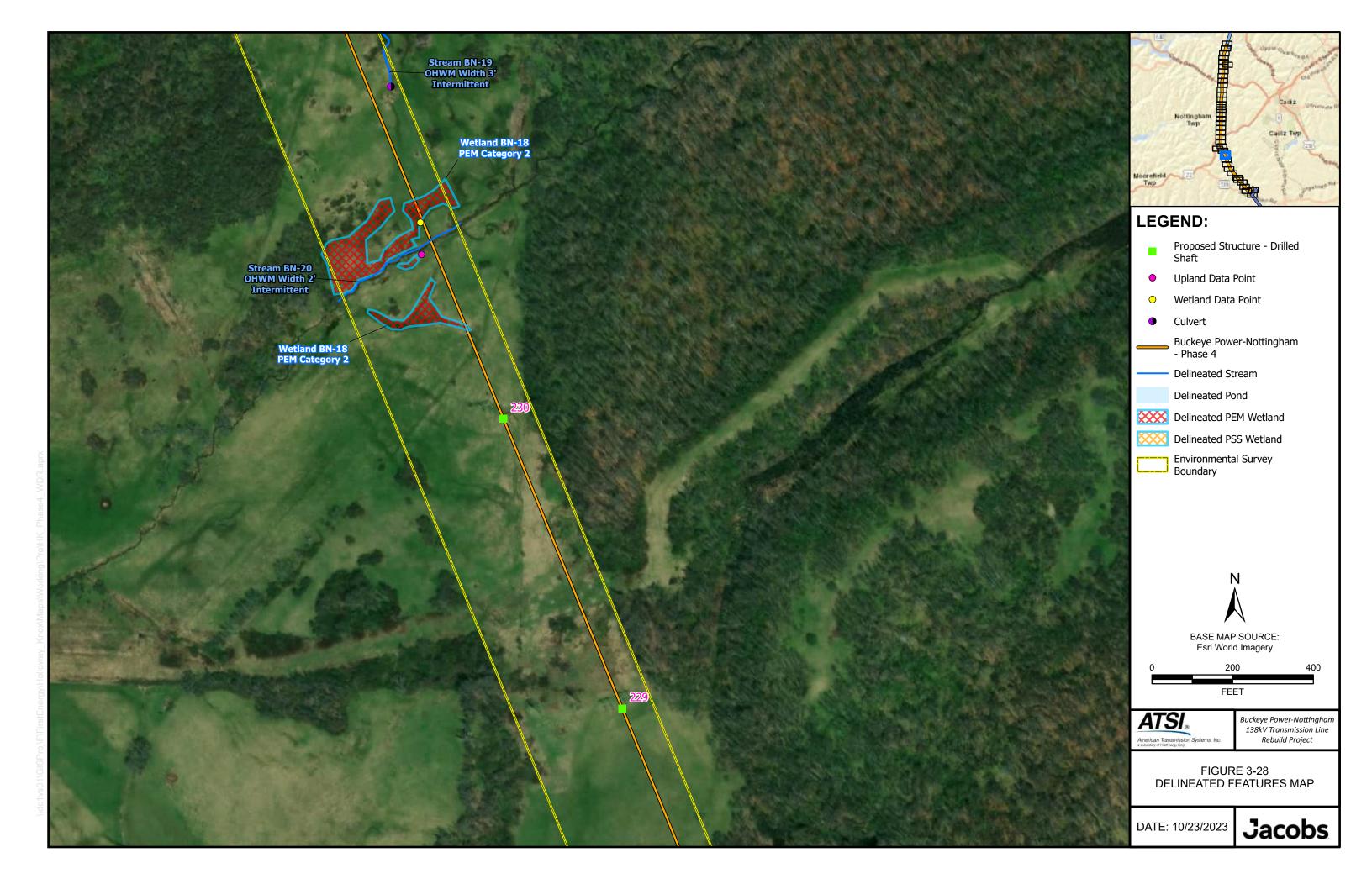












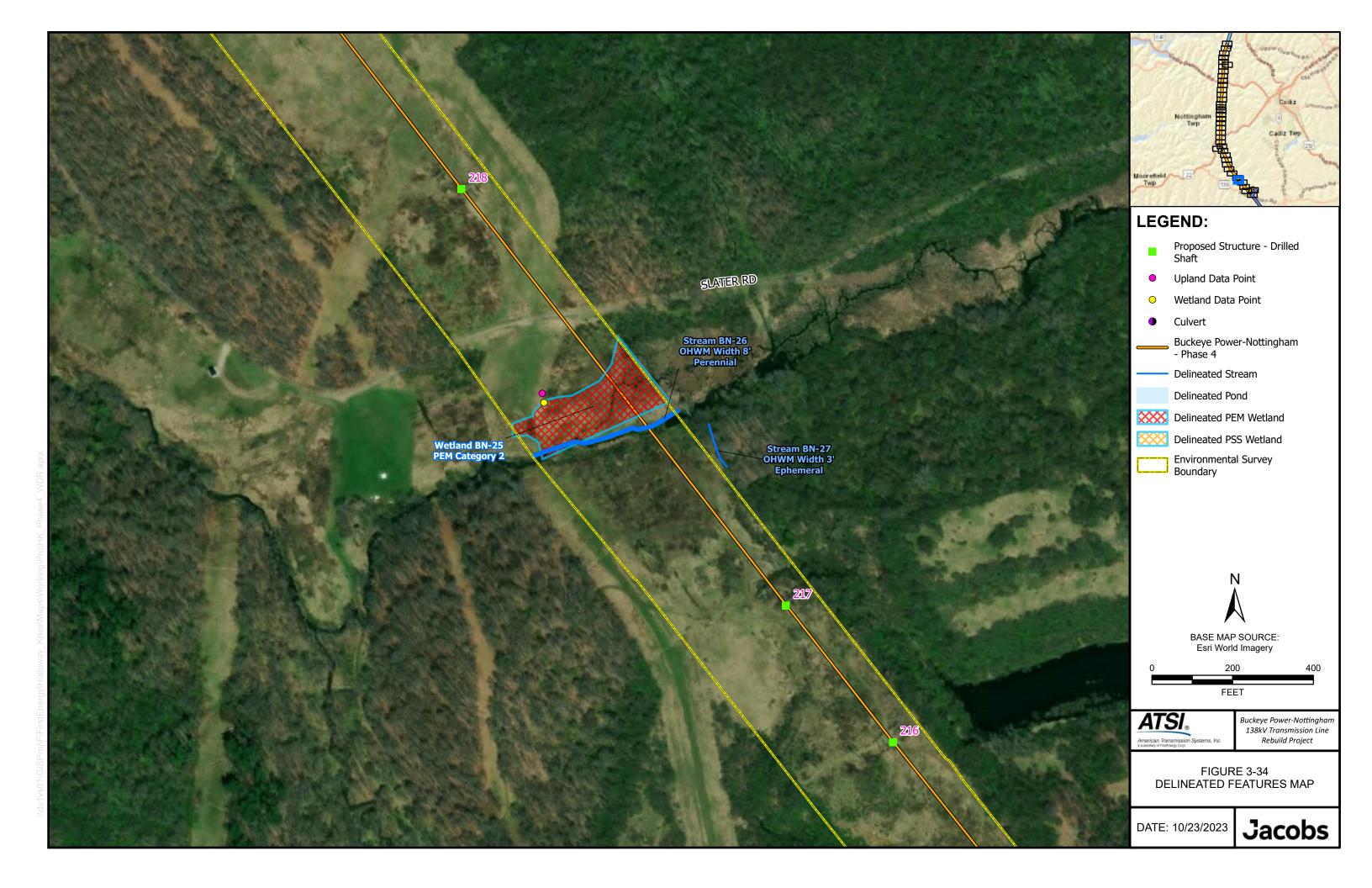






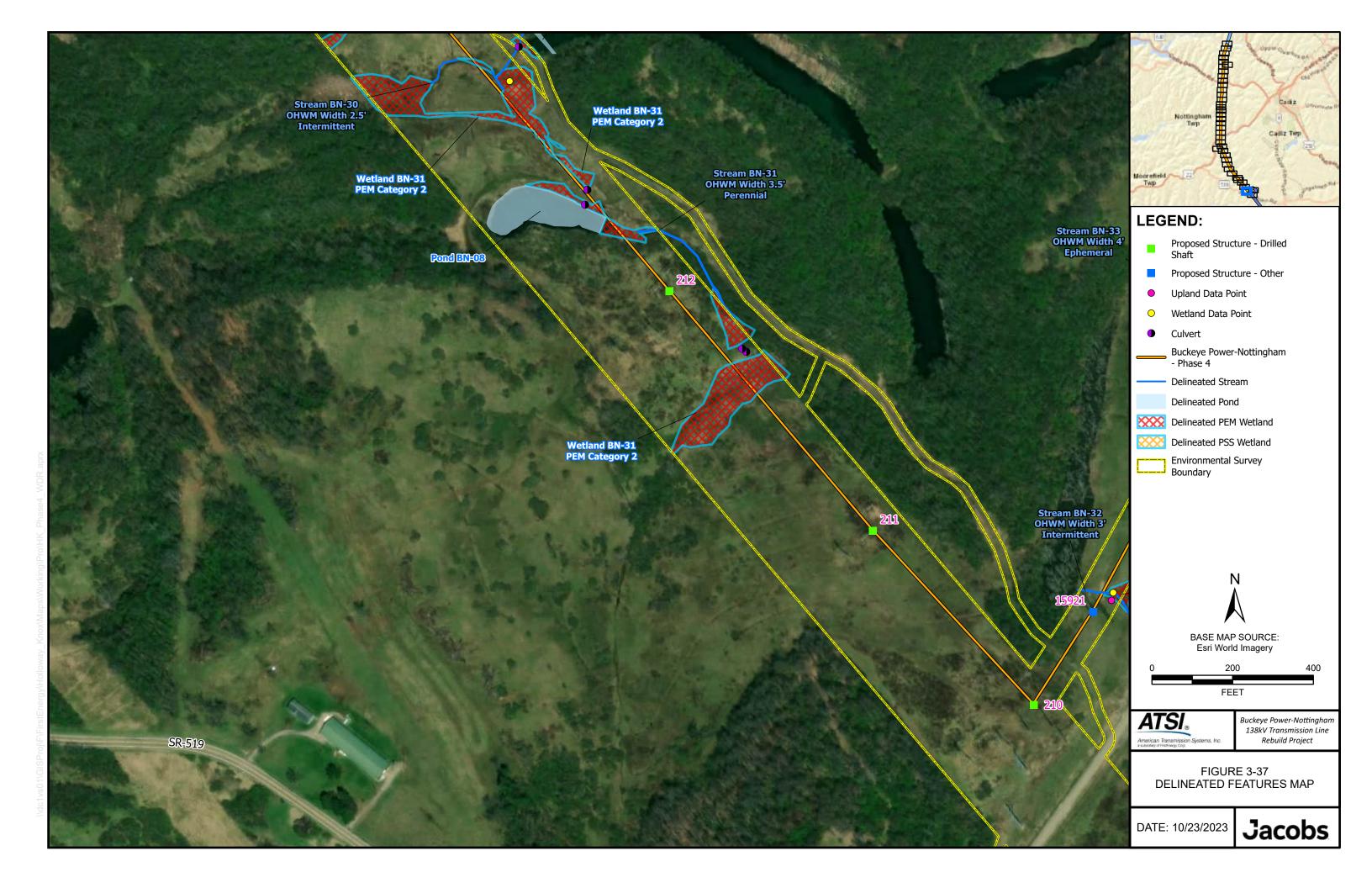
















Project/Site: Buckeye Power-I	Nottingham	Citv/C	county: Harrison County		Sampling Date: 10/02/2023
Applicant/Owner: FirstEnergy				State. OH	Sampling Point: Wetland BN-01
Investigator(s): JFW		Section	on Townshin Range S2		camping rount
Landform (hillslope, terrace, et		Local reli	ief (concave_convex_nor	ne). Concave	Slone (%): 2
Subragion (LDD or MLDA). LF	RR N. MLRA 220	40.327982	-81.0 -81.0	061945	Glope (70)
Subregion (LRR or MLRA): LF Soil Map Unit Name: Or: Orrvi	ille silt loam 0 to 3 i	_ Lat: percent slopes_occasionall	v flooded		None
Are climatic / hydrologic condit					
Are Vegetation, Soil	, or Hydrology	/ significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No
Are Vegetation, Soil	, or Hydrology	/ naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)
SUMMARY OF FINDIN	GS – Attach si	ite map showing sam	pling point location	ons, transects	, important features, etc.
Hudranh, tie Veretetien Dree		X No			
Hydrophytic Vegetation Present?	ent? Yes	X No	Is the Sampled Area	Y	
Wetland Hydrology Present?		V	within a Wetland?	Yes X	No
Remarks:	100_				
Palustrine emergent wetland	in maintained powe	erline easement.			
- arasımıs sinorgoni ironana	aaoa pono	51o			
HYDROLOGY					
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum		check all that apply)		Surface Soil	
Surface Water (A1)	or one is required,	True Aquatic Plants (R14)		getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Pa	
Saturation (A3)		X Oxidized Rhizosphere	,	Moss Trim Li	
Water Marks (B1)		Presence of Reduced	• , ,		Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)				X Geomorphic	Position (D2)
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (E	39)				aphic Relief (D4)
Aquatic Fauna (B13)				X FAC-Neutral	Test (D5)
Field Observations:		V			
Surface Water Present?		X Depth (inches):			
Water Table Present?		X Depth (inches):			~
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	Hydrology Preser	nt? Yes X No
Describe Recorded Data (str	eam gauge, monito	oring well, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30)		Species?		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				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species x 1 = 10.0
50% of total cover:	20% of	total cover:		FACW species 55 x 2 = 110.0
Sapling/Shrub Stratum (Plot size: 15				FAC species
1				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				
4				Column Totals:115 (A)270.0 (B)
5				Prevalence Index = B/A = 2.3
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5	50		EA (C) A (No Problematic Hydrophytic Vegetation (Explain)
1. Phalaris arundinacea	50	Yes	FACW	
2. Echinochloa crus-galli	50	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must
3. Cyperus flavescens		No	OBL	be present, unless disturbed or problematic.
4. Persicaria pensylvanica	5	No	FACW	Definitions of Four Vegetation Strata:
5				Tree Meady plants avaluding vines 2 in (7.6 cm) or
6				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				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>57.5</u>	20% of	total cover:	23.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3				
4				Hydranbytia
5				Hydrophytic 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 s	heet.)			
	,			

	ription: (Describe t	to the dept	h needed to docun			r confirm	the absence	of indicat	tors.)	
Depth	Matrix	0/		K Feature:	S1	Loc²	T		Damada	_
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹		<u>Texture</u>		Remarks	3
0 - 18	10YR 4/1	80	5YR 4/6		Concen	PL,M	Silty clay			
-										
-										·
										
-										
										-
										-
-										
1							2			
		etion, RM=	Reduced Matrix, MS	S=Masked	l Sand Gra	ins.			ning, M=Matri	
Hydric Soil I										Hydric Soils ³ :
Histosol			Dark Surface	. ,	(0=) (5=)				(A10) (MLRA	
	ipedon (A2)		Polyvalue Be				148) C		e Redox (A16	5)
Black His			Thin Dark Su			47, 148)	_	(MLRA 1		(540)
	n Sulfide (A4)		Loamy Gleye	,	F2)		P		loodplain Soil	IS (F19)
	Layers (A5) ck (A10) (LRR N)		X Depleted Mat		-6)			(MLRA 1		oo (TE12)
	Below Dark Surface	Δ (Δ11)	Depleted Dar	,	,				w Dark Surfa ain in Remarl	
	rk Surface (A12)	<i>(</i> // 1)	Redox Depre					illei (Lxpi	alli ili Nelliali	(3)
	ucky Mineral (S1) (L	RR N	Iron-Mangane			RR N.				
	. 147, 148)	,	MLRA 130		00 (i iz) (=	,				
	leyed Matrix (S4)		Umbric Surfa	-	MLRA 136	5. 122)	³ Ind	icators of I	hvdrophytic v	egetation and
	edox (S5)		Piedmont Flo						ology must be	-
	Matrix (S6)		Red Parent M						bed or proble	
	ayer (if observed):				, ,		ĺ		•	
Type:	,									
	hes):						Hydric Soil	Present?	Yes X	No
	1103).						Tiyane con	i resent:	103	
Remarks:										











Soil

Project/Site: Buckeye Power-Nottingham	City/County: Harrison County	Sampling Date: 10/02/2023		
Applicant/Owner: FirstEnergy		State: OH Sampling Point: Upland BN-01		
Investigator(s): JFW	Section Township Range Si			
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convey, no	ne). Concave Slone (%). 2		
LRR N. MIRA 220	40.327985 -81	.062048		
Subregion (LRR or MLRA): LRR N, MLRA 220 Soil Map Unit Name: Or: Orrville silt loam, 0 to 3 p	Lat: Long: Long:	Datum: None		
Are climatic / hydrologic conditions on the site typic				
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norma	ıl Circumstances" present? Yes X No		
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed,	explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site	e map showing sampling point location	ons, transects, important features, etc.		
Hudronhutia Vanatatian Brasanta	No. X			
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	X No No No Within a Wetland?	Y		
Wetland Hydrology Present? Yes	X No within a Wetland?	Yes NoX		
Remarks:				
Upland data point in maintained powerline easem	ent.			
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; c	heck 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)	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 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)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present? Yes No	X Depth (inches):			
	X Depth (inches):			
Saturation Present? Yes No	X Depth (inches): Wetland	Hydrology Present? Yes X No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitori	na well coriel photos province increations) if over	ailahla.		
Describe Recorded Data (stream gauge, monitori	ng well, aerial priotos, previous inspections), il ava	allable.		
Remarks:				

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata: 4 (B)
4				
5				Percent of Dominant Species That Are OBL FACW or FAC: 0.25
				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
E00/ of total cover:		= Total Cov		OBL species 0 x 1 = 0.0
50% of total cover:	20% 01	total cover.		FACW species 5 x 2 = 10.0
Sapling/Shrub Stratum (Plot size: 15 1 Rosa multiflora	20	V	FACU	FAC species 0 x 3 = 0.0
		Yes		1
2. Hypericum prolificum	30	Yes	FACU	1 AOO 3pecies X + =
3				01 L species
4				Column Totals:115 (A)450.0 (B)
5				Prevalence Index = B/A = 3.9
6				
7				Hydrophytic Vegetation Indicators:
8				No 1 - Rapid Test for Hydrophytic Vegetation
				No 2 - Dominance Test is >50%
9		Tatal Cau		No 3 - Prevalence Index is ≤3.01
50% of total cover: 25.0		= Total Cov total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
	20% 01	total cover:	25.0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 1 Solidago canadensis	E 0	Vaa	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
"	50	Yes		
2. Symphyotrichum novae-angliae	15	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
3. Phalaris arundinacea	20	Yes	FACW	be present, unless disturbed or problematic.
4. Pycnanthemum tenuifolium	5	No	FACW	Definitions of Four Vegetation Strata:
5. Apocynum cannabinum	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 height.
8				
9				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				
11	100			Herb – All herbaceous (non-woody) plants, regardless
500/ (1.1.) 50.0		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50.0	20% of	total cover:	20.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1				
2				
3				
4				Underskrife
5				Hydrophytic Vegetation
		= Total Cov	er	Present? Yes No _X
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s				
Tromano: (morado prioto fidinisoro fiore di erra doparate d				
				I

Depth	Matrix		h needed to docum	x Features	S1	. 2			5 .	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>		Remarks	
0 - 18	10YR 4/2	80	5YR 4/6	20	Concen	PL_	Silty clay	<u>′ </u>		
-								_		
-										
							-	-		
								_		
-										
-								_		
-										
								-		
								_		
								_		
-										
vpe: C=Co	ncentration. D=Dep	etion. RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location:	PL=Pore Lin	ing, M=Matrix.	
ydric Soil II			,						roblematic Hy	
_ Histosol ((A1)		Dark Surface	(S7)					A10) (MLRA 1	
	pedon (A2)		Polyvalue Be		ce (S8) (M I	LRA 147,			e Redox (A16)	
Black His			Thin Dark Su				, _	(MLRA 14		
	Sulfide (A4)		Loamy Gleye					•	oodplain Soils	(F19)
	Layers (A5)		X Depleted Ma	trix (F3)				(MLRA 13		
2 cm Mud	ck (A10) (LRR N)		Redox Dark	Surface (F	6)			Very Shallov	v Dark Surface	(TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		_	Other (Expla	in in Remarks))
_ Thick Da	rk Surface (A12)		Redox Depre	ssions (F	3)					
	ucky Mineral (S1) (L	.RR N,	Iron-Mangan		es (F12) (L	RR N,				
	147, 148)		MLRA 13	•						
	eyed Matrix (S4)		Umbric Surfa						ydrophytic veg	
Sandy Re			Piedmont Flo						ology must be p	
	Matrix (S6)		Red Parent N	/laterial (F	21) (MLR<i>A</i>	127, 147	') U	ınless disturb	ed or problem	atic.
estrictive L	ayer (if observed):									
Туре:										
	hes):						Hydric So	il Present?	Yes X	No
Depth (inc							1			
Depth (inc										





Project/Site: Buckeye Power-N	lottingham	Citv/C	county: Harrison County		Sampling Date: 10/02/2023		
Applicant/Owner: FirstEnergy			State: OH	Sampling Point: Wetland BN-02			
Investigator(s): JFW		Section	on Townshin Range S2		Camping Form.		
Landform (hillslope, terrace, etc					Slone (%). 2		
Subregion (LRR or MLRA): LR	R N. MLRA 220	40.321401	-81.	064483	Slope (70)		
Soil Map Unit Name: CnD: Cos	shocton silt loam 1	Lat:	Long: · ·		Datum:		
Are climatic / hydrologic conditi							
Are Vegetation, Soil	, or Hydrology	/ significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	/ naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDING	3S – Attach sif	te map showing sam	npling point location	ons, transects	, important features, etc.		
Hudraphytia Vagatatian Broos	ont? Voc	X No					
Hydrophytic Vegetation Prese Hydric Soil Present?	THE TES	X No	Is the Sampled Area	Y			
Wetland Hydrology Present?		V	within a Wetland?	Yes X	No		
Remarks:							
Palustrine emergent wetland a	idjacent to pond in	n maintained powerline ease	ement.				
HYDROLOGY							
Wetland Hydrology Indicato	rs:			Secondary Indica	tors (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 Ve	arsely Vegetated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od	,	Drainage Pa	tterns (B10)		
Saturation (A3)		X Oxidized Rhizosphere	es on Living Roots (C3)	Moss Trim L	ines (B16)		
Water Marks (B1)		Presence of Reduced	d Iron (C4)	Dry-Season	Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur			
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)		tressed Plants (D1)		
Iron Deposits (B5)	:-! ! (D7)			X Geomorphic	` '		
Inundation Visible on Aer				Shallow Aqu	aphic Relief (D4)		
Water-Stained Leaves (B Aquatic Fauna (B13)	9)			X FAC-Neutral			
Field Observations:			<u> </u>	17.0 110414	1001 (20)		
Surface Water Present?	Yes No	X Depth (inches):					
Water Table Present?		X Depth (inches):					
Saturation Present?		X Depth (inches):		lydrology Preser	nt? Yes X No		
(includes capillary fringe)		,			100 110		
Describe Recorded Data (stre	am gauge, monitor	oring well, aerial photos, pre	vious inspections), if ava	iilable:			
Remarks:							

Sampling Point: Wetland BN-02

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species
50% of total cover:	20% of	total cover:		FACW species 20 x 2 = 40.0
Sapling/Shrub Stratum (Plot size: 15				FAC species 5 x 3 = 15.0
1				1 AO species
2				1 AOO SPECIES X +
3				405
4				Column Totals:(A)(B)
5				Prevalence Index = B/A = 1.4
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cov	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Typha angustifolia	70	Yes	OBL	Froblematic Hydrophytic vegetation (Explain)
2. Impatiens capensis	15	No	FACW	1 Indicators of hydric soil and watland hydrology must
3. Amphicarpaea bracteata	5	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Eupatorium perfoliatum	5	No	FACW	Definitions of Four Vegetation Strata:
5. Galium aparine	5	No	FACU	
6. Carex lurida	5	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				Continue (Charaka Manada ata arabadian ariana lara
9				Sapling/Shrub – Woody plants, excluding vines, less 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
	105	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>52.5</u>		total cover:		W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3				
4				
5				Hydrophytic Vegetation
		= Total Cov	er	Present? Yes X No
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s		•	-	
(,			

Profile Desc	ription: (Describe t	o the depth r	needed to docum	ent the i	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix			Features		. ?	_	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0 - 18	2.5Y 4/1	70	7.5YR 4/6	30	Concen	M,PL	Silty clay	
-								
								
-								
-								
							2	
	ncentration, D=Depl	etion, RM=Re	duced Matrix, MS	=Masked	Sand Gra	ins.		L=Pore Lining, M=Matrix.
Hydric Soil I				:				ators for Problematic Hydric Soils ³ :
Histosol		-	Dark Surface		(O-) (C-			cm Muck (A10) (MLRA 147)
	ipedon (A2)	-	Polyvalue Bel				148) C	Coast Prairie Redox (A16)
Black His		-	Thin Dark Sur	, ,	•	47, 148)	5	(MLRA 147, 148)
	n Sulfide (A4)	-	Loamy Gleye	,	F2)		P	Piedmont Floodplain Soils (F19)
	Layers (A5)	-	X Depleted Mat		·C)			(MLRA 136, 147)
	ck (A10) (LRR N) Below Dark Surface	- (Δ11)	Redox Dark S Depleted Darl					ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	rk Surface (A12)	· (A11)	Redox Depres					oner (Explain in Nemarks)
	ucky Mineral (S1) (L	RR N.	Iron-Mangane			RR N.		
	. 147, 148)		MLRA 136		30 (i i.e.) (e			
	leyed Matrix (S4)		Umbric Surfac		MLRA 136	6. 122)	³ Ind	licators of hydrophytic vegetation and
	edox (S5)	-	Piedmont Flo					etland hydrology must be present,
	Matrix (S6)	-	Red Parent M					less disturbed or problematic.
	ayer (if observed):			•				·
Type:								
	hes):		_ '				Hydric Soil	Present? Yes X No No
Remarks:			-				,	
rtomanto.								











Soil

Project/Site: Buckeye Power-Nottingham	City/County: Harrison County	Sampling Date: 10/02/2023
Applicant/Owner: FirstEnergy		State: OH Sampling Point: Upland BN-02
Investigator(s): JFW	Section Township Range, S2	
Landform (hillslope, terrace, etc.): Flat		
Subregion (LRR or MLRA): LRR N, MLRA 220	40.322011 -81.	064226 NAD 83
Soil Map Unit Name: Me: Melvin silt loam, frequent	Lat: Long: Long:	None Name
Are climatic / hydrologic conditions on the site typic		
Are Vegetation X, Soil, or Hydrology _	significantly disturbed? Are "Norma	l Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site	e map showing sampling point location	ons, transects, important features, etc.
Lludrophytic Vegetation Present?	No. X	
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No X Is the Sampled Area within a Wetland?	Y
Wetland Hydrology Present? Yes	No X within a Wetland?	Yes NoX
Remarks:		
Upland data point in maintained powerline easeme	ent.	
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; cl		Surface Soil Cracks (B6)
	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
	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)	1	FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No	X Depth (inches):	
	X Depth (inches):	
		Hydrology Present? Yes NoX
(includes capillary fringe)	Deptir (inches) wetiand r	nydrology Fresent: Tes No
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspections), if ava	ailable:
Remarks:		

Sampling Point: Upland BN-02

20	Absolute	Dominant		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 Number of Dominant
3				Species Across All Strata: 1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.0 (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
Sapling/Shrub Stratum (Plot size: 15				FACW species0 x 2 =0.0
1				FAC species0 x 3 =0.0
2				FACU species110 x 4 =440.0
3				UPL species0 x 5 =0.0
4				Column Totals:110 (A)440.0 (B)
5				Prevalence Index = B/A = 4.0
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.01
500/ /		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)	90	V	EACH	No Problematic Hydrophytic Vegetation (Explain)
1. Poa annua	80	Yes	FACU	
2. Trifolium repens		<u>No</u>	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Taraxacum officinale	5	<u>No</u>	FACU	be present, unless disturbed or problematic.
4. Glechoma hederacea	5	No	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				height.
8				Cardia of Chards - West designed as a second of the control of the
9				Sapling/Shrub – Woody plants, excluding vines, less 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	<u></u>	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 55.0		total cover:		
Woody Vine Stratum (Plot size: 30)		-		Woody vine – All woody vines greater than 3.28 ft in height.
1				neight.
2				
3				
4				
				Hydrophytic
5				Vegetation Present? Yes No X
50% of total cover:		= Total Cove		
		total cover.		
Remarks: (Include photo numbers here or on a separate s	neet.)			

Depth _	Matrix	<u></u> %	Redox Features Color (moist) % Type ¹ Loc	Textu	***	Domorko	
<u>nches) </u>	Color (moist) 10YR 4/2	100	Color (moist) % Type ¹ Loc	Silty c		Remarks	
	1011(4/2				<u> </u>		
-							
_							
-							
-							
pe: C=Con	centration, D=Deple	etion, RM=Re	educed Matrix, MS=Masked Sand Grains.	² Locatio	n: PL=Pore Lin	ing, M=Matrix.	
dric Soil Inc	dicators:			I	ndicators for P	roblematic Hy	ydric Soils³:
Histosol (A	\1)		Dark Surface (S7)	_	2 cm Muck ((A10) (MLRA 1	47)
Histic Epip	edon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairi	e Redox (A16)	
Black Histi	c (A3)		Thin Dark Surface (S9) (MLRA 147, 14	l8)	(MLRA 14	47, 148)	
Hydrogen	Sulfide (A4)		Loamy Gleyed Matrix (F2)	_	Piedmont FI	oodplain Soils	(F19)
Stratified L	ayers (A5)		Depleted Matrix (F3)		(MLRA 1	36, 147)	
2 cm Muck	(A10) (LRR N)		Redox Dark Surface (F6)	=		w Dark Surface	
	Below Dark Surface	(A11)	Depleted Dark Surface (F7)	=	Other (Expla	ain in Remarks)
	Surface (A12)		Redox Depressions (F8)				
	cky Mineral (S1) (L	RR N,	Iron-Manganese Masses (F12) (LRR N	l,			
	47, 148)		MLRA 136)		2		
	yed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122		³ Indicators of h		
_ Sandy Red			Piedmont Floodplain Soils (F19) (MLR			ology must be	
_ Stripped M			Red Parent Material (F21) (MLRA 127)	, 147)	unless disturb	ed or problem	atic.
	yer (if observed):						
Type: Rock			<u> </u>				
Depth (inch	es): 4.0		_	Hydric	Soil Present?	Yes	No X
emarks:							





U-JFW-100223-03

Project/Site: Buckeye Power-Nottingham	City/County: Ha	rison County	Sampling Date: 10/02/2023			
Applicant/Owner: FirstEnergy	• • • • • • • • • • • • • • • • • • • •					
Investigator(s): JFW	Section Townsh		Sampling Point: Wetland BN-03			
Landform (hillslope, terrace, etc.): Footslope	Local relief (concav	convex none). Concave	Slone (%): 5			
Subregion (LRR or MLRA): LRR N, MLRA 220 L	20.31849	-81.065706	Data NAD 83			
Subregion (LRR or MLRA): L WnF: Westmoreland-Dekalb o	complex 40 to 70 percent slopes	_ Long:	Datum: 11 12 00			
Soil Map Unit Name: WnF: Westmoreland-Dekalb o						
Are climatic / hydrologic conditions on the site typical						
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 answ	ers in Remarks.)			
SUMMARY OF FINDINGS – Attach site	map showing sampling po	oint locations, transect	s, important features, etc.			
Hudrock die Verenteier Breeset?	ζ Na					
Hydrophytic Vegetation Present? Yes	K No I	mpled Area				
Wetland Hydrology Present?	No within a \	Wetland? Yes X	No			
Remarks:						
Palustrine emergent wetland along a stream in mai	intained powerline easement.					
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)			
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soi				
	True Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)			
	Hydrogen Sulfide Odor (C1)	_	atterns (B10)			
X Saturation (A3)	Oxidized Rhizospheres on Living					
	Presence of Reduced Iron (C4)		Water Table (C2)			
	Recent Iron Reduction in Tilled S					
Drift Deposits (B3)	Thin Muck Surface (C7)		/isible on Aerial Imagery (C9)			
	Other (Explain in Remarks)		Stressed Plants (D1)			
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		X Geomorphic				
Water-Stained Leaves (B9)			Shallow Aquitard (D3) Microtopographic Relief (D4)			
Aquatic Fauna (B13)			X FAC-Neutral Test (D5)			
Field Observations:						
	Depth (inches):					
	Depth (inches):					
	Depth (inches): 0	Wetland Hydrology Prese	ent? Yes X No			
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previous inspe	ctions), if available:				
Remarks:						

Sampling Point: Wetland BN-03

20	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				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 1.0 (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 x 1 = 10.0
Sapling/Shrub Stratum (Plot size: 15				FACW species115
1				FAC species 0 x 3 = 0.0
2				FACU species
3				UPL species 0 x 5 = 0.0
4				Column Totals:125 (A)240.0 (B)
5				Brook and Indoor B/A 19
6				Prevalence Index = B/A = 1.9
7				Hydrophytic Vegetation Indicators:
8				Yes 1 - Rapid Test for Hydrophytic Vegetation
9				Yes 2 - Dominance Test is >50%
<u> </u>		= Total Cov		Yes 3 - Prevalence Index is ≤3.01
50% of total cover:				No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1. Agrimonia parviflora	60	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago gigantea	20	Yes	FACW	
3. Onoclea sensibilis	20	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
4 Juncus effusus	15	No	FACW	be present, unless disturbed or problematic.
5. Persicaria sagittata	10	No	OBL	Definitions of Four Vegetation Strata:
6		-		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of height.
7				neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
5		-		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				, '
11	125			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 62.5		= Total Cover:		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)	20 /6 01	total cover.		Woody vine - All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
		= Total Cov		Present? Yes No
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			
				·

epth	Matrix			x Features		Loc ²	T (Demonstra	
nches) 0 - 6	Color (moist) 10YR 3/1	<u>%</u> 100	Color (moist)	<u>%</u>	Type ¹	LOC	Texture Silty clay loa		Remarks	
			40\/D 4/0		Desile (in					
6 - 10	Gley 1 4/10Y	95	10YR 4/6	5	Depletic	M	Silty cla	<u> </u>		
-										
-										
_		· ·								
-										
-										
_		·								
							-	-		
		· ·								
	ncentration, D=Dep	letion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location:	PL=Pore Lin	ing, M=Matrix.	3
	ndicators:						Inc		roblematic Hy	
Histosol (Dark Surface		(00) (88)	D 4 4 4 =			A10) (MLRA 14	47)
	ipedon (A2)		Polyvalue Be				148)		e Redox (A16)	
Black His	n Sulfide (A4)		Thin Dark Su Loamy Gleye			17, 148)		(MLRA 14	•7, 148) oodplain Soils (E10)
	Layers (A5)		Loanly Gleye	,	-2)		_	_ Pledition(Pi		r 19)
_	ck (A10) (LRR N)		Redox Dark S	. ,	6)				v Dark Surface	(TF12)
='	Below Dark Surface	e (A11)	Depleted Dar		,				in in Remarks)	
	rk Surface (A12)	,	Redox Depre		. ,			- ` '	,	
Sandy M	ucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Masse	es (F12) (L	RR N,				
	147, 148)		MLRA 13	-						
	eyed Matrix (S4)		Umbric Surfa						ydrophytic veg	
	edox (S5)		Piedmont Flo						ology must be p	
	Matrix (S6)		Red Parent N	faterial (F2	21) (MLRA	127, 147	<u>')</u>	unless disturb	ed or problema	atic.
strictive L	ayer (if observed):									
									~	
Type: Roo	k						I I be a desire C	Soil Present?	Yes X	No
Type: Roo			<u> </u>				Hydric S	our resent:		
Type: Roc Depth (inc	k						Hydric S	on r resent:		
Type: Roc Depth (inc	k						Hydric S	on resent:		
Type: Roc Depth (inc	k		<u> </u>				Hydric S	on resent:		
Type: Roc Depth (inc	k		_				Hydric S	on resent:		
Type: Roc Depth (inc	k		_				Hydric S	on resent:		
Type: Roc Depth (inc	k		_				Hydric S	onriesent		
Type: Roc Depth (inc	k						Hydric S	onrresent		
Type: Roc Depth (inc	k						Hydric S	onrresent		
Type: Roo Depth (inc	k						Hydric S	onresent		
Type: Roc Depth (inc	k						Hydric S	onresent		
Type: Roc Depth (inc	k						Hydric S	onresent		
Type: Roo Depth (inc	k						Hydric S	onresent		
Type: Roo Depth (inc	k						Hydric S	onresent		
Type: Roo Depth (inc	k						Hydric S	onresent		
Type: Roo Depth (inc	k						Hydric S	onresent		
Type: Roc Depth (inc	k						Hydric S	onresent		
Type: Roc Depth (inc	k						Hydric S	on reseme		
Type: Roc Depth (inc	k						Hydric S	on resem:		
Type: Roo	k						Hydric S	on resem:		
Type: Roc Depth (inc	k						Hydric S	on resem:		
Type: Roc Depth (inc	k						Hydric S	on resem:		
Type: Roc Depth (inc	k						Hydric S	on resem:		
Type: Roo Depth (inc	k						Hydric S	on resem:		







South



West



Soil Soil

Project/Site: Buckeye Power-Nottin	gham	Citv/C	county: Harrison County		Sampling Date: 10/02/2023			
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-03			
Investigator(s): JFW		Section	on Township Range. S2		Gampling Fount.			
Landform (hillslope, terrace, etc.): _					Slone (%): 6			
Subregion (LRR or MLRA): LRR N,	MLRA 220	40.318471	-81.0	065684	Siope (70)			
Subregion (LRR or MLRA):	Lat	mpley 40 to 70 percent	t slopes		Datum: The Do			
Soil Map Unit Name: WnF: Westmo								
Are climatic / hydrologic conditions of								
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	present? Yes X No			
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)			
SUMMARY OF FINDINGS	- Attach site n	nap showing sam	npling point location	ons, transects	s, important features, etc.			
Lhydrophytic Vacatation Dragont?	Vac	No. X						
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes	NoX	Is the Sampled Area		Y			
Wetland Hydrology Present?	Yes	X	within a Wetland?	Yes	NoX			
Remarks:	100							
Upland data point in maintained po	wernine casement.	•						
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of on	e is required; chec	ck all that apply)		Surface Soil Cracks (B6)				
Surface Water (A1)	_	True Aquatic Plants (B14)	Sparsely Ve	getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Ode	or (C1)	Drainage Patterns (B10)				
Saturation (A3)			es on Living Roots (C3)	Moss Trim L				
Water Marks (B1)		Presence of Reduced			Water Table (C2)			
Sediment Deposits (B2)	_	Recent Iron Reductio		Crayfish Bur				
Drift Deposits (B3)	_	Thin Muck Surface (C			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	_	Other (Explain in Ren	narks)		Stressed Plants (D1)			
Iron Deposits (B5)	(DZ)				Position (D2)			
Inundation Visible on Aerial In	nagery (B7)			Shallow Aqu				
Water-Stained Leaves (B9) Aquatic Fauna (B13)				FAC-Neutra	aphic Relief (D4)			
Field Observations:				1710 1100110	1 1 1 2 3 1 2 3 1 3 1 3 1 3 1 3 1 3 1 3			
	s No X	_ Depth (inches):						
		_ Depth (inches):						
		_ Depth (inches):		lydrology Prese	nt? Yes NoX			
(includes capillary fringe)					165 <u> </u>			
Describe Recorded Data (stream of	gauge, monitoring	well, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								
Nomano.								

Sampling Point: Upland BN-03

20	Absolute	Dominant		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 Number of Dominant
3				Species Across All Strata: 2 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC:
6				(VB)
7				Prevalence Index worksheet:
		= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15				FACW species 0 x 2 = 0.0
1 Rosa multiflora	20	Yes	FACU	FAC species 20 x 3 = 60.0
· !-	-			FACU species 110 x 4 = 440.0
2				UPL species0 x 5 =0.0
3				Column Totals: 130 (A) 500.0 (B)
4				Column Totals (A) (B)
5	-			Prevalence Index = B/A = 3.8
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
	20	= Total Cov	er	
50% of total cover: <u>10.0</u>	20% of	total cover:	10.0	No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1 Dichanthelium oligosanthes	80	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Verbesina alternifolia	20	No	FAC	
3. Rosa multiflora	10	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
· · ·				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	110	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55.0</u>		total cover:		
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				neight.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No X
		= Total Cov		Present? Yes No _^
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the depth	needed to docun	ent the in	ndicator	or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redox	c Features	3						
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remark	KS	
0 - 3	10YR 4/2	100					Silty clay				
-								·			<u> </u>
-											
¹ Type: C=Co	ncentration, D=Depl	etion, RM=R	educed Matrix, MS	=Masked	Sand Gra	ains.	² Location: P	L=Pore Lin	ning, M=Mat	rix.	
Hydric Soil I	ndicators:						Indic	ators for P	roblematic	Hydric So	ils³:
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck	(A10) (MLR	A 147)	
	ipedon (A2)		Polyvalue Be		ce (S8) (N	LRA 147,			e Redox (A1		
Black His			Thin Dark Su		. , .		, <u> </u>	(MLRA 1	•	,	
	n Sulfide (A4)		Loamy Gleye	. ,	•	, ,	F		loodplain Sc	ils (F19)	
	Layers (A5)		Depleted Mat		,		_	(MLRA 1		- (- /	
	ck (A10) (LRR N)		Redox Dark S		6)		\		w Dark Surfa	ace (TF12)	
	Below Dark Surface	(A11)	Depleted Dar						ain in Rema		
	rk Surface (A12)	(* * * * *)	Redox Depre					(,	
	ucky Mineral (S1) (L	RR N.	Iron-Mangane			RR N.					
	147, 148)	,	MLRA 130		, / (.						
	leyed Matrix (S4)		Umbric Surfa	•	MIRA 13	6 122)	³ Inc	licators of h	nydrophytic	vegetation :	and
	edox (S5)		Piedmont Flo						ology must b	-	and
	Matrix (S6)		Red Parent M						bed or probl		
	ayer (if observed):		Red r arent iv	iateriai (i z	21) (IVILIX	A 121, 141	T un	iless distuit	bed of proble	ematic.	
Type: Ro											
			<u> </u>						.,		Χ
Depth (inc	nes): <u>3.0</u>		_				Hydric Soil	Present?	Yes	No _	
Remarks:											





Project/Site: Buckeye Power-Nottingham	City/Co	ounty: Harrison County	Sampling Date: 10/03/2023				
Applicant/Owner: FirstEnergy		Sampling Point: Wetland BN-04E					
Investigator(s): JFW Section, Township, Range: S19 T11N R5W							
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (Subregion (LRR or MLRA): LRR N, MLRA 220 Lat: 40.306533 Long: -81.064548 Datum: No.							
Subragion (LDB or MLDA), LRR N, MLRA 220	40.306533		Datum, NAD 83				
Soil Map Unit Name: Mwc3D: Morristown silty clay	Lat / loam 8 to 25 percent slop	es reclaimed	Datum				
Are climatic / hydrologic conditions on the site typic							
Are Vegetation, Soil, or Hydrology	significantly disturb	ped? Are "Normal Circumstances	s" present? Yes X No				
Are Vegetation, Soil, or Hydrology	naturally problema	tic? (If needed, explain any ans	wers in Remarks.)				
SUMMARY OF FINDINGS – Attach site	e map showing sam	pling point locations, transec	ets, important features, etc.				
Hydrophytic Vegetation Present? Yes	X No						
Hydric Soil Present? Yes	X No	Is the Sampled Area	XNo				
Wetland Hydrology Present? Yes	X No	within a Wetland? Yes	NO				
Remarks:							
Palustrine emergent portion of a PEM/PSS wetlar	nd complex on either side o	f a farm path.					
HYDROLOGY							
Wetland Hydrology Indicators:		· · · · · · · · · · · · · · · · · · ·	licators (minimum of two required)				
Primary Indicators (minimum of one is required; of			oil Cracks (B6)				
	True Aquatic Plants (E		Vegetated Concave Surface (B8)				
X High Water Table (A2)	Hydrogen Sulfide Odo		Patterns (B10)				
X Saturation (A3)	X Oxidized Rhizosphere						
Water Marks (B1)	Presence of Reduced		on Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction		Burrows (C8)				
Drift Deposits (B3)	Thin Muck Surface (C		Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Rem		r Stressed Plants (D1)				
Iron Deposits (B5)		 -	nic Position (D2)				
Inundation Visible on Aerial Imagery (B7)			quitard (D3)				
Water-Stained Leaves (B9)			Microtopographic Relief (D4)X FAC-Neutral Test (D5)				
Aquatic Fauna (B13)		FAC-Neut	ral Test (D5)				
Field Observations: Surface Water Present? Yes No	X Depth (inches):						
		6					
) Wetland Hydrology Pres	sent? Yes X No				
(includes capillary fringe)			sent? resNo				
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, prev	vious inspections), if available:					
Remarks:							

Sampling Point: Wetland BN-04E
st worksheet:
ininant Species

<u>Tree Stratum</u> (Plot size: <u>30</u>	% Cover	Species?		Dominance rest worksneet.
Tree Stratum (Plot size: 30) 1.		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total New Long (Device of
3				Total Number of Dominant Species Across All Strata:1 (B)
4				
5				Percent of Dominant Species That Are OBL_FACW_or FAC: 1.0 (A/B)
6				That Are OBL, FACW, or FAC:(A/B)
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
50% of total cover:		= Total Cov		OBL species 90 x 1 = 90.0
	20% 01	iolai covei.		FACW species 10 x 2 = 20.0
Sapling/Shrub Stratum (Plot size: 15				FAC species 0 x 3 = 0.0
1,				FACU species 0 x 4 = 0.0
2				UPL species $0 \times 5 = 0.0$
3		-		400 4400
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 1.1
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Typha angustifolia	90	Yes	OBL	Problematic Hydrophytic vegetation (Explain)
2. Scirpus cyperinus	10	No	FACW	The Person of header and an allow the developments
3. Juncus effusus	5	No	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Eupatorium perfoliatum	5	No	FACW	Definitions of Four Vegetation Strata:
5. Agrimonia parviflora	10	No	FACW	Definitions of Four Vegetation offata.
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				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11	120	T-1-1-0		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60.0	20% of	= Total Cov	er 24.0	of size, and woody plants less than 3.26 it tall.
Woody Vine Stratum (Plot size: 30)	20 /6 01	iolai covei.		Woody vine – All woody vines greater than 3.28 ft in
				height.
1,				
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
		= Total Cov		Present? Yes A No No No
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate si	heet.)			

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix		Redox	Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 6	10YR 3/1	95	10YR 5/6	5	Concen	PL	Silt	
6 - 18	Gley 1 5/10Y	100					Clay	
-								
-								
								
	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Grai	ns.		L=Pore Lining, M=Matrix.
Hydric Soil I								ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Bel		. , .		148) C	Coast Prairie Redox (A16)
Black His			Thin Dark Sur	, ,	•	17, 148)	_	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		F2)		P	riedmont Floodplain Soils (F19)
	Layers (A5) ck (A10) (LRR N)		Depleted Mat X Redox Dark S		.c)			(MLRA 136, 147) Yery Shallow Dark Surface (TF12)
	l Below Dark Surface	(Δ11)	Depleted Dark	,	,			other (Explain in Remarks)
	rk Surface (A12)	(////)	Redox Depres				_ ~	THE (Explain in Remarks)
	lucky Mineral (S1) (L	RR N.	Iron-Mangane			RR N.		
	147, 148)	,	MLRA 136			,		
	leyed Matrix (S4)		Umbric Surfac		MLRA 136	, 122)	³ Ind	icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flor					etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 147	') un	less disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes X No No
Remarks:							1 -	
								!
								!





Soil







Project/Site: Buckeye Power-Nottingham	City/County: H	arrison County	Sampling Date: 10/03/2023
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland BN-04S
Investigator(s): JFW	Section Towns		<u> </u>
Landform (hillslope terrace etc.). Toeslope	Local relief (conca	ve convex none). Concave	Slone (%). 1
Landform (hillslope, terrace, etc.): Toeslope Subregion (LRR or MLRA): LRR N, MLRA 220 Lat:	40.30654	-81.064546	Clope (76)
Soil Map Unit Name: Mwc3D: Morristown silty clay loa	m 8 to 25 percent slopes recla	Long:	None
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site m	ոap showing sampling բ	oint locations, transect	s, important features, etc.
Hudrophytic Vocatation Propert? Voc. X	No Is the S		
Hydrophytic Vegetation Present? Hydric Soil Present? YesX X	IS tile 3	ampled Area	
Wetland Hydrology Present? Yes X	No within a	Wetland? Yes X	No
Remarks:			
Palustrine scrub/shrub portion of a PEM/PSS wetland	complex on either side of a far	m path.	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; check	k all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage P	atterns (B10)
Saturation (A3) X	Oxidized Rhizospheres on Livi	ng Roots (C3) Moss Trim	Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4) Dry-Seasor	n Water Table (C2)
	Recent Iron Reduction in Tilled		
	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)
	Other (Explain in Remarks)		Stressed Plants (D1)
Iron Deposits (B5)		X Geomorphi	
Inundation Visible on Aerial Imagery (B7)		Shallow Aq	
Water-Stained Leaves (B9) Aquatic Fauna (B13)		X FAC-Neutra	raphic Relief (D4)
Field Observations:		<u></u> 1 AO-Neulla	1 (53)
	Depth (inches):		
	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	ent? Yes ^X No
(includes capillary fringe)			iii: res No
Describe Recorded Data (stream gauge, monitoring v	vell, aerial photos, previous ins	pections), if available:	
Remarks:			

Sampling Point: Wetland BN-04S

	Absolute		Indicator	Dominance Test worksheet:
	% 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				
				Percent of Dominant Species That Are OBL FACW or FAC: 1.0 (A/B)
5				That Are OBL, FACW, or FAC: 1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species 0 x 1 = 0.0
50% of total cover:	20% of	total cover:		ODE species x 1 =
Sapling/Shrub Stratum (Plot size: 15				1 AOW Species
1. Salix interior	70	Yes	FACW	FAC species0 x 3 =0.0
2				FACU species 0 x 4 = 0.0
3.				UPL species0 x 5 =0.0
				Column Totals:110 (A)220.0 (B)
4				(2)
5				Prevalence Index = B/A = 2.0
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				
9				Yes 2 - Dominance Test is >50%
<u> </u>		= Total Cov		Yes 3 - Prevalence Index is ≤3.01
50% of total cover: 35.0				No 4 - Morphological Adaptations ¹ (Provide supporting
_	20 /0 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5) 1. Symphyotrichum lanceolatum	20	V	EACW/	No Problematic Hydrophytic Vegetation (Explain)
		Yes	FACW	
2. Agrimonia parviflora	15	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
3. Juncus effusus	10	No	FACW	be present, unless disturbed or problematic.
4. Eupatorium perfoliatum	10	No	FACW	Definitions of Four Vegetation Strata:
5				Definitions of Four Vegetation Strata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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.				Harb All berbasseus (non woody) plants, regardless
	 55 .	= Total Cov		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5		total cover:		or oleo, and woody planto look than oleo than
	2070 01	total oover.		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
1 2				
2				Thursday hostic
2				Hydrophytic Vegetation
2				Vegetation
2		= Total Cov	 er	Vegetation

Sampling Point: Wetland BN-04S

inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture		Remarks	
0 - 18	10YR 3/1	85	10YR 5/8	15	Concen	PL,M	Clay loam		Remarks	
<u> </u>										
-										
<u> </u>										
-										
-	_									
							-	-		
-										
	centration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: F	L=Pore Lin	ing, M=Matrix.	3
dric Soil In									roblematic Hy	
Histosol (A			Dark Surface		(00) (00				A10) (MLRA 1	47)
	pedon (A2)		Polyvalue Be				148) (e Redox (A16)	
Black Hist	Sulfide (A4)		Thin Dark Su Loamy Gleye			47, 148)	-	(MLRA 14	oodplain Soils ((E10)
	Layers (A5)		X Depleted Ma		F2)		<u> </u>	MLRA 13)		(F19)
-	k (A10) (LRR N)		Redox Dark		6)		\		v Dark Surface	(TF12)
	Below Dark Surface	(A11)	Depleted Dai	,	,				in in Remarks)	
•	k Surface (A12)	,	Redox Depre				_	(] .	,	
	icky Mineral (S1) (LI	RR N,	Iron-Mangan			.RR N,				
MLRA '	147, 148)		MLRA 13	6)						
	eyed Matrix (S4)		Umbric Surfa						ydrophytic veg	
Sandy Re			Piedmont Flo						ology must be p	
Stripped N			Red Parent N	/laterial (F	21) (MLR	127, 147	7) ur	nless disturb	ed or problema	atic.
strictive La	yer (if observed):									
Type:									V	
			<u></u>				Hydric Soi	I Present?	Yes X	No
	nes):									
Depth (inch	nes):									
Depth (inch	nes):									
Depth (inch	nes):									
Depth (inch	nes):									
Depth (inch	nes):									
Depth (inch	nes):									
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Depth (inch	nes):									
Depth (inch	nes):									
Depth (inch	nes):									







S





Е



Project/Site: Buckeye Power-I	Nottingham	Citv/C	County: Harrison County		Sampling Date: 10/03/2023			
Applicant/Owner: FirstEnergy			Sampling Point: Upland BN-04					
Investigator(s): JFW		Section	on Townshin Range. S1		Camping Font.			
Landform (hillslope, terrace, et	to). Toeslope	L ocal rel	ief (concave, convex, nor	ne). Flat	Slone (%): 2			
candioini (illisiope, terrace, et	RR N MIRA 220	40 30645	iei (concave, convex, noi	ne). 064604	Slope (%) NAD 83			
Subregion (LRR or MLRA): LR	Marriatown silty old	Lat: 10.000 to	Long:		Datum: 14 15 00			
Soil Map Unit Name: Mwc3D:								
Are climatic / hydrologic condit								
Are Vegetation X, Soil X	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" ¡	present? Yes X No			
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)			
SUMMARY OF FINDIN	GS – Attach sit	te map showing san	npling point location	ons, transects	s, important features, etc.			
		X						
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	No X No X	Is the Sampled Area		V			
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX			
Remarks:	163	NO						
Upland data point along a far	m path.							
opiana data point diong a fai	m paul.							
HYDROLOGY								
Wetland Hydrology Indicat	ore:			Socondary India	ators (minimum of two required)			
Primary Indicators (minimum		check all that apply)						
Surface Water (A1)	Of othe is required, t	True Aquatic Plants ((P14)	Surface Soil	getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		Sparsely ve				
Saturation (A3)			es on Living Roots (C3)	Moss Trim L				
Water Marks (B1)		Presence of Reduced	-	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Reduction						
Drift Deposits (B3)		Thin Muck Surface (0			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	Stressed Plants (D1)			
Iron Deposits (B5)				Geomorphic	Position (D2)			
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqu	itard (D3)			
Water-Stained Leaves (F	39)				aphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral	l Test (D5)			
Field Observations:		Υ						
Surface Water Present?		X Depth (inches):						
Water Table Present?		X Depth (inches):			Y			
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	Hydrology Presei	nt? Yes NoX			
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								

Sampling Point: Upland BN-04

20	Absolute	Dominant		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 Number of Dominant
3				Species Across All Strata: 1 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)
6				That the GBL, 1710W, 011710.
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0.0
				FAC species0 x 3 =0.0
1				FACU species 100 x 4 = 400.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 100 (A) 400.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = $B/A = 4.0$
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0¹
	:	= Total Cove	er	l
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Schedonorus arundinaceus	90	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Trifolium pratense	10	No	FACU	
3				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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: <u>50.0</u>	20% of	total cover:	20.0	We advise All we advise a greater than 2 20 ft in
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				· · · · · · · · · · · · · · · · · · ·
2				
3				
4				
				Hydrophytic
5				Vegetation Present? YesNo X
500/ of total covery		= Total Cove		
		total cover:		
50% of total cover:Remarks: (Include photo numbers here or on a separate s	20% of			

Sampling Point: Upland BN-04

SOIL

Profile Desc	ription: (Describe t	o the depth r	needed to docum	ent the i	ndicator	or confirm	the absence	of indicator	s.)	
Depth	Matrix		Redox	Features	3					
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>		Remarks	
0 - 4	2.5YR 4/6	70	5Y 6/1	30			Clay	Dis	turbed; gravel	fines
-										
-										_
								-		
-										
								-		-
¹ Type: C=Co	ncentration, D=Depl	etion, RM=Re	duced Matrix, MS	=Masked	Sand Gra	ains.	² Location: P	L=Pore Lining	g, M=Matrix.	
Hydric Soil I	ndicators:						Indic	ators for Pro	blematic Hyd	Iric Soils³:
Histosol	(A1)	_	Dark Surface	(S7)			2	cm Muck (A	10) (MLRA 14	7)
Histic Ep	ipedon (A2)	_	Polyvalue Bel		. , .		148) (Coast Prairie F	Redox (A16)	
Black His		-	Thin Dark Su	, ,	•	47, 148)		(MLRA 147		
	n Sulfide (A4)	-	Loamy Gleye		F2)		F		odplain Soils (F	F19)
	Layers (A5)	-	Depleted Mat		->			(MLRA 136		(== 1.0)
	ck (A10) (LRR N) Below Dark Surface	(//11)	Redox Dark S Depleted Dark					/ery Shallow I Other (Explain	Dark Surface ((TF12)
	rk Surface (A12)	(A11) <u></u>	Redox Depre				_ `	Jillei (Explaili	illi Kelliaiks)	
	ucky Mineral (S1) (L	RR N.	Iron-Mangane			_RR N.				
	147, 148)		MLRA 136		, <u></u>	,				
	leyed Matrix (S4)	_	Umbric Surfac	•	MLRA 13	6, 122)	³ Inc	dicators of hyd	drophytic vege	tation and
	edox (S5)	_	Piedmont Flo						gy must be pr	
Stripped	Matrix (S6)	_	Red Parent M	laterial (F	21) (MLR	A 127, 147) ur	less disturbe	d or problemat	tic.
	ayer (if observed):									
Type: Ro	ck/gravel		_							
Depth (inc	hes): 4.0		_				Hydric Soi	I Present?	Yes	No X
Remarks:										





Soil

Project/Site: Buckeye Power-Nottingham	City/Co	ounty: Harrison County	Sampling Date: 10/03/2023
Applicant/Owner: FirstEnergy		State: (OH Sampling Point: Wetland BN-05
	Sectio	n, Township, Range: S25 T11N R	
Landform (hillslope, terrace, etc.): Lowland	Local relie	of (concave convey none). Conc	ave Slope (%). 2
Subregion (LRR or MLRA): LRR N, MLRA 220 L	40.300501	-81.066664	Slope (%) NAD 83
Soil Map Unit Name: CnD: Coshocton silt loam, 15	to 25 percent slopes	Long:	Datum None
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology _	significantly disturb	ped? Are "Normal Circumsta	ances" present? Yes X No
Are Vegetation, Soil, or Hydrology _	naturally problema	tic? (If needed, explain any	y answers in Remarks.)
SUMMARY OF FINDINGS – Attach site	e map showing sam	pling point locations, trar	nsects, important features, etc.
Hydrophytic Vegetation Present? Yes	X No		
Hydric Soil Present? Yes	X No	Is the Sampled Area	sXNo
Wetland Hydrology Present? Yes	X No	within a Wetland? Yes	s No
Remarks:			
Palustrine emergent wetland in maintained powerli	ine easement.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondar	ry Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch	neck all that apply)	Surfa	ace Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (E	314) Spar	sely Vegetated Concave Surface (B8)
X High Water Table (A2)	Hydrogen Sulfide Odo		nage Patterns (B10)
X Saturation (A3)	X Oxidized Rhizosphere	s on Living Roots (C3) Moss	s Trim Lines (B16)
Water Marks (B1)	Presence of Reduced	Iron (C4) Dry-S	Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	n in Tilled Soils (C6) Cray	fish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C	7) Satu	ration Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rem	arks) Stun	ted or Stressed Plants (D1)
Iron Deposits (B5)		X Geor	morphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shall	low Aquitard (D3)
Water-Stained Leaves (B9)			otopographic Relief (D4)
Aquatic Fauna (B13)		X FAC-	-Neutral Test (D5)
Field Observations:	v		
	X Depth (inches):		
	Deptil (iliches)	2	V
Saturation Present? Yes X No (includes capillary fringe)	Depth (inches):	Wetland Hydrology	Present? Yes X No
Describe Recorded Data (stream gauge, monitorin	ng well, aerial photos, prev	vious inspections), if available:	
Remarks:			
Remarks.			

Sampling Point: Wetland BN-05

20	Absolute	Dominant I	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		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				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species60 x 1 =60.0
Sapling/Shrub Stratum (Plot size: 15	20 /0 01	total oover		FACW species 50 x 2 = 100.0
1				FAC species0 x 3 =0.0
2				FACU species0 x 4 =0.0
				UPL species0 x 5 =0.0
3				Column Totals: 110 (A) 160.0 (B)
4				
5				Prevalence Index = B/A = 1.5
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:		= Total Cover		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	20 /0 01	total cover		data in Remarks or on a separate sheet)
1. Typha angustifolia	40	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Juncus effusus	20	Yes	FACW	
3. Mimulus ringens	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Onoclea sensibilis	10	No	FACW	·
5. Carex lurida	5	No	OBL	Definitions of Four Vegetation Strata:
6. Scirpus atrovirens	5	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Eupatorium perfoliatum	15	No	FACW	more in diameter at breast height (DBH), regardless of height.
8. Agrimonia parviflora	5	No	FACW	
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				Harb All barbaccas (non woods) plants regardless
	110	= Total Cove	er	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55.0</u>		total cover:		W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				The same of the sa
2				
3				
4				Livelyon by tio
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 s	heet.)			
				I
50% of total cover:	20% of	= Total Cove		

Sampling Point: Wetland BN-05

SOIL

Profile Desc	ription: (Describe t	o the depth				r confirm	the absence	of indicators.)	
Depth	Matrix			K Features	S1	. 2			
(inches)	Color (moist)	<u>%</u> _	Color (moist)		Type ¹	Loc²	Texture	Remarks	
0 - 18	10YR 3/2	90	10YR 5/8	10	Concen	PL_	Sandy clay loam		
-									
								-	
-									
								-	
-									
1- 0.0							2		
Type: C=Co	ncentration, D=Depl	etion, RM=F	teduced Matrix, MS	S=Masked	Sand Gra	ins.		L=Pore Lining, M=Matrix. ators for Problematic Hydric	Caila ³ .
-				(0-)				•	Solls :
Histosol			Dark Surface	. ,	00 (00) 455	I D A 44-		cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Be Thin Dark Su		. , .		140) (coast Prairie Redox (A16) (MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye			+1, 140)	D	iedmont Floodplain Soils (F19	2)
	Layers (A5)		X Depleted Mat	,	r2)			(MLRA 136, 147)	7)
	ck (A10) (LRR N)		Redox Dark S		·6)		V	ery Shallow Dark Surface (TF	12)
	Below Dark Surface	(A11)	Depleted Dar	,	,			Other (Explain in Remarks)	12)
	rk Surface (A12)	,	Redox Depre				<u>—</u>	()	
	ucky Mineral (S1) (L	RR N,	Iron-Mangane			.RR N,			
	147, 148)		MLRA 136		, , ,				
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 136	5, 122)	³ Ind	icators of hydrophytic vegetat	ion and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) (MLRA 14	l8) we	tland hydrology must be pres	ent,
Stripped	Matrix (S6)		Red Parent M	1aterial (F	21) (MLR A	127, 147	7) un	less disturbed or problematic.	
Restrictive L	ayer (if observed):								
Type:			<u> </u>						
Depth (inc	hes):		<u></u>				Hydric Soil	Present? Yes X	lo
Remarks:							1		











Soil

Project/Site: Buckeye Power-No	ottingham	Citv/C	County: Harrison County		Sampling Date: 10/03/2023			
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-05			
Investigator(s): JFW		Section	on Township Range. S2		Gampling Fount.			
Landform (hillslope, terrace, etc.					Slone (%): 4			
Subregion (LRR or MLRA): LRR	7 R N. MLRA 220	40.300521	-81.0	066645	Siope (70)			
Soil Map Unit Name: CnD: Cosh	nocton silt loam 1	Lat:	Long:		Datum: The Do			
Are climatic / hydrologic conditio								
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	present? Yes X No			
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)			
SUMMARY OF FINDING	S – Attach sit	e map showing san	npling point location	ons, transects	s, important features, etc.			
Lludraphytic Variation Dragon		No. X						
Hydrophytic Vegetation Present Hydric Soil Present?	T? Yes	No X No X	Is the Sampled Area		Y			
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX			
Remarks:								
Upland data point in maintained	d powerline easem	ent.						
	,							
HYDROLOGY								
Wetland Hydrology Indicator	 s:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of		check all that apply)		Surface Soil				
Surface Water (A1)		True Aquatic Plants (B14)		getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa				
Saturation (A3)			es on Living Roots (C3)	- ' '				
Water Marks (B1)		Presence of Reduced	d Iron (C4)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Reduction	on in Tilled Soils (C6)					
Drift Deposits (B3)		Thin Muck Surface (0	C7)	Saturation V	isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	Stressed Plants (D1)			
Iron Deposits (B5)				Geomorphic	Position (D2)			
Inundation Visible on Aeria	ıl Imagery (B7)			Shallow Aqu	uitard (D3)			
Water-Stained Leaves (B9)			Microtopogra	aphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra	I Test (D5)			
Field Observations:		.,						
Surface Water Present?		X Depth (inches):						
Water Table Present?		X Depth (inches):						
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	lydrology Prese	nt? Yes NoX			
(includes capillary fringe) Describe Recorded Data (streat	ım gauge, monitor	ing well, aerial photos, pre	vious inspections), if ava	ilable:				
Docoriso Moderada Bata (otroc	in gaage, memer	ing won, donar priotos, pro	vious inspositorioj, ii uva	masio.				
Remarks:								

Sampling Point: Upland BN-05

20	Absolute	Dominant I		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		Number of Dominant Species That Are ORL FACW or FAC: 0 (A)
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
5				Percent of Dominant Species That Are ORL FACW or FAC: 0.0 (A/R)
6				That Are OBL, FACW, or FAC: (A/B)
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
Sapling/Shrub Stratum (Plot size: 15				FACW species $0 \times 2 = 0.0$
1				FACUL species $\frac{15}{85}$ $\times 3 = \frac{45.0}{340.0}$
2				1 A00 species x +
3				01 L species
4				Column Totals:105 (A)410.0 (B)
5				Prevalence Index = B/A = 3.9
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:		= Total Cover:		No 4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5	20 /6 01	total cover		data in Remarks or on a separate sheet)
1. Poa annua	80	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Asclepias syriaca	5	No	FACU	
3. Verbesina alternifolia	15	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Daucus carota	5	No	UPL	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				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
500/ (/ /) 52.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 52.5 Woody Vine Stratum (Plot size: 30)	20% of	total cover: 2	21.0	Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
5				Hydrophytic Vegetation
<u> </u>		= Total Cove		Present? Yes No X
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s		_		

Sampling Point: Upland BN-05

SOIL

Profile Desc	ription: (Describe t	o the depth n	needed to docum	ent the ir	ndicator	or confirm	the absence	of indicate	ors.)	
Depth	Matrix		Redox	(Features	;					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remarks	
0 - 4	10YR 4/2	100					Silty clay			_
-								•		
							-			
			-							
-										
			-					· -		
-										
_										
							-			
¹ Type: C=Co	oncentration, D=Depl	etion, RM=Re	duced Matrix, MS	=Masked	Sand Gra	ins.	² Location: F	PL=Pore Lini	ing, M=Matrix.	
Hydric Soil I	ndicators:						Indic	ators for P	roblematic Hy	/dric Soils³:
Histosol	(A1)	_	Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 1	47)
	ipedon (A2)	_	Polyvalue Be	. ,	e (S8) (M	LRA 147,		,	e Redox (A16)	
Black His		-	Thin Dark Su				, <u>—</u>	(MLRA 14	, ,	
	n Sulfide (A4)	_	Loamy Gleye			, -,	F		oodplain Soils	(F19)
	Layers (A5)	_	Depleted Mat		_/		<u> </u>	(MLRA 13		(1.10)
	ck (A10) (LRR N)	=	Redox Dark S		6)		\		v Dark Surface	(TF12)
	Below Dark Surface	- (Δ11)	Depleted Dar						in in Remarks	
	rk Surface (A12)		Redox Depre				<u> </u>	Strict (Expla	iii iii ittoiliaiks	,
	lucky Mineral (S1) (L	DD N	Iron-Mangane			DD N				
		KK N, _			5 (F12) (I	-KK N,				
	147, 148)		MLRA 136	•	MI DA 40	C 400\	31	d: t - u e f -		untation and
	leyed Matrix (S4)	-	Umbric Surfa						ydrophytic veg	
	edox (S5)	-	Piedmont Flo						ology must be p	
	Matrix (S6)		Red Parent M	iateriai (F2	21) (WLR	4 127, 147	r) ur	niess disturb	ed or problem	atic.
	ayer (if observed):									
Type: Ro			-							V
Depth (inc	ches): <u>4.0</u>		=				Hydric Soi	I Present?	Yes	No X
Remarks:							•			





Soil

Project/Site: Buckeye Power-	City/County: Harri	son County	S	Sampling Date: 10/03/2023				
Applicant/Owner: FirstEnergy				Sta	nte. OH	Sampling Point: Wetland BN-06		
	Section Township	Section, Township, Range: S30 T10N R5W						
Landform (hillslope, terrace, et	tc.). Toeslope	1	ocal relief (concave	convex none).	Concave	Slone (%). 3		
Subregion (LRR or MLRA): LF	RR N, MLRA 220	40.294896	ocal relief (corleave,	-81.06887	76			
Soil Map Unit Name: RcB: Ric	hland silt loam 2 to	6 percent slopes		Long:		Datum: . R4SBC		
Are climatic / hydrologic condit								
Are Vegetation X, Soil	, or Hydrology	significant	ly disturbed?	Are "Normal Circu	umstances" pre	esent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally p	problematic?	(If needed, explai	n any answers	in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showin	ng sampling poi	nt locations,	transects, i	important features, etc.		
Lludranhutia Vanatatian Dua		X No.						
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	X No	Is the Sam	•	Υ			
Wetland Hydrology Present?			within a W	etland?	Yes X	No		
Remarks:	100_	110	_					
Palustrine emergent wetland	abutting a stream in	a cattle pasture.						
- and anno one gone trought	acatining a circuit ii	. a came pactarer						
HYDROLOGY								
Wetland Hydrology Indicat	ors:			Seco	ondary Indicato	rs (minimum of two required)		
Primary Indicators (minimum		check all that annly	·)	· · · · · · · · · · · · · · · · · · ·	Surface Soil C			
Surface Water (A1)	or one is required,	True Aquatic	•			tated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sul			Drainage Patte			
Saturation (A3)			zospheres on Living		Moss Trim Line			
Water Marks (B1)			Reduced Iron (C4)	· · · · · · · · · · · · · · · · · · ·				
Sediment Deposits (B2)			n Reduction in Tilled Soils (C6) Crayfish Burrows (C8)					
Drift Deposits (B3)		Thin Muck Su						
Algal Mat or Crust (B4)		Other (Explain						
Iron Deposits (B5)				X	Geomorphic Po	osition (D2)		
Inundation Visible on Ae	rial Imagery (B7)		Shallow Aquitard (D3)					
Water-Stained Leaves (I	39)		Microtopographic Relief (D4)					
Aquatic Fauna (B13)					FAC-Neutral To	est (D5)		
Field Observations:		V						
Surface Water Present?		X Depth (inche						
Water Table Present?		X Depth (inche				v		
Saturation Present?	Yes No _	X Depth (inche	es):	Wetland Hydro	logy Present?	Yes X No		
(includes capillary fringe) Describe Recorded Data (str	eam gauge, monitor	ring well. aerial pho	otos, previous inspec	l tions). if available	:			
	gg-,	д, с.с рс	, p	,,				
Remarks:								

__)

50% of total cover: ___

Sapling/Shrub Stratum (Plot size: 15)

Tree Stratum (Plot size: 30

Herb Stratum (Plot size: 5

3. Dichanthelium acuminatum

4. Schedonorus arundinaceus

Woody Vine Stratum (Plot size: 30

1. Acorus calamus

2. Juncus effusus

Absolute Dominant Indicator

% Cover Species? Status

= Total Cover

20% of total cover:__

= Total Cover

No

Yes

Yes

110 = Total Cover

20% of total cover: 22.0

= Total Cover

20% of total cover:

OBL

FACW

FAC

FACU

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

40

40

Sampling Point: Wetland BN-06 **Dominance Test worksheet:** Number of Dominant Species 2 __ (A) That Are OBL, FACW, or FAC: **Total Number of Dominant** 3 (B) Species Across All Strata: Percent of Dominant Species 0.67 That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 25 _ x 1 = __ OBL species 5____ x 2 = __ 10.0 FACW species 40 120.0 FAC species ___ x 3 = __ 40 ___ x 4 = __ 160.0 FACU species 0 0.0 x 5 = _ UPL species 110 315.0 (A) Column Totals: Prevalence Index = B/A = 2.9**Hydrophytic Vegetation Indicators:** No 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.01 No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Definitions of Four Vegetation Strata:** Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Yes X No ____ Present?

Remarks:	(Include	photo	numbers	here	or	on	а	se	parate	shee	t.)
----------	----------	-------	---------	------	----	----	---	----	--------	------	-----

50% of total cover: 55.0

50% of total cover:

Sampling Point: Wetland BN-06

SOIL

Depth inches)	Matrix Color (moist)	%	Color (moist)	<u>Feature</u> %	s Type ¹	Loc ²	Texture		Remarks	
0 - 18	10YR 4/1	75	5YR 3/4	25	Concen	M,PL	Sandy clay loam		Nemans	
								-		
-										
							·	-		
<u> </u>										
-										
-	_									
								-		
		etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gra	ins.	² Location: Pl	L=Pore Lin	ing, M=Matrix.	
dric Soil Inc									roblematic Hy	
Histosol (A			Dark Surface		(00) (00				(A10) (MLRA 1	•
Histic Epip			Polyvalue Bel		. , .		148) C		e Redox (A16)	
Black Histi	Sulfide (A4)		Thin Dark Sui			47, 148)	D	(MLRA 1	oodplain Soils	(E10)
	ayers (A5)		X Depleted Mat		(Г2)		<u> </u>	(MLRA 1		(F19)
	(A10) (LRR N)		Redox Dark S		- 6)		V		w Dark Surface	(TF12)
	Below Dark Surface	e (A11)	Depleted Dar	,	,				ain in Remarks	
	Surface (A12)	,	Redox Depre					` '	•	,
	cky Mineral (S1) (L	.RR N,	Iron-Mangane			.RR N,				
MLRA 1	147, 148)		MLRA 136	6)						
	yed Matrix (S4)		Umbric Surfa						ydrophytic veg	
_ Sandy Red			Piedmont Flo						ology must be p	
_ Stripped M			Red Parent M	laterial (F	21) (MLR	127, 14	7) unl	ess disturb	ped or problem	atic.
strictive La	yer (if observed):									
Туре:			<u></u>						V	
Depth (inch	es):						Hydric Soil	Present?	Yes X	No
marks:										











Soil

Proiect/Site: Buckeye Power-	ct/Site: Buckeye Power-Nottingham City/County: Harrison County						2023		
Applicant/Owner: FirstEnergy	· -				State: OH	Sampling Point: Upla	and BN-06		
Investigator(s): JFW Section, Township, Range: S30 T10N R5W						Gamping Form			
Landform (hillslope, terrace, e	tc.). Hillside		Local relief (concave	convey none	Concave	Slone (%)	. 3		
Subregion (LRR or MLRA): LI	RR N. MLRA 220	40.294913	Local Teller (corleave,	-81.06	68943	Olope (70)	·) 83		
Subregion (LRR or MLRA):	chland silt loam 2 to	_ Lat:	2	Long:		Datum: None			
Soil Map Unit Name: RcB: Ric									
Are climatic / hydrologic condi									
Are Vegetation X, Soil	, or Hydrology	/ significa	ntly disturbed?	Are "Normal C	Circumstances" p	resent? Yes X 1	No		
Are Vegetation, Soil	, or Hydrology	/naturally	problematic?	(If needed, ex	plain any answe	rs in Remarks.)			
SUMMARY OF FINDIN	GS – Attach si	te map showi	ing sampling poi	int location	ns, transects	, important featur	es, etc.		
Hydrophytic Vegetation Present? Yes No X Is the Sampled Area									
Hydric Soil Present?	Yes	No X		npled Area	.,	X			
Wetland Hydrology Present?	Yes	No X	— within a W	letland?	Yes	NoX			
Remarks:									
Upland data point in a cattle	pasture.								
HYDROLOGY									
Wetland Hydrology Indicat	ors:			5	Secondary Indica	tors (minimum of two re	auired)		
Primary Indicators (minimum		check all that app	olv)	_	Surface Soil Cracks (B6)				
Surface Water (A1)		True Aquati	• •	Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)			Sulfide Odor (C1)	_	Drainage Patterns (B10)				
Saturation (A3)			nizospheres on Living	Roots (C3)					
Water Marks (B1)		Presence of	f Reduced Iron (C4)	_	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Recent Iron	Reduction in Tilled So						
Drift Deposits (B3)		Thin Muck S	Surface (C7)	Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)		Other (Expla	ain in Remarks)	=	Stunted or S	tressed Plants (D1)			
Iron Deposits (B5)				_	Geomorphic	` '			
Inundation Visible on Ae				-	Shallow Aqui				
Water-Stained Leaves (I	B9)			Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Aquatic Fauna (B13)				_	FAC-Neutral	Test (D5)			
Field Observations: Surface Water Present?	Vaa Na	X Danth (in al	h = = \.						
		X Depth (inch							
Water Table Present?				Mada all		10 V N-	Х		
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inch	nes):	Wetland Hy	drology Presen	t? Yes No_			
Describe Recorded Data (str	eam gauge, monito	ring well, aerial pl	hotos, previous inspec	ctions), if availa	able:				
December									
Remarks:									

Sampling Point: Upland BN-06

20	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 1)		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove		OBL species x 1 =0.0
50% of total cover:	20% of	total cover:_		FACW species x 2 = 0.0
Sapling/Shrub Stratum (Plot size: 15				x 2 = x 2 =
1				rac species x s =
2				1 ACO species
3				OFL species X 3 =
4				Column Totals:95
5				Prevalence Index = B/A = 4.0
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.01
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5	70	V	FACIL	No Problematic Hydrophytic Vegetation (Explain)
1. Trifolium repens	70	Yes	FACU	
2. Schedonorus arundinaceus		Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Dipsacus fullonum	5	<u>No</u>	FACU	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				- W
6				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				Herb – All herbaceous (non-woody) plants, regardless
	95	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5		total cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No X
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth _	Matrix	<u></u> %	Redox Features Color (moist) % Type ¹ L	.oc² Te	exture	Domorto	
inches) _ 0 - 3	Color (moist) 10YR 4/2	100	Color (moist) % Type ¹ L		y loam	Remarks)
	1011(4/2				<u> </u>		
-							
-	_						
-							
_							
/pe: C=Con	centration, D=Depl	etion, RM=Re	educed Matrix, MS=Masked Sand Grains	Loc	cation: PL=Pore	Lining, M=Matri	x.
dric Soil In	dicators:				Indicators for	or Problematic I	Hydric Soils ³ :
_ Histosol (A	\1)		Dark Surface (S7)		2 cm Mu	ick (A10) (MLRA	147)
	pedon (A2)		Polyvalue Below Surface (S8) (MLR	A 147, 148)		rairie Redox (A16	
Black Hist	ic (A3)		Thin Dark Surface (S9) (MLRA 147,	148)	(MLR	A 147, 148)	
Hydrogen	Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmor	nt Floodplain Soil	s (F19)
Stratified I	_ayers (A5)		Depleted Matrix (F3)		(MLR	A 136, 147)	
2 cm Mucl	k (A10) (LRR N)		Redox Dark Surface (F6)		Very Sh	allow Dark Surfac	ce (TF12)
_ Depleted I	Below Dark Surface	(A11)	Depleted Dark Surface (F7)		Other (E	xplain in Remark	(s)
	Surface (A12)		Redox Depressions (F8)				
	cky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LRF	R N,			
	147, 148)		MLRA 136)				
	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 1			of hydrophytic ve	-
_ Sandy Re			Piedmont Floodplain Soils (F19) (ML			ydrology must be	
_ Stripped N			Red Parent Material (F21) (MLRA 1:	27, 147)	unless dis	sturbed or proble	matic.
	yer (if observed):						
Type: Rock			_				
Depth (inch	es): 3.0		_	Ну	dric Soil Prese	nt? Yes	NoX
emarks:							





Project/Site: Buckeye Power-I	Nottingham		Sampling Date: 10/04/2023				
	Applicant/Owner: FirstEnergy			State: OH	Sampling Point: Wetland BN-07		
Investigator(s): JFW			camping round				
Landform (hillslope, terrace, et					Slone (%). 1		
Subragion (LDD or MLDA). LF	RR N, MLRA 220	-81.0 -81.0	066843	Olope (70)			
Subregion (LRR or MLRA): LF Soil Map Unit Name: Or: Orro	ille silt loam 0 to 3 i	_ Lat: percent slopes_occasionall	v flooded		None		
Are climatic / hydrologic condit							
Are Vegetation X, Soil	, or Hydrology	/ significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No No		
Are Vegetation, Soil	, or Hydrology	/ naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showing san	npling point location	ons, transects	, important features, etc.		
Lhudronhutia Manatatian Dasa		X No					
Hydrophytic Vegetation Pres Hydric Soil Present?	ent: res_	X No	Is the Sampled Area	Y			
Wetland Hydrology Present?			within a Wetland?	Yes X	No		
Remarks:							
Palustrine emergent wetland	in the floodplain of	Standingstone Fork					
		3					
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)	or one to required,	True Aquatic Plants (B14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Par			
Saturation (A3)		X Oxidized Rhizospher		Moss Trim Li			
Water Marks (B1)		Presence of Reduced	• , ,		Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio					
Drift Deposits (B3)		Thin Muck Surface (0			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)				X Geomorphic	Position (D2)		
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (E	39)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				X FAC-Neutral	Test (D5)		
Field Observations:		V					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):			V		
Saturation Present?	Yes No _	X Depth (inches):	Wetland F	lydrology Presen	t? Yes X No		
(includes capillary fringe) Describe Recorded Data (str	eam gauge, monito	oring well, aerial photos, pre	vious inspections), if ava	ilable:			
(5.	33.,	3 - , , , , .	.,,				
Remarks:							

Sampling Point: Wetland BN-07

20		Dominant		Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: 30		Species?	Status	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				Demonstrat Deminerat Conscient		
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 1.0 (A/B)		
6						
7				Prevalence Index worksheet:		
		= Total Cov	er	Total % Cover of: Multiply by:		
50% of total cover:				OBL species 0 x 1 = 0.0		
Sapling/Shrub Stratum (Plot size: 15	_	•	<u> </u>	FACW species22		
1				FAC species50 x 3 =150.0		
				FACU species30 x 4 =120.0		
2			-	UPL species 0 x 5 = 0.0		
3				Column Totals: 102 (A) 314.0 (B)		
4				(1)		
5				Prevalence Index = $B/A = \frac{3.1}{1}$		
6				Hydrophytic Vegetation Indicators:		
7				No 1 - Rapid Test for Hydrophytic Vegetation		
8				Yes 2 - Dominance Test is >50%		
9				No 3 - Prevalence Index is ≤3.0¹		
	=	= Total Cov	er	No 4 - Morphological Adaptations ¹ (Provide supporting		
50% of total cover:	20% of	total cover:				
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)		
1. Trifolium repens	15	No	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)		
2. Juncus effusus	20	Yes	FACW			
3. Juncus tenuis	50	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must		
4 Prunella vulgaris	2	No	FACU	be present, unless disturbed or problematic.		
5. Lotus tenuis	5	No	FACU	Definitions of Four Vegetation Strata:		
6. Asclepias syriaca	5	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or		
7. Solanum carolinense	3	No No	FACU	more in diameter at breast height (DBH), regardless of		
8 Lysimachia nummularia		No	FACW	height.		
<u> </u>			TACW	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		
		= Total Cov		of size, and woody plants less than 3.28 ft tall.		
50% of total cover: <u>51.0</u>	20% of	total cover:	20.4	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		
·		= Total Cov		Present? Yes X No		
50% of total cover:						
Remarks: (Include photo numbers here or on a separate s						
Tremaiks. (include photo humbers here of on a separate s	neet.)					

Sampling Point: Wetland BN-07

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docum	nent the i	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix			Features				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks
0 - 18	10YR 4/1	85	5YR 4/6	15	Concen	PL_	Clay	
-								
			-					
								·
-								
-								
			-					
							2	·
	ncentration, D=Depl	etion, RM=Re	educed Matrix, MS	=Masked	Sand Gra	ins.		PL=Pore Lining, M=Matrix.
Hydric Soil I								ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface		/O-> /o-			2 cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Bel				148) (Coast Prairie Redox (A16)
Black His			Thin Dark Su	. ,	•	47, 148)	_	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	,	F2)		⊦	Piedmont Floodplain Soils (F19)
	Layers (A5)		X Depleted Mat		·C)		,	(MLRA 136, 147)
	ck (A10) (LRR N) Below Dark Surface	(//11)	Redox Dark S Depleted Dar					/ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	rk Surface (A12)	(A11)	Redox Depre				_ `	other (Explain in Kemarks)
	ucky Mineral (S1) (L	RR N	Iron-Mangane			RR N		
	. 147, 148)	,	MLRA 136		30 (i i.e.) (e	,		
	leyed Matrix (S4)		Umbric Surfa		MLRA 136	6. 122)	³ Inc	dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					lless disturbed or problematic.
	ayer (if observed):			•				· ·
Type:								
	hes):						Hydric Soil	I Present? Yes X No
Remarks:			_				11,111111111111111111111111111111111111	
remarks.								











Project/Site: Buckeye Power-I	Nottingham	City/County: Harrison County Sampling Date: 10/04/20					
Applicant/Owner: FirstEnergy			State: OH				
	nvestigator(s): JFW Section, Township, Range: S24 T10N R5W						
Landform (hillslope, terrace, et	Floodplain	L ocal rel	ief (concave, convex, nor	ne). Flat	Slone (%): 2		
Landionn (missiope, terrace, et	C.) RRN MIRA 220	40 293421	iei (concave, convex, noi	ne). 066722	Slope (%) NAD 83		
Subregion (LRR or MLRA): LF Soil Map Unit Name: Or: Orrvi	ille silt leam 0 to 2 r	Lat: 40.200421	Long: One	000722	Datum: 14/15 00		
Are climatic / hydrologic condit							
Are Vegetation X, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	present? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showing san	npling point location	ons, transects	s, important features, etc.		
Lludraphytic Variation Dres	ent? Vee						
Hydrophytic Vegetation Present?	Yes	No X No X	Is the Sampled Area		Y		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:	100						
Upland data point in a mowed	d field.						
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)	<u> </u>	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
High Water Table (A2)		Hydrogen Sulfide Od					
Saturation (A3)			es on Living Roots (C3)	Moss Trim L			
Water Marks (B1)		Presence of Reduced	-	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction					
Drift Deposits (B3)		Thin Muck Surface (0	C7)	Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	Stressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (E	39)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra	l Test (D5)		
Field Observations:		Υ					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):			Y		
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	Hydrology Prese	nt? Yes NoX		
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, pre	evious inspections), if ava	ilable:			
·							
Remarks:							

Sampling Point: Upland BN-07

20	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: 30)		Species?		Number of Dominant Species			
1				That Are OBL, FACW, or FAC:0 (A)			
2				Total Number of Dominant			
3				Species Across All Strata:1 (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:			
F00/ - (total		= Total Cove		OBL species x 1 =0.0			
50% of total cover:	20% of	total cover:		FACW species 0 x 2 = 0.0			
Sapling/Shrub Stratum (Plot size: 15)				FAC species 0 x 3 = 0.0			
1				FACU species 90 x 4 = 360.0			
2				UPL species15 x 5 =75.0			
3				Column Totals: 105 (A) 435.0 (B)			
4				Column Totals (A) (B)			
5				Prevalence Index = B/A = 4.1			
6				Hydrophytic Vegetation Indicators:			
7				No 1 - Rapid Test for Hydrophytic Vegetation			
8				No 2 - Dominance Test is >50%			
9				No 3 - Prevalence Index is ≤3.0 ¹			
500/ /· · · ·		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting			
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)			
Herb Stratum (Plot size: 5 1 Lotus tenuis	5	No	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)			
2. Schedonorus arundinaceus	60	Yes	FACU				
3. Plantago lanceolata	15	No	UPL	¹ Indicators of hydric soil and wetland hydrology must			
4 Galium aparine	15		FACU	be present, unless disturbed or problematic.			
5. Trifolium pratense	10	No No	FACU	Definitions of Four Vegetation Strata:			
<u> </u>			1700	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or			
6				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	105			Herb – All herbaceous (non-woody) plants, regardless			
50% of total cover: 52.5		= Total Cover:		of size, and woody plants less than 3.28 ft tall.			
Woody Vine Stratum (Plot size: 30)	20% 01	iolai cover.	21.0	Woody vine - All woody vines greater than 3.28 ft in			
				height.			
1							
2							
3							
4				Hydrophytic			
5				Vegetation Present? Yes No X			
50% of total cover:		= Total Cover:		100			
Remarks: (Include photo numbers here or on a separate s		total cover.					
Remarks. (include prioto numbers here of on a separate s	neet.)						

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the ir	ndicator	or confirm	the absence	of indicate	ors.)		
Depth	Matrix			k Features			_		_		
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type'	Loc ²	Texture		Remark	S	
0 - 18	10YR 4/2	100					Clay loam				
-											
-											
-											
1				 .			2 –				
	ncentration, D=Depl	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P				:1-3.
Hydric Soil I			D	(07)					roblematic		ous :
Histosol			Dark Surface		(00) (5)				A10) (MLRA		
	ipedon (A2)		Polyvalue Be				148) (Redox (A1	6)	
Black His	stic (A3) n Sulfide (A4)		Thin Dark Su Loamy Gleye			47, 148)	-	MLRA 14		ilo (E10)	
	Layers (A5)		Loarny Gleye Depleted Mat	,	-2)			MLRA 13)	oodplain So	iis (F 19)	
	ck (A10) (LRR N)		Redox Dark S		6)		\		v Dark Surfa	oce (TF12)	
	Below Dark Surface	(A11)	Depleted Dar						in in Remar		
	rk Surface (A12)	(,)	Redox Depre					7o. (=7.p.a.		,	
	ucky Mineral (S1) (L	RR N,	Iron-Mangane			_RR N,					
	147, 148)	,	MLRA 130		() (,					
	leyed Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	³ Inc	licators of h	ydrophytic v	egetation	and
	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) we	etland hydro	logy must b	e present,	
Stripped	Matrix (S6)		Red Parent M	1aterial (F2	21) (MLR	A 127, 147	7) un	less disturb	ed or proble	ematic.	
Restrictive L	ayer (if observed):										
Type:			_								
Depth (inc	:hes):						Hydric Soil	Present?	Yes	No_	X
Remarks:	<u> </u>						1 -				





Project/Site: Buckeye Power-Nottingham	City/County: Ha	rrison County	Sampling Date: 10/04/2023				
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland BN-08				
Investigator(s): JFW	Section Townsh		Gamping Form				
Landform (hillslope, terrace, etc.): Toeslope	Local relief (concav	e convex none). Concave	Slone (%). 5				
Subragion (LBB or MLBA), LRR N, MLRA 220	40.287852	-81.068303	Datum: NAD 83				
Subregion (LRR or MLRA): LRR N, MLRA 220 La Soil Map Unit Name: WmE: Westmoreland-Coshocto	n complex. 25 to 40 percent slope	_ Long:	Datum:				
Are climatic / hydrologic conditions on the site typical							
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes _^ No				
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)				
SUMMARY OF FINDINGS – Attach site	map showing sampling po	oint locations, transect	s, important features, etc.				
Hydrophytic Vegetation Present? Yes X	No						
Hydric Soil Present? Yes X	NI -	mpled Area Wetland?					
Wetland Hydrology Present? Yes X	No within a	Wetland? Yes X	No				
Remarks:							
Palustrine emergent wetland adjacent to pond in ma	intained powerline easement.						
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)				
Primary Indicators (minimum of one is required; che	ck all that apply)	Surface So	il Cracks (B6)				
Surface Water (A1)	Sparsely Ve	egetated Concave Surface (B8)					
High Water Table (A2)		atterns (B10)					
X Saturation (A3)	g Roots (C3) Moss Trim	Lines (B16)					
Water Marks (B1)	Dry-Seasor	n Water Table (C2)					
Sediment Deposits (B2)	_ Recent Iron Reduction in Tilled	Soils (C6) Crayfish Bu	ırrows (C8)				
Drift Deposits (B3)	_ Thin Muck Surface (C7)	Saturation	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	_ Other (Explain in Remarks)	Stunted or	Stressed Plants (D1)				
Iron Deposits (B5)		X Geomorphi	c Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Shallow Aq	uitard (D3)				
Water-Stained Leaves (B9)		Microtopographic Relief (D4)					
Aquatic Fauna (B13)		X FAC-Neutra	al Test (D5)				
Field Observations:							
	Depth (inches):						
	Depth (inches):		V				
Saturation Present? Yes X No (includes capillary fringe)	Depth (inches):0	Wetland Hydrology Prese	ent? Yes^ No				
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspe	ections), if available:					
Remarks:							

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

__)

50% of total cover: ___

Tree Stratum (Plot size: 30

Sapling/Shrub Stratum (Plot size: 15

Herb Stratum (Plot size: ⁵

1. Leersia oryzoides

3. Typha angustifolia

4. Impatiens capensis

5. Persicaria sagittata

6. Schoenoplectus tabernaemontani

Woody Vine Stratum (Plot size: 30

2. Juncus effusus

Absolute Dominant Indicator

% Cover Species? Status

= Total Cover

20% of total cover:__

= Total Cover

Yes

No

No

No

No

120 = Total Cover

20% of total cover: 24.0

= Total Cover

20% of total cover:

OBL

FACW

OBL

FACW

OBL

OBL

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

20

10

5

5

Sampling Point: Wetland BN-08 Dominance Test worksheet: Number of Dominant Species 2 __ (A) That Are OBL, FACW, or FAC: **Total Number of Dominant** 2 _ (B) Species Across All Strata: Percent of Dominant Species 1.0 That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: x 1 = OBL species 40 x 2 = ___ 80.0 **FACW** species 0 0.0 FAC species x 3 = __ 0 ___ x 4 = _ 0.0 FACU species 0 0.0 **UPL** species x 5 = 120 160.0 _ (A) Column Totals: Prevalence Index = B/A = 1.3**Hydrophytic Vegetation Indicators:** Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.01 No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Definitions of Four Vegetation Strata:** Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Yes X No _____ Present?

Remarks:	(Include	photo	numbers	here	or	on	а	se	parate	shee	t.)
----------	----------	-------	---------	------	----	----	---	----	--------	------	-----

50% of total cover: 60.0

50% of total cover:

	Matrix	0/		k Features	3 1	Loc ²	T t		Damada	
inches) 0 - 8	Color (moist) 10YR 3/1	<u>%</u> 100	Color (moist)	<u>%</u>	Type ¹	LOC	Texture Clay loam		Remarks	
8 - 18	Gley 1 4/10Y	85	Gley 1 2.5/N	15	Depletic	PL	Clay			
-										
-										
_										
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_										
							2			
	Concentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ns.	Location: F	PL=Pore Lin	ing, M=Matrix.	1.1. 0.11.3
	I Indicators:		D 10 ((07)					roblematic Hy	
Histoso			Dark Surface Polyvalue Be		oo (CO) /MI	D A 447		,	A10) (MLRA 1 4	47)
	Epipedon (A2) Histic (A3)		Polyvalue Be				140)	MLRA 14)	e Redox (A16)	
	gen Sulfide (A4)		X Loamy Gleye			, 140)			oodplain Soils ((F19)
	ed Layers (A5)		Depleted Mat		-)		<u> </u>	(MLRA 13		. 10)
	1uck (A10) (LRR N)		Redox Dark S		6)		\		v Dark Surface	(TF12)
Deplete	ed Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		(Other (Expla	nin in Remarks)	
	Dark Surface (A12)		Redox Depre							
	Mucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) (L	RR N,				
	RA 147, 148)		MLRA 130	•		400)	3,		1 1 2	
	Gleyed Matrix (S4)		Umbric Surfa						ydrophytic veg	
	Redox (S5) ed Matrix (S6)		Piedmont Flo Red Parent M						ology must be poed or problema	
	Layer (if observed):		Red Falent N	iateriai (F	ZI) (WILKA	127, 147) ui	iless distuit	ed of problems	atio.
Type:							Hydric Sci	I Present?	Yes X	No
Type:							I HVUIL SUI		162	NO
Depth (ir	nches):						, , , , , , , , , , , , , , , , , , , ,			
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Soil







Project/Site: Buckeye Power-N	Nottingham	City/0	County: Harrison County		Sampling Date: 10/04/2023
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-08
Investigator(s): JFW		Sacti	on Township Range. S2		Camping Font.
Landform (hillslope, terrace, et		Local rel	lief (concave, convex, nor	ne). Convex	Slone (%): 5
Coloradia (IDD and DA) LF	R N. MLRA 220	40.287737	-81.0	068221	Slope (70)
Subregion (LRR or MLRA): LR	/estmoreland-Cosh	_ Lat:	Long:		Datum:
Soil Map Unit Name: WmE: W					
Are climatic / hydrologic condit					
Are Vegetation, Soil	, or Hydrology	/ significantly distur	rbed? Are "Normal	Circumstances" p	oresent? Yes X No
Are Vegetation, Soil	, or Hydrology	/naturally problem	atic? (If needed, e	explain any answe	ers in Remarks.)
SUMMARY OF FINDING	GS – Attach si	te map showing san	npling point location	ons, transects	s, important features, etc.
Lludraphytic Vagatation Drag	ont? Voc	No. X			
Hydrophytic Vegetation Present?	ent? Yes	NoX NoX	Is the Sampled Area		Y
Wetland Hydrology Present?	Yes	No	within a Wetland?	Yes	NoX
Remarks:					
Upland data point in maintain	ed powerline easen	ment.			
opiana data point in manitani					
HYDROLOGY					
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum		check all that apply)		Surface Soil	
Surface Water (A1)	or one is required,	True Aquatic Plants ((B14)		getated Concave Surface (B8)
High Water Table (A2)		lor (C1)	Drainage Pa	= : : :	
Saturation (A3)		res on Living Roots (C3)	Moss Trim L		
Water Marks (B1)		Presence of Reduce			Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (0			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rei	marks)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (E	39)			Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:		V			
Surface Water Present?		X Depth (inches):			
Water Table Present?		X Depth (inches):			V
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monito	oring well, aerial photos, pre	evious inspections), if ava	nilable:	
(11	33.,	3 - ,			
Remarks:					

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

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata: 4 (B)
4				Barrant of Barrian of Oracina
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.25 (A/B)
6				(/\begin{align*} \text{//\text{//}} \\ //\text{//\
7				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 0 x 2 = 0.0
1 Rosa multiflora	10	Yes	FACU	FAC species50 x 3 =150.0
· · · · · · · · · · · · · · · · · · ·				FACU species 60 x 4 = 240.0
2				UPL species0 x 5 =0.0
3				Column Totals: 110 (A) 390.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 3.5
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
	10	= Total Cov	er	
50% of total cover: <u>5.0</u>	20% of	total cover:	5.0	No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Symphyotrichum pilosum	40	Yes	FAC	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago canadensis	20	Yes	FACU	
3. Rosa multiflora	20	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
4 Achillea millefolium	10	No	FACU	be present, unless disturbed or problematic.
5. Verbesina alternifolia	10		FAC	Definitions of Four Vegetation Strata:
<u> </u>		No	170	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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 Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>50.0</u>	20% of	total cover:	20.0	Was desided. All over the design of the COO file.
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				neight.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No X
		= Total Cov		Present? fes No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the ir	ndicator o	or confirm	the absence	e of indicat	ors.)		
Depth	Matrix		Redox	k Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remark	S	
0 - 18	10YR 5/4	100					Clay				
				<u> </u>							
					•		-				
								_			
-											
								_			
-											
					-						
¹ Type: C=Co	ncentration, D=Depl	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ins.	² Location:	PL=Pore Lin	ing, M=Matr	ix.	
Hydric Soil I	ndicators:						Indi	cators for P	roblematic	Hydric Soil	s³:
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck ((A10) (MLR	A 147)	
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	e (S8) (M	LRA 147,	148)	Coast Prairi	e Redox (A1	6)	
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 1	47, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	- 2)			Piedmont FI	loodplain So	ils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 1	36, 147)		
	ck (A10) (LRR N)		Redox Dark S					Very Shallov			
	Below Dark Surface	(A11)	Depleted Dar				_	Other (Expla	ain in Remar	ks)	
	rk Surface (A12)		Redox Depre								
	ucky Mineral (S1) (L	RR N,	Iron-Mangane		s (F12) (l	RR N,					
	147, 148)		MLRA 130				2				
	leyed Matrix (S4)		Umbric Surfa					ndicators of h		-	nd
	edox (S5)		Piedmont Flo					vetland hydro			
	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR	A 127, 147	') ı	ınless disturk	ped or proble	ematic.	
Restrictive L	.ayer (if observed):										
Type:			_								.
Depth (inc	ches):		_				Hydric Sc	il Present?	Yes	No	<u>×</u>
Remarks:											





Project/Site: Buckeye Power-Nottingham	City/County: _	Harrison County	Sampling Date: 10/03/2023				
Applicant/Owner: FirstEnergy		State. OH	Sampling Point: Wetland BN-09				
Investigator(s): JFW	Section Tow		camping round				
Landform (hillslope, terrace, etc.): Footslope	Local relief (cond	cave convey none). Concave	Slone (%). 3				
Subregion (LRR or MLRA): LRR N, MLRA 220	40.28047	-81.069005	Olope (76)				
Soil Map Unit Name: GuD2: Guernsey silty clay loa	Lat:	Long:	Datum: Definition Definition				
Are climatic / hydrologic conditions on the site typic							
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 answ	vers in Remarks.)				
SUMMARY OF FINDINGS – Attach site	e map showing sampling	point locations, transect	ts, important features, etc.				
Hudrophytic Variation Process	X No.						
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	X No	Sampled Area	·				
Wetland Hydrology Present? Yes	X No within	a Wetland? Yes	No				
Remarks:							
Palustrine emergent wetland in maintained powerl	ine easement.						
audennie einergen neuana in mannamea penen							
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)				
Primary Indicators (minimum of one is required; cl	heck all that apply)	Surface So					
Surface Water (A1)		egetated Concave Surface (B8)					
High Water Table (A2)		Patterns (B10)					
X Saturation (A3)		Lines (B16)					
	• • •	n Water Table (C2)					
	Presence of Reduced Iron (CRecent Iron Reduction in Tille		urrows (C8)				
Drift Deposits (B3)	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)				
	Other (Explain in Remarks)		Stressed Plants (D1)				
Iron Deposits (B5)		X Geomorphi					
Inundation Visible on Aerial Imagery (B7)		Shallow Ac					
Water-Stained Leaves (B9)			Microtopographic Relief (D4)				
Aquatic Fauna (B13)		X FAC-Neutr	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):8	Wetland Hydrology Pres	ent? Yes X No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitorii	na wall parial photos provious in	anactions) if available.					
Describe Recorded Data (stream gauge, monitori	ng well, aerial priolos, previous in	spections), ii avaliable.					
Remarks:							

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

Time Stratum (Plot size: 30 9s Cover Species? Status That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1
3.
\$ 5,0 Species Across All Strata: 1 (B) \$ 6,
5
5
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 80
Total Cover
Sapling/Shrub Stratum (Plot size 15 20% of total cover: 20%
Sapling/Shrub Stratum (Plot size: 15)
Saplina/Shrub Stratum (Plot size: 15 1.
1.
2.
UPL species 0 x 5 = 0.0
4
4.
6.
6.
7.
8.
9 = Total Cover
Total Cover 20% of total cover:
Solve of total cover: 20% of total cover: 30% of total cover: 20% of total cover: 20% of total cover: 20% of total cover: 21.0 3.5 3.5 3.2 3.5 3.2 3.5 3.2 3.5 3.2 3.5 3.2 3.5 3.5 3.2 3.5 3.5 3.2 3.5 3.5 3.2 3.5 3.5 3.2 3.5 3.5 3.5 3.2 3.5
Herb Stratum (Plot size: 9 1, Typha angustifolia 80 Yes OBL 2. Epilobium coloratum 10 No FACW 3. Eupatorium perfoliatum 10 No FACW 4. Solidago canadensis 5 No FACU 5. 6.
2 Epilobium coloratum 3 Eupatorium perfoliatum 4 Solidago canadensis 5 No FACU 5. 6. 7. 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10
3. Eupatorium perfoliatum 4. Solidago canadensis 5 No FACU 5. Solidago canadensis 5 No FACU 5. Solidago canadensis 5 No FACU 5. Solidago canadensis 6. Solidago canadensis 7. Solidago canadensis 8. Solidago canadensis 9. Solidago canadensis 10. Solidago canadensis 8. Solidago canadensis 8. Solidago canadensis 8. Solidago canadensis 9. Solidago canadensis 8. Solidago canadensis 8. Solidago canadensis 9. Solidago canadensis 10. Solidago
3. Eupatorium perfoliatum 4. Solidago canadensis 5 No FACU 5. Solidago canadensis 5 No FACU 5. Solidago canadensis 5 No FACU 5. Solidago canadensis 6. Solidago canadensis 7. Solidago canadensis 8. Solidago canadensis 9. Solidago canadensis 10. Solidago canadensis 8. Solidago canadensis 8. Solidago canadensis 8. Solidago canadensis 9. Solidago canadensis 8. Solidago canadensis 8. Solidago canadensis 9. Solidago canadensis 10. Solidago
4. Solidago canadensis 5. No FACU Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 8. 9. Sapling/Shrub — Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 11
5
6
more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 30) 1
8
9
9
11
105 = Total Cover 50% of total cover: 52.5 20% of total cover: 21.0
105 = Total Cover 50% of total cover: 52.5 20% of total cover: 21.0
Woody Vine Stratum (Plot size: 30) Woody vine – All woody vines greater than 3.28 ft in height. 1
Woody Vine Stratum (Plot size:
2
3
5 Hydrophytic 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.)
Nemarks. (Include prioto numbers here of our a separate sheet.)

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix			Features		. ?	_	
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0 - 18	5Y 4/1	80	7.5YR 3/4	20	Concen	M,PL	Clay loam	
-								
-								
-								
	ncentration, D=Depl	etion, RM=Re	educed Matrix, MS	=Masked	Sand Gra	ins.		L=Pore Lining, M=Matrix.
Hydric Soil I				:				ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface		(O-) (C-			cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Bel		. , .		148) C	coast Prairie Redox (A16)
Black His			Thin Dark Su	, ,	•	47, 148)	5	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	,	F2)		P	riedmont Floodplain Soils (F19)
	Layers (A5)		X Depleted Mat		·C)			(MLRA 136, 147)
	ck (A10) (LRR N) Below Dark Surface	(//11)	Redox Dark S Depleted Dark					ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	rk Surface (A12)	(11)	Redox Depre				_ ~	The (Explain in Kemarks)
	ucky Mineral (S1) (L	RR N	Iron-Mangane			RR N.		
	. 147, 148)	,	MLRA 136		30 (i i.e.) (e	,		
	leyed Matrix (S4)		Umbric Surfac		MLRA 136	6. 122)	³ Ind	icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	ayer (if observed):		<u></u>	•			1	·
Type:								
	hes):						Hydric Soil	Present? Yes X No No
Remarks:			_				,	
rtomanto.								











Soil

Project/Site: Buckeye Power-	Nottingham	Citv/C	county: Harrison County		Sampling Date: 10/03/2023
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-09
Investigator(s): JFW		Section	on Township Range. S2		Camping Font.
Landform (hillslope, terrace, e	to). Toeslope	Local reli	ef (concave, convex, nor	Concave	Slone (%). 4
candioini (illisiope, terrace, e	RR N MIRA 220	40 280433	er (concave, convex, nor	ne) ne8984	Slope (%) NAD 83
Subregion (LRR or MLRA): LI Soil Map Unit Name: GuD2: C	Cuernous eilts eless k	Lat: 40.200400	Long: One	000004	Datum: 14/12 00
Are climatic / hydrologic condi-					
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No
Are Vegetation, Soil					
SUMMARY OF FINDIN	GS – Attach si	te map showing san	npling point location	ons, transects	s, important features, etc.
Hudrophytic Vagotation Broo	vont? Von	NoX			
Hydrophytic Vegetation Pres Hydric Soil Present?	Yes	X No	Is the Sampled Area	.,	X
Wetland Hydrology Present?	Yes	No_X	within a Wetland?	Yes	NoX
Remarks:					
Upland data point in maintain	ned powerline easen	nent.			
HYDROLOGY					
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum		check all that apply)		Surface Soil	
Surface Water (A1)		B14)		getated Concave Surface (B8)	
Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)				Drainage Pa	= : : :
Saturation (A3)		es on Living Roots (C3)	Moss Trim L		
Water Marks (B1)		l Iron (C4)		Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)
Drift Deposits (B3)		Thin Muck Surface (C	27)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)					Position (D2)
Inundation Visible on Ae	• • • •			Shallow Aqu	
Water-Stained Leaves (I	39)				aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:		Υ			
Surface Water Present?		X Depth (inches):			
Water Table Present?		X Depth (inches):			ota Van No X
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					

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

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				(i)
3				Total Number of Dominant Species Across All Strata: 1 (B)
				Species Across Air Strata.
4. 5.				Percent of Dominant Species That Are ORL FACW or FAC: 0.0 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
				Prevalence Index worksheet:
7		Tatal Cau		Total % Cover of: Multiply by:
50% of total cover:		= Total Cover:		OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15	20 /6 01	lotal cover.		FACW species 0 x 2 = 0.0
				FAC species 0 x 3 = 0.0
1				FACU species 100 x 4 = 400.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 100 (A) 400.0 (B)
4				(1)
5				Prevalence Index = B/A = 4.0
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.01
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5) 1 Solidago canadensis	90	Voc	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
**	10	Yes		
2. Schedonorus arundinaceus		No	FACU	¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50.0	20% of	total cover:	20.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No _X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate shape)	neet.)			

	Matrix Color (moist)	%	Color (moist)	x Features	_Type ¹	Loc ²	Texture		Remarks	
(inches) 0 - 8	10YR 4/2	95	10YR 5/8	<u>%</u> 5	Concen	M	Clay loam		Remarks	
	101K 4/2		101K 5/6		Concen	IVI	Clay loan			
-										
								-		
<u> </u>										
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	to . to	-C DM	Deduced Metric M		01-0		21	Daniel Cal		
ype: C=Cor /dric Soil In		etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ns.			ng, M=Matrix. roblematic Hy	dria Caila
			5 1 5 1	(0-)					_	
_ Histosol (/			Dark Surface		· · (OO) (BA)	DA 447			A10) (MLRA 1	47)
	pedon (A2)		Polyvalue Be				148) C		Redox (A16)	
_ Black Hist			Thin Dark Su Loamy Gleye			17, 148)	D	(MLRA 14		/E40\
	Sulfide (A4) Layers (A5)		X Depleted Ma	,	-2)		^	(MLRA 13	oodplain Soils	(F19)
	k (A10) (LRR N)		Redox Dark	, ,	6)		V		, 147) Dark Surface	(TE12)
	Below Dark Surface	(A11)	Depleted Da	,	,				in in Remarks)	
	k Surface (A12)	, (, (, , , ,	Redox Depre					tiloi (Expla	iii iii recinane,	1
	icky Mineral (S1) (L	RR N.	Iron-Mangan			RR N.				
	147, 148)	,	MLRA 13		/o (i i_/ (_	,				
	eyed Matrix (S4)		Umbric Surfa	•	MLRA 136	. 122)	³ Indi	cators of h	ydrophytic veg	etation and
_ Sandy Re			Piedmont Flo						logy must be p	
	Matrix (S6)		Red Parent I						ed or problem	
	yer (if observed):			`	, ,		Ì		•	
	'						Hydric Soil	Present?	Yes X	No
Type: Clay									103	
Type: Clay Depth (inch							,			
Type: Clay Depth (inch							1 . ,			
Type: Clay Depth (inch							1 . ,			
Type: Clay Depth (inch							1 10 1111			
Type: Clay Depth (inch							1.7			
Type: Clay Depth (inch							1.7			
Type: Clay Depth (inch							1 7			
Type: Clay Depth (inch										
Type: Clay Depth (inch										
Type: Clay Depth (inch										
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Type: Clay Depth (inch										
Type: Clay Depth (inch										





Project/Site: Buckeye Power-Nottingham	Site: Buckeye Power-Nottingham City/County: Harrison County						
Applicant/Owner: FirstEnergy		State: OH Sampling Point: Wetland					
Investigator(s): JFW		Gamping Forms					
Landform (hillslope, terrace, etc.): Hillside			Slope (%): 8				
Subregion (LRR or MLRA): LRR N, MLRA 222	40.274919	Long: -81.069697	Datum: NAD 83				
Soil Map Unit Name: WnF: Westmoreland-Dekalb	complex, 40 to 70 percent	slopes NW/Leleas	:::action: PUBG				
Are climatic / hydrologic conditions on the site typical							
Are Vegetation, Soil, or Hydrology _							
Are Vegetation, Soil, or Hydrology _	naturally problema	itic? (If needed, explain any ans	wers in Remarks.)				
SUMMARY OF FINDINGS – Attach site	e map showing sam	pling point locations, transec	ts, important features, etc.				
Hydrophytic Vegetation Present? Yes	X No						
Hydric Soil Present? Yes	X No	Is the Sampled Area within a Wetland? Yes	X No				
	X No	within a Wetland:					
Remarks:	<u>'</u>						
Palustrine emergent wetland associated with a stre	eam in maintained powerl	ine easement.					
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)				
Primary Indicators (minimum of one is required; ch	neck all that apply)	Surface S	oil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants (I	B14) Sparsely \	/egetated Concave Surface (B8)				
	Hydrogen Sulfide Odd		Patterns (B10)				
X Saturation (A3)							
	Presence of Reduced		on Water Table (C2)				
	Recent Iron Reduction		Burrows (C8)				
Drift Deposits (B3)	Thin Muck Surface (C		Visible on Aerial Imagery (C9)				
	Other (Explain in Ren		Stressed Plants (D1)				
Iron Deposits (B5)			nic Position (D2)				
Inundation Visible on Aerial Imagery (B7)			quitard (D3)				
Water-Stained Leaves (B9)Aquatic Fauna (B13)		Microtopographic Relief (D4) X FAC-Neutral Test (D5)					
Field Observations:			rai rest (D3)				
	X Depth (inches):						
	Depth (inches):	7					
	Depth (inches):	Wetland Hydrology Pres	sent? Yes X No				
(includes capillary fringe)			No				
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, pre	vious inspections), if available:					
Remarks:							

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

__)

50% of total cover: ___

Sapling/Shrub Stratum (Plot size: 15

Tree Stratum (Plot size: 30

Herb Stratum (Plot size: 5

2. Eupatorium perfoliatum

4 Symphyotrichum prenanthoides

Woody Vine Stratum (Plot size: 30

1 Leersia oryzoides

3. Carex lurida

Absolute Dominant Indicator

% Cover Species? Status

= Total Cover

20% of total cover:___

= Total Cover

No

No

105 = Total Cover

= Total Cover

No

OBL

FACW

OBL

FAC

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

50% of total cover: 52.5 20% of total cover: 21.0

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

)

20

20

Sampling Point: Wetland BN-10 Dominance Test worksheet: Number of Dominant Species 1____(A) That Are OBL, FACW, or FAC: **Total Number of Dominant** 1 __ (B) Species Across All Strata: Percent of Dominant Species 1.0 _ (A/B) That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: 80 _ x 1 = _ OBL species 5____ x 2 = ___ 10.0 FACW species 20____ x 3 = __ 60.0 FAC species 0 ___ x 4 = __ 0.0 FACU species 0 0.0 UPL species x 5 = 105 150.0 _ (A) Column Totals: Prevalence Index = B/A = 1.4**Hydrophytic Vegetation Indicators:** Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.01 No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Definitions of Four Vegetation Strata:** Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Yes X No _____ Present?

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

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	indicator o	r confirm	the absence	of indicators.)	
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	S
0 - 6	10YR 2/2	90	5YR 4/6	10	Concen	М	Clay loam		
6 - 14	10YR 4/1	70	7.5YR 3/3	30	Concen	М	Clay loam		
14 - 18	5Y 4/1	80	Gley 1 2.5/N	20	Depletic	М	Clay loam		
-									_
				-					_
							-		
1Type: C-Ce	noontration D_Donl	otion DM	Boducod Motrix MS		d Sand Crai	ino	² Location: D	L - Boro Lining M-Motri	
Hydric Soil I	ncentration, D=Depl	elion, Rivi=	Reduced Matrix, Mc	5=IVIASKEC	a Sano Grai	ns.		L=Pore Lining, M=Matrix ators for Problematic F	
Histosol			Dark Surface	(97)				cm Muck (A10) (MLRA	-
	ipedon (A2)		Polyvalue Be		oo (S9) (M I	D A 1/17		Coast Prairie Redox (A16	
							146) ()
Black His			Thin Dark Su		, .	17, 148)	_	(MLRA 147, 148)	(=)
	n Sulfide (A4)		Loamy Gleye		(F2)		P	Piedmont Floodplain Soil	s (F19)
	Layers (A5)		X Depleted Mat	. ,				(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		X Redox Dark S	Surface (F	- 6)		V	ery Shallow Dark Surfac	ce (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		c	Other (Explain in Remark	(S)
Thick Da	rk Surface (A12)		Redox Depre	ssions (F	8)				
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) (L	RR N,			
MLRA	147, 148)		MLRA 13						
	leyed Matrix (S4)		Umbric Surfa		(MLRA 136	. 122)	³ Ind	licators of hydrophytic ve	egetation and
	edox (S5)		Piedmont Flo					etland hydrology must be	-
	Matrix (S6)		Red Parent N					less disturbed or proble	
	ayer (if observed):		Neu Faieill II	nateriai (i	ZI) (WILKA	127, 147	, un	liess disturbed or probler	matic.
Type:	ayer (ii observeu).								
	hes):						Hydric Soil	Present? Yes X	No
Remarks:	,								
itemarks.									





Soil







Project/Site: Buckeye Power-N	Nottingham	Citv/C	County: Harrison County		Sampling Date: 10/04/2023		
Applicant/Owner: FirstEnergy				State: OH Sampling Point: Upland BN			
Investigator(s): JFW		on Townshin Range. S2					
Landform (hillslope, terrace, et	 c.). Hillside	Local rel	ief (concave, convex, nor	ne). Concave	Slone (%): 8		
C (LDD ALLDA) LR	RR N. MI RA 222	40.274867	-81.6	069642	Globe (70) NAD 83		
Subregion (LRR or MLRA): LR Soil Map Unit Name: WnF: We	estmoreland-Dekalh	Lat:	t slopes		Datum:		
Are climatic / hydrologic condit							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDING	GS – Attach sit	te map showing san	npling point location	ons, transects	s, important features, etc.		
Lludraphytic Vegetation Dress	ont? Voc	NoX					
Hydrophytic Vegetation Present?	Yes	No X	Is the Sampled Area		X		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:							
Upland data point in maintain	ed powerline easem	nent.					
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)		True Aquatic Plants (B14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa	= : : :		
Saturation (A3)			es on Living Roots (C3)	Moss Trim L			
Water Marks (B1)		Presence of Reduced	d Iron (C4)				
Sediment Deposits (B2)		Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)		
Drift Deposits (B3)		Thin Muck Surface (0	C7)	Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aer	rial Imagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (E	39)		Microtopographic Relief (D4)				
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:		V					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):			V		
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX		
(includes capillary fringe) Describe Recorded Data (stre	 eam gauge, monitor	ring well, aerial photos, pre	vious inspections), if ava	nilable:			
,							
Remarks:							

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

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		Number of Dominant Species That Are OBL_FACW_or_FAC: 0 (A)
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
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 % Cover of: Multiply by:
50% of total cover:		= Total Cov		OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15)	20% 01	iolai covei.		FACW species 10 x 2 = 20.0
				FAC species 20 x 3 = 60.0
1				FACU species 80 x 4 = 320.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 110 (A) 400.0 (B)
4				
5				Prevalence Index = B/A = 3.6
6				Hydrophytic Vegetation Indicators:
7		-		No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.01
50% of total cover:		= Total Cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	2070 01	total oover.		data in Remarks or on a separate sheet)
1. Verbesina alternifolia	20	No	FAC	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago canadensis	30	Yes	FACU	
3. Rubus allegheniensis	50	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Persicaria pensylvanica	5	No	FACW	Definitions of Four Vegetation Strata:
5. Elymus virginicus	5	No	FACW	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.				Sapling/Shrub – Woody plants, excluding vines, less 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 Cov	 er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55.0</u>		total cover:		Was deades Allowed by Section 1997
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cov	er	Present? Yes No X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

ning, M=Matrix. Problematic Hydric Soils³: (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
Problematic Hydric Soils ³ : (A10) (MLRA 147) ie Redox (A16) 47, 148)
(A10) (MLRA 147) ie Redox (A16) 47, 148)
ie Redox (A16) 47, 148)
47, 148)
loodplain Soils (F19)
36, 147)
w Dark Surface (TF12) ain in Remarks)
ani ni Komarkoj
hydrophytic vegetation and
ology must be present,
bed or problematic.
Yes No X
-





Project/Site: Buckeye Power-Nottingham	Citv/County	: Harrison County	Sampling Date: 10/04/2023		
Applicant/Owner: FirstEnergy		State: OH Sampling Point: Wetland B			
Investigator(s): JFW		camping r omt			
Landform (hillslope, terrace, etc.): Toeslope	Local relief (co	oncave, convex, none); Concave	Slope (%): 3		
Subregion (LRR or MLRA): LRR N, MLRA 222	40.26806	-81.069888	Datum: NAD 83		
Soil Map Unit Name: WnE: Westmoreland-Dekalb	complex. 25 to 40 percent slop	es NIA/I alaasi	Datum :: R4SBC		
Are climatic / hydrologic conditions on the site typic					
Are Vegetation, Soil, or Hydrology _					
Are Vegetation, Soil, or Hydrology _	naturally problematic?	(If needed, explain any answ	vers in Remarks.)		
SUMMARY OF FINDINGS – Attach site	e map showing samplin	g point locations, transect	ts, important features, etc.		
Hydrophytic Vegetation Present? Yes	X No.				
Hydric Soil Present? Yes	Y NI-	ne Sampled Area nin a Wetland? Yes ^X	(N.		
Wetland Hydrology Present? Yes	X No	nin a Wetland? Yes^	No		
Remarks:					
Palustrine emergent wetland associated with strea	ams in maintained powerline ea	sement.			
	·				
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)		
Primary Indicators (minimum of one is required; cl	heck all that apply)	Surface So			
	True Aquatic Plants (B14)		egetated Concave Surface (B8)		
	Hydrogen Sulfide Odor (C ²		Patterns (B10)		
	Oxidized Rhizospheres on				
	Presence of Reduced Iron				
	Recent Iron Reduction in T		urrows (C8)		
Drift Deposits (B3)	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)		
	Other (Explain in Remarks		Stressed Plants (D1)		
Iron Deposits (B5)		X Geomorphi			
Inundation Visible on Aerial Imagery (B7)		Shallow Ac			
Water-Stained Leaves (B9)		Microtopographic Relief (D4)			
Aquatic Fauna (B13)		X FAC-Neutr			
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	_ Wetland Hydrology Prese	ent? Yes X No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)	na wall parial photos provious	inepactions) if available:			
Describe Recorded Data (stream gauge, monitorii	ng well, aerial priotos, previous	inspections), if available.			
Remarks:					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (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: 1 (B)
				Species Across Air Strata. (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:1.0 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove		
50% of total cover:	20% of	total cover:		OBE species
Sapling/Shrub Stratum (Plot size: 15				FACW species 25
1				FAC species x 3 = 0.0
2				FACU species0 x 4 =0.0
3				UPL species 0 x 5 =0.0
4				Column Totals:110 (A)135.0 (B)
5				Prevalence Index = B/A = 1.2
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	No 4 - Morphological Adaptations¹ (Provide supporting
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Onoclea sensibilis	20	No	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Schoenoplectus tabernaemontani	15	No	OBL	
3. Leersia oryzoides	60	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must
4 Scirpus atrovirens	10	No	OBL	be present, unless disturbed or problematic.
5. Impatiens capensis	5	No	FACW	Definitions of Four Vegetation Strata:
·· ·		INO	TAOW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	110	= Total Cove	<u></u>	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55.0</u>		total cover:		
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes X No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

SOIL

inches)	Matrix Color (moist)	%	Color (moist)	K Features %	Type ¹	Loc ²	Texture		Remarks	
0 - 3	10YR 3/2	70	10YR 4/6	30	Concen	M	Silty clay loam	<u> </u>	Remarks	
3 - 18	Gley 1 4/10Y	100					Clay loam	 I		
								<u> </u>		
-								_		
								_		
_								_		
_										
	ncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	Sand Grai	ns.	² Location:	PL=Pore Lin	ing, M=Matrix.	
dric Soil Ir									roblematic Hy	
Histosol (. ,		Dark Surface		(00) (11)				A10) (MLRA 14	47)
	ipedon (A2)		Polyvalue Be				148)		e Redox (A16)	
Black His	, ,		Thin Dark Su			7, 148)		(MLRA 14		(E40)
	n Sulfide (A4) Layers (A5)		X Loamy GleyeDepleted Mat		F2)			(MLRA 1	oodplain Soils ((F19)
	ck (A10) (LRR N)		Redox Dark S		6)				v Dark Surface	(TF12)
	Below Dark Surface	(A11)	Depleted Dar	•	,				in in Remarks)	
	rk Surface (A12)	,	Redox Depre				<u> </u>	` '	,	
Sandy Mu	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) (L	RR N,				
	147, 148)		MLRA 136	•						
	eyed Matrix (S4)		Umbric Surfa						ydrophytic veg	
	edox (S5)		Piedmont Flo						ology must be p	
	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 147	') u	nless disturb	ed or problema	atic.
	ayer (if observed):									
Туре:									., X	
							Hydric So	il Present?	Yes X	No
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
Depth (incl	nes):									
	nes):									
	nes):									
	nes):									
	nes):									
	nes):									











Project/Site: Buckeye Power-Nott	ingham	Citv/C	ounty: Harrison County		Sampling Date: 10/04/2023		
Applicant/Owner: FirstEnergy			State: OH Sampling Point: Upland B				
Investigator(s): JFW		on Township Range. S2		Camping Font.			
Landform (hillslope, terrace, etc.):	Terrace	L ocal reli	ef (concave, convey, nor	Convex	Slone (%). 4		
Landiomi (missope, terrace, etc.).	N MI RA 222 .	. 40 268172	er (concave, convex, nor	16). 169856	Slope (%) NAD 83		
Subregion (LRR or MLRA): LRR I Soil Map Unit Name: GuD2: Guer	racov cilty clay look	15: 15:25 172	Long:		Datum: Twis 30		
Are climatic / hydrologic conditions							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No		
Are Vegetation, Soil							
SUMMARY OF FINDINGS	i – Attach site	map showing sam	pling point location	ns, transects	s, important features, etc.		
		X					
Hydrophytic Vegetation Present? Hydric Soil Present?	? Yes	NoX	Is the Sampled Area		V		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:	163	110					
Upland data point in maintained	powerline easemen	t.					
HYDROLOGY							
Wetland Hydrology Indicators	:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of	one is required; che	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 Ode		Drainage Patterns (B10)			
Saturation (A3)	_		es on Living Roots (C3)	Moss Trim L	ines (B16)		
Water Marks (B1)	_	_ Presence of Reduced	I Iron (C4)				
Sediment Deposits (B2)	_	_ Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)		
Drift Deposits (B3)	_	_ Thin Muck Surface (C	27)	Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	_	Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aerial	Imagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (B9)			Microtopographic Relief (D4)				
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:							
		Depth (inches):					
		Depth (inches):					
	res No _X	Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX		
(includes capillary fringe) Describe Recorded Data (stream	n gauge, monitoring	well, aerial photos, pre	vious inspections), if ava	ilable:			
Doornoo recorded Data (etroan	r gaago, momening	won, donar priotoo, pro	viodo inopositorioj, ii ava	nabio.			
Remarks:							

20	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 Dominant
3				Species Across All Strata:3 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.33 (A/B)
6				That the OBE, I how, of the
7				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 30 x 2 = 60.0
				FAC species10 x 3 =30.0
1				FACU species 80 x 4 = 320.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 120 (A) 410.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 3.4
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0¹
	:	= Total Cov	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Agrimonia parviflora	30	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago canadensis	50	Yes	FACU	
3. Symphyotrichum pilosum	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must
4 Schedonorus arundinaceus	30	Yes	FACU	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	120	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60.0	20% of	total cover:	24.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1				Tong Till
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No X
FOOV of total account		= Total Cov		1103cm: 103 NO
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth _	Matrix	<u></u> %	Redox Features Color (moist) % Type¹ Loc	z² Textur		Domorko	
inches) _ 0 - 3	Color (moist) 10YR 4/2	100	Color (moist) % Type ¹ Loc	Clay lo		Remarks	
	1011(4/2						
-							
							
-							
_							
ype: C=Con	centration, D=Depl	letion, RM=Re	educed Matrix, MS=Masked Sand Grains.	² Locatio	n: PL=Pore Lin	ing, M=Matrix.	
dric Soil In		,	,	lı	ndicators for P	roblematic H	ydric Soils ³ :
_ Histosol (A	A1)		Dark Surface (S7)			(A10) (MLRA 1	
	edon (A2)	•	Polyvalue Below Surface (S8) (MLRA	147, 148)		e Redox (A16)	
Black Hist		•	Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 14		
	Sulfide (A4)	•	Loamy Gleyed Matrix (F2)	,		oodplain Soils	(F19)
	ayers (A5)		Depleted Matrix (F3)	_	 (MLRA 1:	•	,
	(A10) (LRR N)		Redox Dark Surface (F6)	_		w Dark Surface	e (TF12)
_ Depleted F	Below Dark Surface	e (A11)	Depleted Dark Surface (F7)	_	Other (Expla	ain in Remarks	s)
_ Thick Dark	Surface (A12)		Redox Depressions (F8)				
_ Sandy Mu	cky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LRR I	٧,			
MLRA 1	147, 148)		MLRA 136)				
	yed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	2)	³ Indicators of h	ydrophytic ve	getation and
_ Sandy Re			Piedmont Floodplain Soils (F19) (MLR			ology must be	
Stripped N			Red Parent Material (F21) (MLRA 127	, 147)	unless disturb	oed or problem	natic.
	yer (if observed):						
Type: Rock	(_				
Depth (inch	es): 3.0		_	Hydric	Soil Present?	Yes	No X
emarks:							





Project/Site: Buckeye Power-Nottingham	City/C	county: Harrison County		Sampling Date: 10/04/2023		
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland BN-12			
Investigator(s): JFW	Section	on Township Range S28		Gampling Forms		
Landform (hillslope, terrace, etc.): Toeslope	Local reli	ief (concave, convex, none	e): Concave	Slope (%): 7		
Subregion (LRR or MLRA): LRR N, MLRA 222	Lang81.00	69911				
Soil Map Unit Name: WnE: Westmoreland-Dek	Lat alb complex. 25 to 40 percen	t slopes	NIVA/I -1:f:	Datum		
Are climatic / hydrologic conditions on the site t						
Are Vegetation, Soil, or Hydrold						
Are Vegetation, Soil, or Hydrold	gy naturally problema	atic? (If needed, ex	plain any answer	s in Remarks.)		
SUMMARY OF FINDINGS – Attach	site map showing san	npling point location	ns, transects,	important features, etc.		
Hydrophytic Vegetation Present? Yes	X No					
Hydric Soil Present? Yes	X No	Is the Sampled Area	Yes X	M -		
Wetland Hydrology Present? Yes	V	within a Wetland?	res	No		
Remarks:						
Palustrine emergent wetland in maintained po	werline easement.					
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicat	tors (minimum of two required)		
Primary Indicators (minimum of one is require	d: check all that apply)	-	Surface Soil (
Surface Water (A1)	True Aquatic Plants (etated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Pat			
X Saturation (A3)		es on Living Roots (C3)	Moss Trim Lir			
Water Marks (B1)	Presence of Reduced			Vater Table (C2)		
Sediment Deposits (B2)	Recent Iron Reductio		Crayfish Burr			
Drift Deposits (B3)	Thin Muck Surface (C	C7)	Saturation Vis	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Rer	narks)	Stunted or St	ressed Plants (D1)		
Iron Deposits (B5)		-	Geomorphic I	Position (D2)		
Inundation Visible on Aerial Imagery (B7)		-	Shallow Aquitard (D3)			
Water-Stained Leaves (B9)			X Microtopographic Relief (D4)			
Aquatic Fauna (B13)			X FAC-Neutral	Test (D5)		
Field Observations:	Υ					
	Depth (inches):					
	Depth (inches):			X		
Saturation Present? Yes X No (includes capillary fringe)	Depth (inches):	Wetland Hy	drology Present	t? Yes^ No		
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, pre	vious inspections), if avail	able:			
Remarks:						

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata:1 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC:1.0 (A/B)
6				(VB)
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species75 x 1 =75.0
Sapling/Shrub Stratum (Plot size: 15				FACW species35 x 2 =70.0
				FAC species0 x 3 =0.0
1				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 110 (A) 145.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 1.3
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0¹
	:	= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Typha angustifolia	70	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago gigantea	15	No	FACW	
3. Schoenoplectus tabernaemontani	5	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
d Carex tribuloides	20	No	FACW	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	110	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55.0</u>		total cover:		Was divides. All was divided assets the 2.200 ft in
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				Total Title
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
		= Total Cove		riesent: resNo
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the depth	n needed to docum	ent the i	ndicator o	r confirm	the absence	of indicato	rs.)	
Depth	Matrix			Feature	s					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remarks	
0 - 6	10YR 4/2	85	7.5YR 4/6	15	Concen	PL	Sandy clay loam			
6 - 18	Gley 1 4/10Y	100								_
								-		
-										
										_
-										
								-		
								-		
¹ Type: C=Co	ncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location: P			
Hydric Soil I	ndicators:						Indica	ators for Pro	oblematic Hyd	lric Soils³:
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A	10) (MLRA 14	7)
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) (M I	LRA 147,	148) C	oast Prairie	Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 14	17, 148)		(MLRA 147	7, 148)	
X Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F2)		P	iedmont Flo	odplain Soils (F	- 19)
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136	6, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	⁷ 6)		V	ery Shallow	Dark Surface ((TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		C	ther (Explain	n in Remarks)	
Thick Da	rk Surface (A12)		Redox Depre	ssions (F	8)					
	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Mass	es (F12) (L	RR N,				
	147, 148)		MLRA 136	-						
	leyed Matrix (S4)		Umbric Surfac						drophytic vege	
	edox (S5)		Piedmont Flo						ogy must be pr	
	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 147	7) un	less disturbe	ed or problemat	tic.
Restrictive L	ayer (if observed):									
Type:										
Depth (inc	hes):						Hydric Soil	Present?	Yes X	No
Remarks:							1			







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Project/Site: Buckeye Power-Nottingham City/County: Harrison County					Sampling Date: 10/04/2023		
Applicant/Owner: FirstEnergy			State: OH Sampling Point: Upland BN				
Investigator(s): JFW Section, Township, Range: S28 T10N R5W							
Landform (hillslope, terrace, etc	 , . Hillside		ief (concave, convex, nor	ne). Undulating	Slone (%): 5		
Coloradia (IRR and RA) LR	R N. MLRA 222	-81.0	069841	Slope (70)			
Subregion (LRR or MLRA): LR Soil Map Unit Name: WnE: We	estmoreland-Dekalh	complex 25 to 40 percen	t slopes		Datum:		
Are climatic / hydrologic conditi							
Are Vegetation, Soil X	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDING	3S – Attach sit	e map showing san	npling point locatio	ons, transects	s, important features, etc.		
Lludraphytic Vegetation Press	nt? Voc	No. X					
Hydrophytic Vegetation Prese Hydric Soil Present?	Yes	No X No X	Is the Sampled Area		Y		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:							
Upland data point in maintaine	ed powerline easem	ent.					
	•						
HYDROLOGY							
Wetland Hydrology Indicato	ors:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)		True Aquatic Plants ((B14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa	= : : :		
Saturation (A3)			es on Living Roots (C3)	Moss Trim L			
Water Marks (B1)		Presence of Reduced	d Iron (C4)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction	on in Tilled Soils (C6)				
Drift Deposits (B3)		Thin Muck Surface (C	C7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (B	9)			<u> </u>	aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:		Υ					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):			Y		
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX		
Describe Recorded Data (stre	am gauge, monitor	ing well, aerial photos, pre	evious inspections), if ava	ilable:			
Remarks:							

20	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 1)		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (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: 0.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove		OBL species x 1 =0.0
50% of total cover:	20% of	total cover:		FACW species
Sapling/Shrub Stratum (Plot size: 15				1 ACW species X Z =
1				X 3 =
2				1 ACO species
3				VFL species
4				Column Totals:105
5				Prevalence Index = B/A = 4.0
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.01
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5) 1. Poa pratensis	60	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago canadensis	20	No	FACU	
3. Schizachyrium scoparium	15		FACU	¹ Indicators of hydric soil and wetland hydrology must
4 Tridens flavus	10	No No	FACU	be present, unless disturbed or problematic.
"		No	TACO	Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
	20% of	total cover:	21.0	Woody vine – All woody vines greater than 3.28 ft in height.
1				
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 s	sheet.)			

nches)	Matrix		Redox Features	2 -		D	
	Color (moist)	%	Color (moist) % Type ¹ Loc			Remarks	
) - 6	10YR 5/4	100		Cla	<u>y</u>		
-							
-							
							
-							
		etion, RM=	Reduced Matrix, MS=Masked Sand Grains.		n: PL=Pore Lin		3
ydric Soil Inc	dicators:				ndicators for P	roblematic Hydric	: Soils':
_ Histosol (A			Dark Surface (S7)	-		A10) (MLRA 147)	
_ Histic Epip			Polyvalue Below Surface (S8) (MLRA			e Redox (A16)	
_ Black Histi			Thin Dark Surface (S9) (MLRA 147, 14	48)	(MLRA 14		
	Sulfide (A4)		Loamy Gleyed Matrix (F2)	-		oodplain Soils (F19	9)
	ayers (A5)		Depleted Matrix (F3)		(MLRA 13	v Dark Surface (TF	10)
	k (A10) (LRR N) Below Dark Surface	a (Δ11)	Redox Dark Surface (F6)Depleted Dark Surface (F7)	-		in in Remarks)	12)
	s Surface (A12)	; (A11)	Redox Depressions (F8)	-	Other (Expla	iii iii iteiliaiks)	
	cky Mineral (S1) (L	RR N.	Iron-Manganese Masses (F12) (LRR N	N.			
	147, 148)	,	MLRA 136)	-,			
	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	2)	³ Indicators of h	ydrophytic vegetat	ion and
Sandy Red			Piedmont Floodplain Soils (F19) (MLR			logy must be pres	
Stripped M			Red Parent Material (F21) (MLRA 127			ed or problematic.	
estrictive La	yer (if observed):	-					
Type: Rock	(
Depth (inch	es): 6.0			Hydric	Soil Present?	Yes N	lo X
emarks:							
omano.							





Project/Site: Buckeye Power-Nottingham	Citv/C	ounty: Harrison County	Sampling Date: 10/04/2023			
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland BN-13				
Investigator(s): JFW Section, Township, Range: S28 T10N R5W						
Landform (hillslope, terrace, etc.): Toeslope	L ocal reli	ef (concave, convex, none). Concave	Slope (%): 6			
	Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: 40.262539 Long: -81.069976					
Soil Map Unit Name: WnE: Westmoreland-Dekal	b complex, 25 to 40 percent	slopes NW4 elec	DatumNone			
Are climatic / hydrologic conditions on the site typ						
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology	/ naturally problema	tic? (If needed, explain any ar	swers in Remarks.)			
SUMMARY OF FINDINGS – Attach si	te map showing sam	pling point locations, transe	ects, important features, etc.			
Hydrophytic Vegetation Present? Yes _						
Hydric Soil Present? Yes _	X No	Is the Sampled Area	X No			
Wetland Hydrology Present? Yes _	V	within a Wetland? Yes	NO			
Remarks:						
Palustrine emergent wetland associated with a s	tream in maintained powerli	ne easement.				
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Ir	ndicators (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 (E	314) Sparsely	Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odd		e Patterns (B10)			
X Saturation (A3)			im Lines (B16)			
Water Marks (B1)	Presence of Reduced	Iron (C4) Dry-Sea	son Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction		Burrows (C8)			
Drift Deposits (B3)	Thin Muck Surface (C		on Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Rem		or Stressed Plants (D1)			
Iron Deposits (B5)			phic Position (D2)			
Inundation Visible on Aerial Imagery (B7)			Aquitard (D3)			
Water-Stained Leaves (B9)			Microtopographic Relief (D4) X FAC-Neutral Test (D5)			
Aquatic Fauna (B13)			utrai Test (D5)			
Field Observations: Surface Water Present? Yes No	X Depth (inches):					
Water Table Present?	X Depth (inches):					
	Depth (inches):					
Saturation Present? Yes X No (includes capillary fringe)	Deptn (Inches):	wetland Hydrology Pro	esent? Yes X No			
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, prev	vious inspections), if available:				
Domostro						
Remarks:						

20	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 Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 1.0 (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
Sapling/Shrub Stratum (Plot size: 15				FACW species95
1				FAC species0 x 3 =0.0
2				FACU species0 x 4 =0.0
3				UPL species 0 x 5 = 0.0
4				Column Totals:105 (A)200.0 (B)
5				4.0
				Prevalence Index = B/A = 1.9
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
EOO/ of total covers		= Total Cov		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 1 Solidago gigantea	50	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carex tribuloides	30	Yes	FACW	
3. Juncus effusus	10	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Symphyotrichum novae-angliae	5	No	FACW	be present, unless disturbed or problematic.
5 Persicaria sagittata	10	No	OBL	Definitions of Four Vegetation Strata:
<u> </u>				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
50.5		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>52.5</u>	20% of	total cover:	21.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1				
2				
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 s	sheet.)			

epth nches)	Matrix Color (moist)	%	Color (moist)	<u>k Feature</u> %	Type ¹	Loc ²	Texture		Remarks	
) - 18	10YR 3/1	85	7.5YR 4/6	15	Concen	M	Clay loam	-	Nemans	
-							<u> </u>	-		
							-			
-										
<u> </u>										
							-			
-										
<u> </u>										
		etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: P	L=Pore Lin	ing, M=Matrix.	
ydric Soil In									roblematic Hy	
_ Histosol (A			Dark Surface						A10) (MLRA 1	47)
	pedon (A2)		Polyvalue Be				, 148) C		e Redox (A16)	
_ Black Hist	, ,		Thin Dark Su			17, 148)	_	(MLRA 14		(E40)
	Sulfide (A4) _ayers (A5)		Loamy Gleye		F2)		P		oodplain Soils	(F19)
	_ayers (A5) k (A10) (LRR N)		X Depleted Mat Redox Dark S		·6)		V	(MLRA 13	v Dark Surface	(TE12)
	Below Dark Surface	Δ (Δ11)	Depleted Dar	•	,				ain in Remarks	
	k Surface (A12)	, (, (, 1, 1,	Redox Depre				~	THOI (EXPIC	an in remarko,	,
	cky Mineral (S1) (L	RR N.	Iron-Mangane			RR N.				
	147, 148)	,	MLRA 130		, ,	,				
	eyed Matrix (S4)		Umbric Surfa	-	MLRA 136	i, 122)	³ Ind	icators of h	ydrophytic veg	etation and
_ Sandy Re			Piedmont Flo	odplain S	oils (F19) (MLRA 14	48) we	tland hydro	ology must be p	oresent,
_ Stripped N	Matrix (S6)		Red Parent M	laterial (F	21) (MLRA	127, 147	7) un	less disturb	ed or problem	atic.
estrictive La	yer (if observed):									
Туре:										
Depth (inch	ies):						Hydric Soil	Present?	Yes X	No
emarks:										





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Project/Site: Buckeye Power-No	ottingham	county: Harrison County		Sampling Date: 10/04/2023			
Applicant/Owner: FirstEnergy			State: OH	Sampling Point: Upland BN-13			
Investigator(s): JFW Section, Township, Range: S28 T10N R5W					Camping Font.		
Landform (hillslope, terrace, etc.)					Slone (%). 6		
Catanasia (LDD and DA) LRR	^{,.} ₹ N. MLRA 222	-81.	070045	Slope (70)			
Subregion (LRR or MLRA): LRR Soil Map Unit Name: WnE: Wes	tmoreland-Dekalh	complex 25 to 40 percent	t slopes		Datum:		
Are climatic / hydrologic condition							
Are Vegetation, Soil	, or Hydrology _	significantly distur	bed? Are "Normal	Circumstances"	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDING	S – Attach site	e map showing sam	npling point location	ons, transects	s, important features, etc.		
Lludraphytic Vagatation Dragon		No. X					
Hydrophytic Vegetation Presen Hydric Soil Present?	Ves	NoX NoX	Is the Sampled Area		Y		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:							
Upland data point in maintained	d powerline easeme	ent.					
	,						
HYDROLOGY							
Wetland Hydrology Indicator	 s:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of		heck all that apply)		Surface Soil			
Surface Water (A1)	•	True Aquatic Plants (B14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Pa	= : : :		
Saturation (A3)	-		es on Living Roots (C3)	Moss Trim L			
Water Marks (B1)	-	Presence of Reduced	-	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio					
Drift Deposits (B3)		Thin Muck Surface (C		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aeria	ıl Imagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (B9)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra	Test (D5)		
Field Observations:							
Surface Water Present?		X Depth (inches):					
Water Table Present?	Yes No	X Depth (inches):					
Saturation Present?	Yes No	X Depth (inches):	Wetland H	lydrology Presei	nt? Yes NoX		
(includes capillary fringe) Describe Recorded Data (strea	am gauge monitoriu	na well serial photos pre	vious inspections) if ava	ilahle:			
Describe Necorded Data (stream	in gauge, monitorii	ng well, aerial priotos, pre	vious irispections), ir ava	mabic.			
Remarks:							

20	Absolute	Dominant		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 Number of Dominant
3				Species Across All Strata: 2 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC:
6				That the OBE, 1 how, of the
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species10 x 1 =10.0
Sapling/Shrub Stratum (Plot size: 15		1010. 0010		FACW species 0 x 2 = 0.0
				FAC species 5 x 3 = 15.0
1				FACU species 90 x 4 = 360.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 105 (A) 385.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 3.7
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Verbesina alternifolia	5	No	FAC	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago canadensis	30	Yes	FACU	
3. Scirpus atrovirens	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4 Schedonorus arundinaceus	60	Yes	FACU	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	105	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>52.5</u>	20% of	total cover:	21.0	Weeds sine All woods since greater than 2.20 ft in
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No X
		= Total Cove		Fresent? TesNo
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

	olor (moiet) 0/ Lyno' Loc-	
<u>nches)</u> <u>Color (moist)</u> <u>%</u> <u>C</u> 0 - 18	olor (moist) % Type ¹ Loc ² 5YR 3/4 15 Concen M	Texture Remarks Clay loam
_ -		
<u>-</u>		
-		
		
		
-		
<u>-</u>		
-		
-		2
pe: C=Concentration, D=Depletion, RM=Redu	uced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
dric Soil Indicators:	D 1 0 ((OT)	Indicators for Problematic Hydric Soils
Histosol (A1)	Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2) Black Histic (A3)	Polyvalue Below Surface (S8) (MLRA 147, 148)	148) Coast Prairie Redox (A16) (MLRA 147, 148)
Hydrogen Sulfide (A4)	Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)
Stratified Layers (A5)	Depleted Matrix (F3)	(MLRA 136, 147)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)	
	_ Iron-Manganese Masses (F12) (LRR N,	
MLRA 147, 148)	MLRA 136)	
Sandy Gleyed Matrix (S4)	_ Umbric Surface (F13) (MLRA 136, 122)	³ Indicators of hydrophytic vegetation an
_ Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 148	
_ Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.
estrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes NoX
marks:		





Project/Site: Buckeye Power-Nottingham	City/County: Harrison County	;	Sampling Date: 10/05/2023
Applicant/Owner: FirstEnergy	City/County: Harrison County	State: OH	Sampling Point: Wetland BN-14
Investigator(s): JFW			
Landform (hillslope, terrace, etc.): Toeslope	Local relief (concave, convex, nor	ne). Concave	Slone (%): 3
Subragion (LBB or MLBA): LRR N, MLRA 222 Lat. 40.24	1276 Long81.0	070806	Datum: NAD 83
Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: 40.244 Soil Map Unit Name: WnE: Westmoreland-Dekalb complex, 2	5 to 40 percent slopes	NIVA/I -1:6:	
Are climatic / hydrologic conditions on the site typical for this ti			
Are Vegetation, Soil, or Hydrology sign			
Are Vegetation, Soil, or Hydrology nati	urally problematic? (If needed, e	explain any answers	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes X No_			
Hydric Soil Present? Yes X No_	is the Sampled Area	Yes X	M-
Wetland Hydrology Present? Yes X No_	within a wettana:	res	
Remarks:			
Palustrine emergent wetland in the floodplain of Brushy Fork	in maintained powerline easement.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicato	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all that	t apply)	Surface Soil C	racks (B6)
X Surface Water (A1) True A	quatic Plants (B14)	Sparsely Vege	etated Concave Surface (B8)
	en Sulfide Odor (C1)	Drainage Patte	
	ed Rhizospheres on Living Roots (C3)	Moss Trim Line	
	ce of Reduced Iron (C4)		/ater Table (C2)
	Iron Reduction in Tilled Soils (C6)	Crayfish Burro	
	uck Surface (C7)		ible on Aerial Imagery (C9)
	Explain in Remarks)		essed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		X Geomorphic P Shallow Aquita	
Water-Stained Leaves (B9)		Microtopograp	
Aquatic Fauna (B13)		X FAC-Neutral T	
Field Observations:			(-)
Surface Water Present? Yes X No Depth	(inches): 24		
Water Table Present? Yes X No Depth	,		
Saturation Present? Yes X No Depth		Hydrology Present	? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aer			
Describe Recorded Data (stream gauge, monitoring well, aer	iai priotos, previous inspections), ii ava	lilable.	
Remarks:			

20		Dominant		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:2 (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 2 (B)
4.				Species / torods / till othata.
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:1.0 (A/B)
6				Prevalence Index worksheet:
7				
	=	= Total Cov	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 species10 x 2 =20.0
1				FAC species0 x 3 =0.0
				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				40 000
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.0
6				
				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8		<u> </u>		Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	=	= Total Cov	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1 Phalaris arundinacea	70	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2 Nasturtium officinale	40	Yes	OBL	
	10		FACW	¹ Indicators of hydric soil and wetland hydrology must
3. Mentha spicata	10	No	FACW	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
				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
	120 _	= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60.0		total cover:		
Woody Vine Stratum (Plot size: 30)	2070 01	10101 00101.		Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hadaan bada
5			· · · · · · · · · · · · · · · · · · ·	Hydrophytic Vegetation
<u></u>		= Total Cov		Present? Yes X No
50% of total cover:				
		iolai covei.		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix	<u></u> %	Redox Features Color (moist) % Type ¹ Loc			Damada
nches) 0 - 18	Color (moist) Gley 1 3/10Y	100	Color (moist) % Type ¹ Loc	Silty c		Remarks
- 10					<u> </u>	
-						
_						
						
-						
-						
-						
pe: C=Co	ncentration, D=Depl	etion, RM=R	Reduced Matrix, MS=Masked Sand Grains.	² Locatio	on: PL=Pore Lin	ing, M=Matrix.
dric Soil II	ndicators:			I	Indicators for P	roblematic Hydric Soils
Histosol ((A1)		Dark Surface (S7)	_	2 cm Muck ((A10) (MLRA 147)
Histic Epi	ipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairi	e Redox (A16)
Black His	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 14	l8)	(MLRA 14	47, 148)
Hydroger	n Sulfide (A4)		X Loamy Gleyed Matrix (F2)	_	Piedmont FI	oodplain Soils (F19)
Stratified	Layers (A5)		Depleted Matrix (F3)		(MLRA 1	36, 147)
2 cm Mud	ck (A10) (LRR N)		Redox Dark Surface (F6)	_		w Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dark Surface (F7)	-	Other (Expla	ain in Remarks)
	rk Surface (A12)		Redox Depressions (F8)			
	ucky Mineral (S1) (L	RR N,	Iron-Manganese Masses (F12) (LRR N	l,		
	147, 148)		MLRA 136)		2	
	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122			nydrophytic vegetation an
	edox (S5)		Piedmont Floodplain Soils (F19) (MLR			ology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 127)	, 147)	unless disturb	ped or problematic.
strictive L	ayer (if observed):					
Туре:			<u> </u>			
Depth (inc	hes):		<u> </u>	Hydric	Soil Present?	Yes X No
marks:				l.		







Ν



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Project/Site: Buckeye Power-Nott	ingham	City/C	county: Harrison County		Sampling Date: 10/05/2023	
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-14	
Investigator(s): JFW		Section	on Township Range. S2		Oampling Form.	
Landform (hillslope, terrace, etc.):					Slone (%): 2	
Subregion (LRR or MLRA): LRR 1	N. MLRA 222	40.244275	-81.0	070805	Slope (70)	
Soil Map Unit Name: WnE: Westr	noreland-Dekalb cor	nnley 25 to 40 percen	t slopes		Datum:	
Are climatic / hydrologic conditions						
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	oresent? Yes X No	
Are Vegetation, Soil	_, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS	– Attach site n	nap showing sam	npling point location	ns, transects	s, important features, etc.	
Lludranhutia Vagatatian Dragant	. Van	No. X				
Hydrophytic Vegetation Present? Hydric Soil Present?	? Yes	NoX	Is the Sampled Area		Y	
Wetland Hydrology Present?	Yes		within a Wetland?	Yes	NoX	
Remarks:						
Upland data point in maintained p	powerline easement.					
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of o		k all that apply)		Surface Soil		
Surface Water (A1)	•	True Aquatic Plants (B14)		getated Concave Surface (B8)	
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Patterns (B10)		
Saturation (A3)	_		es on Living Roots (C3)	Moss Trim L		
Water Marks (B1)		Presence of Reduced	d Iron (C4)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)		Thin Muck Surface (C	27)	Saturation V	isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or S	stressed Plants (D1)	
Iron Deposits (B5)				Geomorphic	Position (D2)	
Inundation Visible on Aerial	Imagery (B7)			Shallow Aqu	itard (D3)	
Water-Stained Leaves (B9)				Microtopogra	aphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	Test (D5)	
Field Observations:	.,					
		Depth (inches):				
		Depth (inches):				
	'es No _X	Depth (inches):	Wetland H	lydrology Presei	nt? Yes NoX	
(includes capillary fringe) Describe Recorded Data (stream	n gauge, monitoring	well, aerial photos, pre	vious inspections), if ava	ilable:		
Doornoo Noordou Data (biroan	r gaage, memering t	won, aoriai priotos, pro	riodo inopodionoj, ii dva	masio.		
Remarks:						

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?	Status	Number of Dominant Species That Are OBL FACW or FAC: 0 (A)
1,				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.0 (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
Sapling/Shrub Stratum (Plot size: 15				FACW species0 x 2 =0.0
1				FAC species5 x 3 =15.0
2				FACU species70 x 4 =280.0
				UPL species0 x 5 =0.0
3				Column Totals:75
4				,,,,,,,,,,,,,,
5				Prevalence Index = B/A = 3.9
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9			-	No 3 - Prevalence Index is ≤3.01
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)	70		E4.011	No Problematic Hydrophytic Vegetation ¹ (Explain)
1. Schedonorus arundinaceus	70	Yes	FACU	1 residing the regulation (Explain)
2. Solidago canadensis	20	No	FACU	1 Indicators of hydric soil and watland hydrology must
3. Rosa multiflora	20	No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Symphyotrichum pilosum	5	No	FAC	Definitions of Four Vegetation Strata:
5				John Mone of Four Pogotation Gradua
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8				noight.
			-	Sapling/Shrub – Woody plants, excluding vines, less
				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				
11	115			Herb – All herbaceous (non-woody) plants, regardless
575		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>57.5</u>	20% of	total cover:_	23.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1				
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 s	heet.)			
	,			

Depth	Matrix		needed to document the indicator or con Redox Features	_		
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc ²		Remark	S
0 - 18	10YR 3/2	100		Clay loam		
-						
 -						
-						
-						
 -						
<u>-</u>						
-						
Type: C-Cor	centration D-Den	etion PM-P	educed Matrix, MS=Masked Sand Grains.	² Location: PI	=Pore Lining, M=Matri	iv.
ydric Soil In		elion, Kivi=K	educed Matrix, MS=Masked Sand Grains.		tors for Problematic	
Histosol (Dark Surface (S7)		cm Muck (A10) (MLRA	•
	pedon (A2)		Polyvalue Below Surface (S8) (MLRA 1		oast Prairie Redox (A1	
Black His			Thin Dark Surface (S9) (MLRA 147, 14)		(MLRA 147, 148)	-,
	Sulfide (A4)		Loamy Gleyed Matrix (F2)		edmont Floodplain Soi	ls (F19)
	Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)	- (-)
	k (A10) (LRR N)		Redox Dark Surface (F6)	V	ery Shallow Dark Surfa	ce (TF12)
	Below Dark Surface	e (A11)	Depleted Dark Surface (F7)		ther (Explain in Remar	
Thick Dar	k Surface (A12)		Redox Depressions (F8)			
Sandy Mu	icky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LRR N	,		
MLRA	147, 148)		MLRA 136)			
	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)		cators of hydrophytic v	
Sandy Re			Piedmont Floodplain Soils (F19) (MLRA		tland hydrology must b	
	Matrix (S6)		Red Parent Material (F21) (MLRA 127,	147) unl	ess disturbed or proble	matic.
Restrictive La	ayer (if observed):					
Туре:			_			
Depth (inch	nes):		_	Hydric Soil	Present? Yes	NoX
Remarks:						
veillaiks.						
veillaiks.						
veillaiks.						
veillains.						
AGIIIAINS.						
AGIIIAINS.						
AGIIIAINS.						
AGIIIAINS.						
GIII al NS.						
AGIIIAI NS.						
GHAINS.						
GIII al NS.						
GHAINS.						
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AGIII INS.						
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AGIIIAI N.S.						
AGIII al NS.						
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AGIII IN S.						
zilidins.						





Project/Site: Buckeye Power-Nottingham	City/County: Harr	ison County	Sampling Date: 10/05/2023
Applicant/Owner: FirstEnergy		State	Sampling Date: 10/05/2023 : OH Sampling Point: Wetland BN-
Investigator(s): MJA	Section Township	Range. S 26 T 10	N R 5W
Landform (hillslope, terrace, etc.): Gulch or Gully	Local relief (concave	convey none). Co	ncave Slone (%): 5-10
Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: 40.23	Local relief (concave)	, convex, none)	Slope (%) NAD 83
Soil Map Unit Name: GuD2: Guernsey silty clay loam, 15 to 2	25 percent slopes eroded	Long:	Datum:
Are climatic / hydrologic conditions on the site typical for this			
Are Vegetation, Soil X, or Hydrology sig	nificantly disturbed?	Are "Normal Circum	nstances" present? Yes X No
Are Vegetation, Soil, or Hydrology na	turally problematic?	(If needed, explain a	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing sampling po	int locations, tr	ansects, important features, etc
Hydrophytic Vegetation Present? Yes X No			
Hydrophytic Vegetation Present? Yes No_ Hydric Soil Present? Yes No_	is the ban	pled Area	Υ
Wetland Hydrology Present? Yes X No		/etland?	/esX No
Remarks:			
Palustrine emergent wetland in active cow pasture. Soils dis approximately 20 feet downslope and north of wetland.	turbance from cows presen	t. Wetland flows into	an ephemeral stream which begins
HYDROLOGY			
Wetland Hydrology Indicators:		Second	dary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all the	at apply)	· · · · · · · · · · · · · · · · · · ·	urface Soil Cracks (B6)
	Aquatic Plants (B14)		parsely Vegetated Concave Surface (B8)
	gen Sulfide Odor (C1)		rainage Patterns (B10)
	zed Rhizospheres on Living		oss Trim Lines (B16)
	nce of Reduced Iron (C4)		y-Season Water Table (C2)
Sediment Deposits (B2) Recer	nt Iron Reduction in Tilled S	oils (C6) Cr	ayfish Burrows (C8)
Drift Deposits (B3) Thin M	Muck Surface (C7)	Sa	aturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other	(Explain in Remarks)	St	unted or Stressed Plants (D1)
Iron Deposits (B5)		<u>X</u> Ge	eomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			nallow Aquitard (D3)
Water-Stained Leaves (B9)			crotopographic Relief (D4)
Aquatic Fauna (B13)			AC-Neutral Test (D5)
Field Observations:	1		
Surface Water Present? Yes X No Dept			
Water Table Present? Yes No _X Dept			Y
Saturation Present? Yes X No Dept (includes capillary fringe)	h (inches):	Wetland Hydrolo	gy Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, as	erial photos, previous inspec	ctions), if available:	
Remarks:			
Remarks.			

20	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				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 1.0 (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 x 1 = 110.0
Sapling/Shrub Stratum (Plot size: 15				FACW species 60
1				FAC species0 x 3 =0.0
2				FACU species0 x 4 =0.0
3				UPL species0 x 5 =0.0
4				Column Totals:170 (A)230.0 (B)
5				1.4
6				Prevalence Index = B/A = 1.4
				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
E09/ of total cover:		= Total Cov		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 1 Leersia oryzoides	50	Yes	OBL	No Problematic Hydrophytic Vegetation (Explain)
2. Carex frankii	40	Yes	OBL	
3. Eupatorium perfoliatum	20		FACW	¹ Indicators of hydric soil and wetland hydrology must
	40	No		be present, unless disturbed or problematic.
4. Juncus effusus		Yes	FACW	Definitions of Four Vegetation Strata:
5. Scirpus atrovirens	20	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	170	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>85.0</u>	20% of	total cover:	34.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				_
2				
3				
4				Historialists
5				Hydrophytic 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 s	heet.)			1
` '	,			

	۵)	Matrix Color (moist)	%		Feature		Loc ²	Toytura		Domorko	
<u>nches</u> 0 -		10YR 3/2	95	Color (moist) 5YR 4/4	<u>%</u> 5	Type ¹ Concen	PL	Texture Silty loam		Remarks	
3 -		7.5YR 5/4	100					Clay			
		7.011(0/1			-						
-											
-											
-											
-											
_											
-											
			letion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ns.	² Location: F	PL=Pore Lin	ing, M=Matrix.	
		ndicators:								roblematic Hy	
_	stosol (,		Dark Surface		(00) (00)			,	A10) (MLRA 1	47)
		pedon (A2)		Polyvalue Bel				148)		e Redox (A16)	
		tic (A3) Sulfide (A4)		Thin Dark Sur			17, 140)		(MLRA 14	oodplain Soils	(F10)
		Layers (A5)		Depleted Mate	,)			(MLRA 13		(1 10)
		ck (A10) (LRR N)		X Redox Dark S		⁻ 6)		,		v Dark Surface	(TF12)
_	•	Below Dark Surface	e (A11)	Depleted Dark				(Other (Expla	in in Remarks))
		k Surface (A12)		Redox Depres							
		ucky Mineral (S1) (L	_RR N,	Iron-Mangane		es (F12) (L	RR N,				
		147, 148) eyed Matrix (S4)		MLRA 136 Umbric Surfac	•	MI D A 126	122\	3 _{ln} .	dicators of h	ydrophytic veg	otation and
		edox (S5)		Piedmont Floo						ology must be p	
		Matrix (S6)		Red Parent M						ed or problema	
		ayer (if observed):			`	/ (1		'	
Тур	e:										
								Hydric Soi	I Present?	Yes X	No
	th (incl	nes):									
Dep		nes):									
Dep		nes):									
Dep		nes):									
Dep		nes):									
Dep		nes):									
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Project/Site: Buckeye Power-Nottingham	City/County: Har	rison County	Sampling Date: 10/05/2023		
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland BN-15		
Investigator(s): MJA	Section Townsh		<u> </u>		
Landform (hillslope, terrace, etc.): Hillside			Slope (%): 15-20		
LRR N. MI RA 222	Local relief (concave	-81.071085	Slope (%) NAD 83		
Subregion (LRR or MLRA): LRR N, MLRA 222 Soil Map Unit Name: GuD2: Guernsey silty clay loa	Lat:	_ Long:	Datum: W. 2 00		
Are climatic / hydrologic conditions on the site typic					
Are Vegetation, Soil, or Hydrology _	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No		
Are Vegetation, Soil, or Hydrology _		(If needed, explain any answe			
SUMMARY OF FINDINGS – Attach site	e map showing sampling po	int locations, transects	s, important features, etc.		
Hydrophytic Vegetation Present? Yes	NoX				
	No X	mpled Area	NoX		
	No X within a \	vetiand? Yes	No		
Remarks:					
Upland data point in active cow pasture.					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is required; c	heck 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 Pa			
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 S	Soils (C6) Crayfish Bur	rows (C8)		
1 — · · · ·	Thin Muck Surface (C7)		isible on Aerial Imagery (C9)		
	Other (Explain in Remarks)		Stressed Plants (D1)		
Iron Deposits (B5)			Position (D2)		
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu			
Water-Stained Leaves (B9) Aquatic Fauna (B13)		Microtopogra	aphic Relief (D4)		
Field Observations:		1 AO-Nedita	r rest (D3)		
	X Depth (inches):				
	X Depth (inches):				
	X Depth (inches):	Wetland Hydrology Preser	nt? Yes No X		
(includes capillary fringe)			nt: resNo		
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspe	ctions), if available:			
Remarks:					
Tromano.					

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: 3 (B)
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.33 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove		
50% of total cover:	20% of	total cover:		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15				X Z =
1				FAC species35
2				FACU species110
3				UPL species0 x 5 =0.0
4				Column Totals:145 (A)545.0 (B)
5				Prevalence Index = B/A = 3.8
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				I — · · · · · · · · · · · · · · · · · ·
9.				No 2 - Dominance Test is >50%
		= Total Cove		No 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:				No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5		_		data in Remarks or on a separate sheet)
1. Solidago canadensis	60	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Schedonorus arundinaceus	30	Yes	FACU	
3. Phleum pratense	20	No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 Symphyotrichum pilosum	35	Yes	FAC	
5				Definitions of Four Vegetation Strata:
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of height.
7				neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				111) (411.
11	115			Herb – All herbaceous (non-woody) plants, regardless
72.5		= Total Cover:		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>72.5</u>	20% 01	total cover:	23.0	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Depth	Matrix	to the dopth	needed to document the indicator or con Redox Features		or maioatoroly	
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc ²		Remark	ks
0 - 6	10YR 4/3	100		Silty clay loam		
6 - 8	10YR 4/4	100		Silty clay loam		
-						
_		· 				
		· 				
-						
-		· _				
-						
_						
	noontration D_Dan	lotion DM_D	educed Matrix, MS=Masked Sand Grains.	² Location: D	PL=Pore Lining, M=Mat	riv
Type: C=Cc Hydric Soil I		ietion, Rivi=R	educed Matrix, MS=Masked Sand Grains.		ators for Problematic	
Histosol			Dark Surface (S7)		2 cm Muck (A10) (MLR	-
	ipedon (A2)		Polyvalue Below Surface (S8) (MLRA 1		Coast Prairie Redox (A	
Black His			Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 147, 148)	,
Hydroge	n Sulfide (A4)		Loamy Gleyed Matrix (F2)	F	Piedmont Floodplain Sc	oils (F19)
	Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)	
	ck (A10) (LRR N)	- (044)	Redox Dark Surface (F6)		ery Shallow Dark Surf	
	l Below Dark Surface irk Surface (A12)	e (A11)	Depleted Dark Surface (F7)Redox Depressions (F8)	_ (Other (Explain in Rema	rks)
	lucky Mineral (S1) (L	RR N.	Iron-Manganese Masses (F12) (LRR N	_		
	147, 148)	,	MLRA 136)	,		
	leyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)	³ Inc	dicators of hydrophytic	vegetation and
Sandy R	edox (S5)		Piedmont Floodplain Soils (F19) (MLRA	A 148) we	etland hydrology must I	be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 127,	147) ur	less disturbed or probl	ematic.
Restrictive L	ayer (if observed):					
	mpacted clay		_			v
Depth (inc	thes): 8.0		<u> </u>	Hydric Soi	I Present? Yes	NoX
Remarks:						





Project/Site: Buckeye Power-Nottingham	City/County: Harrison County		Sampling Date: 10/05/2023		
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland BN-16		
Investigator(s): MJA	Section, Township, Range: S2				
Landform (hillslope, terrace, etc.): Hillside			Slope (%). 1-5		
Subregion (LBB or MLRA). LRR N, MLRA 222 Lat. 40.2316		068525	Datum: NAD 83		
Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: 40.23162 Soil Map Unit Name: GuE2: Guernsey silty clay loam, 25 to 40 p	ercent slopes, eroded	NIVII alaasifiaa	Datum		
Are climatic / hydrologic conditions on the site typical for this time					
Are Vegetation, Soil, or Hydrology signifi					
Are Vegetation, Soil, or Hydrology natura	Ily problematic? (If needed,	explain any answers	s in Remarks.)		
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point location	ons, transects,	important features, etc.		
Hydrophytic Vegetation Present? Yes X No					
Hydric Soil Present? Yes X No_	is the Sampled Area	Yes X	Ma		
Wetland Hydrology Present? Yes X No	Within a Wolland	res			
Remarks:					
Palustrine emergent wetland on plateau in maintained powerline share same hillside seep hydrology.	easement. Hillside seep influences	. Wetland composed	d of multiple polygons that		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicate	ors (minimum of two required)		
Primary Indicators (minimum of one is required; check all that a	pply)	Surface Soil C			
	atic Plants (B14)		etated Concave Surface (B8)		
	Sulfide Odor (C1)	Drainage Patte			
Saturation (A3)X Oxidized	Rhizospheres on Living Roots (C3)	Moss Trim Lin	es (B16)		
	of Reduced Iron (C4)	Dry-Season W	/ater Table (C2)		
Sediment Deposits (B2) Recent Ir	on Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)			
	k Surface (C7)	Saturation Visible on Aerial Imagery (C9)			
	xplain in Remarks)		essed Plants (D1)		
Iron Deposits (B5)		X Geomorphic P			
Inundation Visible on Aerial Imagery (B7)		Shallow Aquita			
Water-Stained Leaves (B9)		Microtopograp X FAC-Neutral T			
Aquatic Fauna (B13) Field Observations:		A FAC-Neutral I	est (D5)		
V	aches):				
V.					
_	*	Hydrology Present	? Yes ^X No		
Saturation Present? Yes NoX Depth (ii (includes capillary fringe)	wetiand r	Tydrology Present	? res No		
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if ava	ailable:			
Remarks:					
Remarks.					

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

50% of total cover: ___

Sapling/Shrub Stratum (Plot size: 15)

Tree Stratum (Plot size: 30

Herb Stratum (Plot size: 5

3. Eupatorium perfoliatum

Woody Vine Stratum (Plot size: _30

1. Typha angustifolia

4. Onoclea sensibilis

Carex vulpinoidea

6. Dipsacus fullonum

7. Solidago gigantea

2. Carex lurida

Absolute Dominant Indicator

% Cover Species? Status

= Total Cover

20% of total cover:__

= Total Cover

Yes

No

No

No

No

No

170 = Total Cover

20% of total cover: 34.0

= Total Cover

20% of total cover:

OBL

OBL

FACW

FACW

OBL

FACU

FACW

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

15

10

20

15

15

Sampling Point: Wetland BN-16 **Dominance Test worksheet:** Number of Dominant Species 2 __ (A) That Are OBL, FACW, or FAC: **Total Number of Dominant** 2 _ (B) Species Across All Strata: Percent of Dominant Species 1.0 That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 115 _ x 1 = _ 115.0 OBL species 40 x 2 = ___ 80.0 **FACW** species 0 ___ x 3 = __ 0.0 FAC species 15 ___ x 4 = __ 60.0 FACU species 0 0.0 UPL species x 5 = _ 170 255.0 (A) Column Totals: Prevalence Index = B/A = 1.5**Hydrophytic Vegetation Indicators:** Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.01 No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Definitions of Four Vegetation Strata:** Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Yes X No _____ Present?

Remarks:	(Include	photo	numbers	here	or	on	а	se	parate	shee	t.)
----------	----------	-------	---------	------	----	----	---	----	--------	------	-----

50% of total cover: 85.0

50% of total cover:

Profile Desc	ription: (Describe t	to the dept	h needed to docun	nent the i	indicator o	r confirm	the absence	e of indicators.)
Depth	Matrix		Redox	<u> Feature</u>	s	. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc²	<u>Texture</u>	Remarks
0 - 6	10YR 4/2	90	7.5YR 4/6	10	Concen	M,PL	Clay loam	
6 - 18	10YR 5/3	90	7.5YR 4/6	10	Concen	PL	Clay	
-								
								·
-								
-								
-								
¹Type: C=Co	ncentration, D=Depl	etion. RM=	Reduced Matrix, MS	=Masked	d Sand Gra	ins.	² Location: P	PL=Pore Lining, M=Matrix.
Hydric Soil I		0.0011, 1.001	rtoudood matrix, me	- Maonoc	a Garia Gra			ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Be		ce (S8) (M	LRA 147.		Coast Prairie Redox (A16)
Black His			Thin Dark Su		. , .			(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, ,	F	Piedmont Floodplain Soils (F19)
	Layers (A5)		X Depleted Mat		(- –)		- '	(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S		- 6)		V	/ery Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dar	,	,			Other (Explain in Remarks)
	rk Surface (A12)		Redox Depre					
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Mass	es (F12) (L	RR N,		
MLRA	147, 148)		MLRA 136					
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 136	5, 122)	³ Inc	dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo				8) we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	1aterial (F	21) (MLR	127, 147	7) un	less disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
	hes):						Hydric Soil	I Present? Yes X No
Remarks:	,						1 ,	
remarks.								









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Project/Site: Buckeye Power-I	Nottingham	City/C	ounty: Harrison County		Sampling Date: 10/05/23	
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Wetland BN-17	
Investigator(s): JFW		on Township Range. S2		Camping Form		
Landform (hillslope, terrace, et					Slone (%). 5	
Subregion (LRR or MLRA): LF	RR N. MLRA 222	40.23099	-81.0	06760	Clope (70)	
Subregion (LRR or MLRA):	Luernsey silty clay k	_ Lat:	Long:		Datum:	
Soil Map Unit Name: GuD2: G						
Are climatic / hydrologic condit						
Are Vegetation, Soil	, or Hydrology	/ significantly distur	bed? Are "Normal	Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, or Hydrology	/ naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)	
SUMMARY OF FINDIN	GS – Attach si	te map showing sam	pling point location	ons, transects	, important features, etc.	
Lludraphytic Variation Dres	ont? Voc	X No				
Hydrophytic Vegetation Pres Hydric Soil Present?	Yes	X No	Is the Sampled Area	X		
Wetland Hydrology Present?		V	within a Wetland?	Yes X	No	
Remarks:						
Palustrine emergent wetland	associated with a si	meant in maintained power	ine easement.			
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary Indica	tors (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 (Sparsely Ve	getated Concave Surface (B8)	
High Water Table (A2)		Hydrogen Sulfide Odd		Drainage Pa		
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li		
Water Marks (B1)		Presence of Reduced			Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur		
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (C Other (Explain in Ren			sible on Aerial Imagery (C9) tressed Plants (D1)	
Iron Deposits (B5)		Other (Explain in Ken	naiks)	X Geomorphic		
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqui		
Water-Stained Leaves (F				Microtopographic Relief (D4)		
Aquatic Fauna (B13)	,			X FAC-Neutral		
Field Observations:					<u> </u>	
Surface Water Present?	Yes No _	X Depth (inches):				
Water Table Present?		X Depth (inches):				
Saturation Present?		X Depth (inches):		lydrology Preser	it? Yes X No	
(includes capillary fringe)	aam aauga manita	ring well pariel photon pro	vieve inenestions) if ave	ilahla		
Describe Recorded Data (str	eam gauge, monitor	iring well, aerial priolos, pre	vious inspections), ii ava	illable.		
Remarks:						

20	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: 30)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)			
2							
3				Total Number of Dominant Species Across All Strata: 4 (B)			
4				Descent of Deminent Species			
5	·			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
50% of total cover:		= Total Cover:		OBL species 40 x 1 = 40.0			
Sapling/Shrub Stratum (Plot size: 15)	20 /6 01	total cover.		FACW species5			
				FAC species0 x 3 =0.0			
1				FACU species0 x 4 =0.0			
2				UPL species 0 x 5 = 0.0			
3				Column Totals: 45 (A) 50.0 (B)			
4. 5.							
6				Prevalence Index = B/A = 1.10			
7				Hydrophytic Vegetation Indicators:			
8				Yes 1 - Rapid Test for Hydrophytic Vegetation			
9				Yes 2 - Dominance Test is >50%			
		= Total Cove	 er	Yes 3 - Prevalence Index is ≤3.0¹			
50% of total cover:				No 4 - Morphological Adaptations ¹ (Provide supporting			
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)			
1. Carex Iurida	40	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)			
2. Scirpus atrovirens	20	Yes	OBL	1			
3. Carex vulpinoidea	10	No	OBL	 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 			
4. Juncus effusus	15	Yes	FACW	Definitions of Four Vegetation Strata:			
_{5.} Epilobium ciliatum	10	No	FAC	Definitions of Four Vegetation Strata.			
6. Typha angustifolia	15	Yes	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or			
7. Symphyotrichum novae-angliae	5	No	FACW	more in diameter at breast height (DBH), regardless of height.			
8. Onoclea sensibilis	5	No	FACW				
9. Solidago gigantea	5	No	FACW	Sapling/Shrub – Woody plants, excluding vines, less 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			
	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 – All woody vines greater than 3.28 ft in			
Woody Vine Stratum (Plot size: 30)				height.			
1							
2							
3							
4				Hydrophytic			
5	· 			Vegetation Present? Yes X No			
		= Total Cove		Present? Yes X No			
50% of total cover:		total cover:					
Remarks: (Include photo numbers here or on a separate s	sheet.)						

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the	indicator o	r confirn	n the absence	e of indicators.)
Depth	Matrix			k Feature	s .			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 10	10YR 4/2	90	5YR 4/6	10	Concen	M	Clay loam	
10 - 18	Gley 1 4/10Y	60	Gley 1 2.5/N	30	Reduce	M	Clay	
			7.5YR 5/6	10	Concen	M		
-								
-								
¹Type: C=Cc	oncentration, D=Depl	etion RM-	Reduced Matrix MS	S-Masker	d Sand Gra	ins	² Location: P	PL=Pore Lining, M=Matrix.
Hydric Soil I		Ction, raivi=	reduced Matrix, Me	J-Maske	a Garia Gra			ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(\$7)				2 cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Be		ace (S8) (M I	LRA 147.		Coast Prairie Redox (A16)
Black His			Thin Dark Su		. , .			(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			17, 140)	Б	Piedmont Floodplain Soils (F19)
	Layers (A5)		X Depleted Mat		(1 2)		'	(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S		E6)		V	/ery Shallow Dark Surface (TF12)
	Below Dark Surface	(//11)	Depleted Dar	,	,			Other (Explain in Remarks)
		; (A11)	Redox Depre					other (Explain in Kemarks)
	rk Surface (A12)	DD N				DD N		
	ucky Mineral (S1) (L	KK N,	Iron-Mangan		ses (F12) (L	KK N,		
	147, 148)		MLRA 130	•	/MI D A 400	400\	31	dianta no af hardranka tia ara matatia a anad
	leyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	faterial (F	-21) (MLRA	127, 14	7) un	nless disturbed or problematic.
	.ayer (if observed):							
Туре:			<u></u>					V
Depth (inc	:hes):						Hydric Soil	I Present? Yes X No
Remarks:							•	











Soil

Project/Site: Buckeye Power-	Nottingham	Citv/C	county: Harrison County		Sampling Date: 10/05/23		
· · · · · · · · · · · · · · · · · · ·					Sampling Point: Upland BN-16,17		
Investigator(s): MJA		Campling Form					
Landform (hillslone terrace e	tc.). Hillside	Local reli	ief (concave, convex, nor	Convex	Slope (%): 15-20		
Subregion (LRR or MLRA): LI	RR N. MI RA 222	40.23170	-81.6	06861	Clope (70) NAD 83		
Subregion (LRR or MLRA):	2uerneev silty clay k	_ Lat:	Long:		Datum: 1 1 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		
Soil Map Unit Name: GuE2: 0							
Are climatic / hydrologic condi							
Are Vegetation, Soil	, or Hydrology	/ significantly distur	bed? Are "Normal	Circumstances" p	present? Yes X No		
Are Vegetation, Soil	, or Hydrology	/ naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDIN	IGS – Attach si	te map showing san	npling point location	ns, transects	, important features, etc.		
Hudrophytic Vagotation Broa	ont? Voc	NoX					
Hydrophytic Vegetation Pres Hydric Soil Present?	Yes	X No	Is the Sampled Area	.,	X		
Wetland Hydrology Present?	Yes	NoX	within a Wetland?	Yes	NoX		
Remarks:							
Upland data point in maintair	ned powerline easer	ment.					
	•						
HYDROLOGY							
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)		True Aquatic Plants (B14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa			
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li			
Water Marks (B1)		Presence of Reduced			Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)				
Drift Deposits (B3)		Thin Muck Surface (C	27)	Saturation Vi	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Ae				Shallow Aqu	itard (D3)		
Water-Stained Leaves (B9)				aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:		Υ					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):			y You No X		
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	lydrology Preser	t? Yes NoX		
Describe Recorded Data (str	ream gauge, monito	oring well, aerial photos, pre	vious inspections), if ava	ilable:			
Remarks:							

/EGETATION (Four Strata) – Use scientific		Sampling Point: Upland BN-16,17		
00	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3		. <u></u>		Species Across All Strata: 2 (B)
4				Descent of Deminent Charles
5				Percent of Dominant Species That Are OBL, FACW, or FAC:(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 0 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 170 x 4 = 680.0
3				UPL species10 x 5 =50.0
4				Column Totals:180 (A)730.0 (B)
5				
6				Prevalence Index = B/A = 4.10
7				Hydrophytic Vegetation Indicators:
				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9		T-1-1-0		No 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:		= Total Cover		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	2070 01	total oover.		data in Remarks or on a separate sheet)
1 Dactylis glomerata	30	No	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Schedonorus arundinaceus	60	Yes	FACU	
3. Poa pratensis		Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
Daucus carota	_ 		UPL	be present, unless disturbed or problematic.
5. Solidago canadensis	25	No No	FACU	Definitions of Four Vegetation Strata:
<u> </u>		No	1700	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		· ——		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		<u> </u>		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 90	20% of	total cover:	36	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1		. <u></u>		
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	sheet.)			

Sampling Point: Upland BN-16,17

epth inches)	Matrix Color (moist)	%	Redox Color (moist)	<u>Features</u> %	SType ¹	Loc ²	Texture		Remarks	
0 - 16	10YR 4/2	98	10YR 4/6	2	Concen	M	Silty clay loam		Nemarks	
								-		
-										
<u> </u>										
<u>- </u>										
-										
		letion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location: Pl	_=Pore Lin	ing, M=Matrix.	3
dric Soil Inc									roblematic Hy	
Histosol (A			Dark Surface		(00) (11)				A10) (MLRA 1	47)
Histic Epip			Polyvalue Bel				148) C		e Redox (A16)	
Black Histi	C (A3) Sulfide (A4)		Thin Dark Sui			17, 148)	D	(MLRA 14	oodplain Soils	(E10)
	ayers (A5)		X Depleted Mat	,	r2)			(MLRA 1		(୮19)
	(A10) (LRR N)		Redox Dark S		-6)		V		v Dark Surface	(TF12)
	Below Dark Surface	e (A11)	Depleted Dar	•	,				in in Remarks)	
	Surface (A12)	,	Redox Depre					` '	,	
	cky Mineral (S1) (L	.RR N,	Iron-Mangane			RR N,				
MLRA 1	47, 148)		MLRA 136	6)						
	yed Matrix (S4)		Umbric Surfa						ydrophytic veg	
Sandy Red			Piedmont Flo						ology must be p	
Stripped M			Red Parent M	laterial (F	21) (MLRA	127, 147	7) unl	ess disturb	ed or problem	atic.
strictive La	yer (if observed):									
Туре:										
Depth (inch	es):						Hydric Soil	Present?	Yes X	No
marks:							•			





Ν

Project/Site: Buckeye Power-Nottingham	rison County	Sampling Date: 10/05/2023				
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland BN-18				
	ip, Range: S20 T10N R5W					
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave	e, convex, none): Concave	Slope (%): 1-3			
Subregion (LRR or MLRA). LRR N, MLRA 222	Lat: 40.229313	Long81.067027	Datum: NAD 83			
Soil Map Unit Name: Me: Melvin silt loam, freque	ently ponded, 0 to 3 percent slopes	NWI classif	cation: R4SBC			
Are climatic / hydrologic conditions on the site type	oical for this time of year? Yes X	No (If no, explain in	Remarks.)			
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstances"	present? Yes X No			
Are Vegetation, Soil, or Hydrolog						
SUMMARY OF FINDINGS – Attach s	ite map showing sampling po	oint locations, transect	s, important features, etc.			
Hydrophytic Vegetation Present? Yes _	X No lo the So					
Hydric Soil Present? Yes _	X No	mpled Area	No			
Wetland Hydrology Present? Yes _		Vetland? Yes^	NO			
Remarks:						
polygons.						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)			
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soi	l Cracks (B6)			
Surface Water (A1)	True Aquatic Plants (B14)		egetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)		atterns (B10)			
Saturation (A3)	X Oxidized Rhizospheres on Living					
Water Marks (B1)	Presence of Reduced Iron (C4)		Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled S					
Drift Deposits (B3) Algal Mat or Crust (B4)	Thin Muck Surface (C7) Other (Explain in Remarks)		/isible on Aerial Imagery (C9) Stressed Plants (D1)			
Algar Mat of Crust (B4)	Other (Explain in Kemarks)	X Geomorphic				
Inundation Visible on Aerial Imagery (B7)		Shallow Aq	, ,			
Water-Stained Leaves (B9)		Microtopographic Relief (
Aquatic Fauna (B13)		X FAC-Neutra				
Field Observations:						
Surface Water Present? Yes No	X Depth (inches):					
	X Depth (inches):					
Saturation Present? Yes No	X Depth (inches):	Wetland Hydrology Prese	nt? Yes X No			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitor)	oring well agrial photos previous inspe	ctions) if available:				
Besonse resorded Bata (etream gauge, monte	orning well, derial priotos, previous inspe	otions), ii available.				
Remarks:						

Sampling Point: Wetland	BN-18
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20	Absolute	Dominant I	ndicator	Dominance Test worksheet:
		Species?	Status	Number of Dominant Species That Are ORL FACW or FAC: 3 (A)
1			-	That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (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:
50% of total cover:		= Total Cove		OBL species 40 x 1 = 40.0
Sapling/Shrub Stratum (Plot size: 15	20% 01	total cover		FACW species 195 x 2 = 390.0
				FAC species 0 x 3 = 0.0
1				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 235 (A) 430.0 (B)
4				
5				Prevalence Index = B/A = 1.8
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:		= Total Cove total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	2070 01	total cover		data in Remarks or on a separate sheet)
1. Solidago gigantea	45	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Phalaris arundinacea	25	No	FACW	
3. Mimulus ringens	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Scirpus atrovirens	20	No	OBL	Definitions of Four Vegetation Strata:
5. Agrimonia parviflora	55	Yes	FACW	Definitions of Four Vegetation Strata:
6. Onoclea sensibilis	50	Yes	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Carex vulpinoidea	10	No	OBL	more in diameter at breast height (DBH), regardless of height.
8. Juncus effusus	20	No	FACW	
9.				Sapling/Shrub – Woody plants, excluding vines, less 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
	235	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 117.5		total cover:		
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				The same of the sa
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove	r	Present? Yes X No
50% of total cover:	20% of	total cover:_		
Remarks: (Include photo numbers here or on a separate sh	neet.)			

epth inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	sType ¹	Loc ²	Texture		Remarks	
0 - 16	10YR 4/2	85	2.5YR 3/6	15	Concen	PL	Silty loam		Nemans	
							<u> </u>			
-										
<u> </u>										
<u> </u>										
-										
								-		
		etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gra	ins.	² Location: PL	=Pore Lin	ing, M=Matrix.	3
dric Soil Inc									roblematic Hy	
Histosol (A	•		Dark Surface		(00) (11)				A10) (MLRA 1	
Histic Epip			Polyvalue Be						e Redox (A16)	
Black Histi	C (A3) Sulfide (A4)		Thin Dark Su Loamy Gleye			17, 148)		(MLRA 14	oodplain Soils	(E10)
	ayers (A5)		X Depleted Mat		(Г2)			(MLRA 1		(୮19)
	(A10) (LRR N)		Redox Dark S		-6)				v Dark Surface	(TF12)
	Below Dark Surface	e (A11)	Depleted Dar	,	,				ain in Remarks	
	Surface (A12)	,	Redox Depre					` '		,
	cky Mineral (S1) (L	.RR N,	Iron-Mangane			RR N,				
MLRA 1	47, 148)		MLRA 130	6)						
	yed Matrix (S4)		Umbric Surfa						ydrophytic veg	
_ Sandy Red			Piedmont Flo						ology must be p	
_ Stripped M			Red Parent M	laterial (F	21) (MLR<i>A</i>	127, 14	7) unle	ess disturb	ed or problem	atic.
	yer (if observed):									
Туре:									V	
Depth (inch	es):						Hydric Soil	Present?	Yes X	No
marks:										





N E





S W



Soil

Project/Site: Buckeye Power-No	ttingham	Citv/C	county: Harrison County		Sampling Date: 10/05/2023
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-18
Investigator(s): MJA		Section	on Township Range. S2		Camping Font.
Landform (hillslope, terrace, etc.)					Slone (%): 0
Landioini (illisiope, terrace, etc.)	N. MI RA 222	40.229095	er (concave, convex, nor	06702	Slope (76)
Subregion (LRR or MLRA): LRR	silt loam frequent	_at:	Long:		Datum:
Soil Map Unit Name: Me: Melvin					
Are climatic / hydrologic condition					
Are Vegetation, Soil	, or Hydrology _	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)
SUMMARY OF FINDING	S – Attach site	map showing sam	npling point location	ons, transects	s, important features, etc.
		X			
Hydrophytic Vegetation Present Hydric Soil Present?	Yes	No X No X	Is the Sampled Area		V
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX
Remarks:	163	110			
Upland data point in maintained	powerline easeme	ent.			
	,				
HYDROLOGY					
Wetland Hydrology Indicators	 5:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of	one is required; ch	neck all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	_	True Aquatic Plants (B14)		getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Pa	= : : :
Saturation (A3)	_		es on Living Roots (C3)	Moss Trim L	ines (B16)
Water Marks (B1)	_	Presence of Reduced	l Iron (C4)	Dry-Season	Water Table (C2)
Sediment Deposits (B2)	_	Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)
Drift Deposits (B3)	_	Thin Muck Surface (C	27)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Aeria	Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (B9)	1			Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:		.,			
		X Depth (inches):			
		X Depth (inches):			
	Yes No	X Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX
(includes capillary fringe) Describe Recorded Data (streat	m gauge, monitorir	ng well, aerial photos, pre	vious inspections), if ava	ilable:	
Bosoniso Nocordou Bala (siroa	n gaago, monton	ig won, doridi priotoo, pro	vious inspositorio), il ava	masio.	
Remarks:					

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

Sampling Point: Upland BN-18

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		Number of Dominant Species That Are OBL_FACW_or_FAC: 0 (A)
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
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 % Cover of: Multiply by:
50% of total cover:		= Total Cov		OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15)	20% 01	lotal cover.		FACW species 0 x 2 = 0.0
				FAC species 10 x 3 = 30.0
1				FACU species 110 x 4 = 440.0
2				UPL species 10 x 5 = 50.0
3				Column Totals: 130 (A) 520.0 (B)
4				
5				Prevalence Index = B/A = 4.0
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.01
50% of total cover:		= Total Cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
	20 /6 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:) 1 Solidago canadensis	80	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Daucus carota	10	No	UPL	
3. Vernonia gigantea	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must
A Poa pratensis	30	Yes	FACU	be present, unless disturbed or problematic.
¬				Definitions of Four Vegetation Strata:
5				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
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11.				,
	130	= Total Cov		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 65.0		total cover:		
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				neight.
2.				
3				
4				
5				Hydrophytic Vegetation
		= Total Cov	er	Present? Yes No _X
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s				
· ·	,			

Silty clay loam O - 16	Depth _	Matrix	%	Redox Features	Loc ² Tex	.	Damada	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, E2 Histosol Indicators:	nches)	Color (moist)		Color (moist) % Type ¹			Remarks	
Histosol (A1)		1011(4/3						
Histosol (A1)								
dric Soil Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Sandy Gleyed Matrix (S4) Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Hydric Soil Present? Yes No	-							
dric Soil Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Sandy Gleyed Matrix (S4) Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Hydric Soil Present? Yes No	_							
Histosol (A1)								
Histosol (A1)								
Histosol (A1)								
Histosol (A1)	-							
Histosol (A1)								
Histosol (A1)								
Histosol (A1)								
Histosol (A1)								
Histosol (A1)	pe: C=Con	centration, D=Deple	tion, RM=Re	duced Matrix, MS=Masked Sand Grain	s. ² Loca	tion: PL=Pore Lir	ning, M=Matrix.	
Histic Epipedon (A2)						Indicators for F	Problematic Hy	dric Soils ³ :
Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Pepleted Matrix (F3) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sitripped Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches): Depth (inches): Depth (inches): Depleted Below Surface (S8) (MLRA 147, 148) (MLRA 147, 148) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 147, 148) Other (Explain in Remarks) Piedmont Floodplain Soils (F12) (LRR N, MLRA 136, 122) Stripped Matrix (S6) Depleted Below Dark Surface (F13) (MLRA 136, 122) Stripped Matrix (S6) Depleted Dark Surface (F13) (MLRA 148) Wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No	Histosol (A	(1)		Dark Surface (S7)		2 cm Muck	(A10) (MLRA 1	47)
Hydrogen Sulfide (A4)					RA 147, 148)			,
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Depleted Matrix (F3) MLRA 127, 147) Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Mera 147, 148 MLRA 136, Umbric Surface (F12) (LRR N, MLRA 136, 122) Stripped Matrix (S6) M								
Stratified Layers (A5)						Piedmont F	loodplain Soils	(F19)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches): Depth (inches): Depth (in			_	Depleted Matrix (F3)		(MLRA 1	36, 147)	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck	(A10) (LRR N)	_	Redox Dark Surface (F6)		Very Shallo	w Dark Surface	(TF12)
	_ Depleted E	Below Dark Surface	(A11)	Depleted Dark Surface (F7)		Other (Expl	ain in Remarks))
MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	_ Thick Dark	Surface (A12)	-	Redox Depressions (F8)				
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5)	_ Sandy Mu	cky Mineral (S1) (LF	RR N,	Iron-Manganese Masses (F12) (LR	R N,			
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:	MLRA 1	47, 148)		MLRA 136)				
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No			_	Umbric Surface (F13) (MLRA 136,	122)	³ Indicators of I	nydrophytic veg	etation and
Depth (inches): Hydric Soil Present? Yes No	_ Sandy Red	dox (S5)	_	Piedmont Floodplain Soils (F19) (M	LRA 148)	wetland hydr	ology must be p	oresent,
Type: Depth (inches):			_	Red Parent Material (F21) (MLRA 1	127, 147)	unless distur	bed or problem	atic.
Depth (inches): No	estrictive La	yer (if observed):						
	Туре:			_				
	Depth (inch	es):		_	Hyd	ic Soil Present?	Yes	No X
		·						<u> </u>





Project/Site: Buckeye Power-Nottingham	Citv/County:	Harrison County	Sampling Date: 10/05/2023			
Applicant/Owner: FirstEnergy		State: OH Sampling Point: Wetland B				
Investigator(s): MJA	Section To					
Landform (hillslope, terrace, etc.): Toeslope	Local relief (cor	ocave convex none). Concave	Slone (%). 1-3			
Subragion (LBB or MLBA): LRR N, MLRA 222	40.22136	-81.063537	Dotum: NAD 83			
Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: Soil Map Unit Name: FcA: Fitchville silt loam, 0 to 3 pe	rcent slopes	LOTIG	Datum			
Soil Map Unit Name:	X	INVVI class	inication:			
Are climatic / hydrologic conditions on the site typical fo						
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	wers in Remarks.)			
SUMMARY OF FINDINGS – Attach site m	ap showing sampling	g point locations, transec	ts, important features, etc.			
Hydrophytic Vegetation Present? Yes X	No					
Hydric Soil Present? Yes X	N.I	e Sampled Area n a Wetland? Yes	Χ			
Wetland Hydrology Present? Yes X	No	n a Wetland? Yes	X No			
Remarks:						
Palustrine emergent wetland in maintained powerline	easement. Hillside seep influ	iences.				
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Se	oil Cracks (B6)			
X Surface Water (A1)	True Aquatic Plants (B14)	Sparsely \	/egetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage I	Patterns (B10)			
X Saturation (A3)	Oxidized Rhizospheres on I	iving Roots (C3) Moss Trim	Lines (B16)			
Water Marks (B1)	Presence of Reduced Iron (C4) Dry-Seaso	on Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Ti	led Soils (C6) Crayfish B	urrows (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 Geomorph	nic Position (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow A	quitard (D3)			
Water-Stained Leaves (B9)			graphic Relief (D4)			
Aquatic Fauna (B13)		X FAC-Neut	ral Test (D5)			
Field Observations:	4					
	Depth (inches): 1					
	Depth (inches):		V			
	Depth (inches): 0	Wetland Hydrology Pres	ent? Yes X No			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring w	vell, aerial photos, previous i	nspections), if available:				
, , , ,						
Remarks:						

Sampling Point: V	Vetland BN-19
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20	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 1)		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Barrant of Barrier of Oracina
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
500 % of total account		= Total Cov		OBL species20 x 1 =20.0
50% of total cover:	20% of	total cover:		FACW species140 x 2 =280.0
Sapling/Shrub Stratum (Plot size: 15)				FAC species 0 x 3 = 0.0
1				FACU species
2				1 ACO species
3				OFL species X 3 =
4				Column Totals:160 (A)300.0 (B)
5				Prevalence Index = B/A = 1.9
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 1. Epilobium coloratum	50	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Mentha spicata	55	Yes	FACW	
3. Symphyotrichum novae-angliae	20	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4 Eupatorium perfoliatum	15	No	FACW	be present, unless disturbed or problematic.
5. Scirpus atrovirens	20	No	OBL	Definitions of Four Vegetation Strata:
6				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
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tan.
11	160			Herb – All herbaceous (non-woody) plants, regardless
FOW of total across 80.0		= Total Cov total cover:		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 80.0 Woody Vine Stratum (Plot size: 30)			32.0	Woody vine – All woody vines greater than 3.28 ft in height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cov		Present? Yes X No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

	Matrix	<u></u> %		Features		Loc ²	Texture		Domorto	
<u>nches)</u> 0 - 5	Color (moist) 10YR 3/2	97	Color (moist) 7.5YR 4/6	3	Type ¹ Concen	PL	Silt		Remarks	
5 - 16	10YR 2/1		7.011(1/0						Cool norant ma	uto riol
3 - 10	101R 2/1	100					Silty clay loam		Coal parent ma	iteriai
-										
-										
_										
								-		
-										
-										
								-		
				 .			2			
		etion, RM=I	Reduced Matrix, MS	=Masked	Sand Gra	ns.	Location: P	L=Pore Lini	ing, M=Matrix. roblematic Hy	dria Caila ³ .
dric Soil Ir			D = 11 0 - 16	(07)						
_ Histosol (Dark Surface Polyvalue Bel		- (CO) /MI	D A 447			A10) (MLRA 1 4	17)
_ Histic Epi _ Black His	pedon (A2)		Polyvalue Bei				146) C	MLRA 14)	e Redox (A16)	
	Sulfide (A4)		Loamy Gleye			17, 140)	Р		oodplain Soils (F19)
	Layers (A5)		Depleted Mat		_,		— .	(MLRA 13		0)
_	ck (A10) (LRR N)		X Redox Dark S	. ,	6)		V		v Dark Surface	(TF12)
	Below Dark Surface	e (A11)	Depleted Dar						in in Remarks)	
	k Surface (A12)		Redox Depre							
	ucky Mineral (S1) (L	.RR N,	Iron-Mangane		es (F12) (L	RR N,				
	147, 148)		MLRA 136	•			3			
	eyed Matrix (S4)		Umbric Surfac						ydrophytic vege	
_ Sandy Re			Piedmont Flo						logy must be p	
	Matrix (S6) ayer (if observed):		Red Parent M	iateriai (F	21) (WILKA	127, 147	r) un	iess disturb	ed or problema	IIIC.
Type:	ayer (ii observeu).									
Type:							11	D	v X	NI-
							Hydric Soil	Present?	Yes X	No
Depth (incl	nes):									
Depth (incl	nes):									
Depth (incl	nes):									
Depth (incl	nes):									
Depth (incl	nes):									
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Depth (incl	nes):									









E W



Project/Site: Buckeye Power-I	Nottingham		Citv/County: H	arrison County		Sampling Date: 10/05/2023		
Applicant/Owner: FirstEnergy						Sampling Point: Wetland BN-20		
Investigator(s): MJA			Section Towns	shin Range. S1		camping rount.		
Landform (hillslope, terrace, et	tc.). Floodplain		Occilon, rowns	ive convey no	ne). Flat	Slone (%). 1-2		
Subregion (LRR or MLRA): LF	RR N. MLRA 222	40.221176	Local Teller (corlea	.81.	063094	Siope (70)		
Soil Map Unit Name: GuD2: G	Luernsey silty clay k	Lat:	cent slones erode	Long: _ 		Datum:		
Are climatic / hydrologic condit								
Are Vegetation, Soil	, or Hydrology	significar	ntly disturbed?	Are "Norma	l Circumstances"	present? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally	problematic?	(If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showi	ng sampling p	oint location	ons, transects	s, important features, etc.		
Hudrophytic Vagetation Bros	ont? Voc	X No						
Hydrophytic Vegetation Pres Hydric Soil Present?	Yes	X No	Is the S	ampled Area	X			
Wetland Hydrology Present?		V	— within a	a Wetland?	etland? Yes X No No			
Remarks:			<u> </u>					
Palustrine emergent wetland								
HYDROLOGY								
Wetland Hydrology Indicate	ors:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum	of one is required;	check all that app	ly)		Surface Soil			
Surface Water (A1)		True Aquati				egetated Concave Surface (B8)		
High Water Table (A2)			ulfide Odor (C1)		_	atterns (B10)		
Saturation (A3)		· · · · · · · · · · · · · · · · · · ·	nizospheres on Livi	• , ,	Moss Trim L			
Water Marks (B1)			Reduced Iron (C4			Water Table (C2)		
Sediment Deposits (B2)			Reduction in Tilled	Soils (C6)	Crayfish Bu			
Drift Deposits (B3)		Thin Muck S Other (Expla				/isible on Aerial Imagery (C9) Stressed Plants (D1)		
Algal Mat or Crust (B4) Iron Deposits (B5)		Other (Expire	alli ili Kelliaiks)		X Geomorphic			
Inundation Visible on Ae	rial Imagery (B7)				Shallow Aqu	` '		
Water-Stained Leaves (F						aphic Relief (D4)		
Aquatic Fauna (B13)	,				X FAC-Neutra			
Field Observations:								
Surface Water Present?	Yes No _	X Depth (inch	nes):					
Water Table Present?		X Depth (inch						
Saturation Present?	Yes No _	X Depth (inch	nes):	Wetland H	Hydrology Prese	nt? Yes X No		
(includes capillary fringe) Describe Recorded Data (str	room gougo monito	ring wall parial ph	otos provious ins	nactional if ave	vilabla:			
Describe Recorded Data (Sti	eam gauge, monitor	ning well, aerial pi	iotos, previous iris	pections), ii ava	mable.			
Remarks:								

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

Sampling Point: Wetland BN-20

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata:1 (B)
4				Barrant of Barrian of Oracina
5				Percent of Dominant Species That Are OBL, FACW, or FAC:1.0 (A/B)
6				(VB)
7				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover:				OBL species10 x 1 =10.0
Sapling/Shrub Stratum (Plot size: 15				FACW species110 x 2 =220.0
				FAC species0 x 3 =0.0
1				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 120 (A) 230.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 1.9
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0¹
	:	= Total Cov	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Phalaris arundinacea	90	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Eupatorium perfoliatum	5	No	FACW	
3. Scirpus atrovirens	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Symphyotrichum novae-angliae	10	No	FACW	be present, unless disturbed or problematic.
5. Agrimonia parviflora	5	No	FACW	Definitions of Four Vegetation Strata:
<u> </u>				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	120	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60.0	20% of	total cover:	24.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				g.m
2				
3				
4			-	Hydrophytic
5				Vegetation Present? Yes X No
FOOV of total account		= Total Cov		11030IK. 103 NO
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

	ription: (Describe t	o the depth				r confirm	n the absence	of indicators.)	
Depth	Matrix		Redox	Feature:	S1	1 2	Tandons	Danasala	_
(inches)	Color (moist)	<u>%</u> _	Color (moist)		Type ¹	Loc ²	Texture	Remarks	<u> </u>
0 - 16	10YR 4/2	95	5YR 3/4	5	Concen	PL_	Silty clay loam		
-									
-									
-									
									-
-									
1							2		
	ncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ins.		L=Pore Lining, M=Matrix	
Hydric Soil I								ators for Problematic I	•
Histosol			Dark Surface	. ,				cm Muck (A10) (MLRA	
	ipedon (A2)		Polyvalue Bel		. , .		148) C	Coast Prairie Redox (A16	5)
Black His			Thin Dark Sui			17, 148)	_	(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye	,	F2)		P	riedmont Floodplain Soil	s (F19)
	Layers (A5)		X Depleted Mat		-0)			(MLRA 136, 147)	(TE40)
	ck (A10) (LRR N)	(//11)	Redox Dark S	,	,			ery Shallow Dark Surface	
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Dark Redox Depres					Other (Explain in Remark	(5)
	ucky Mineral (S1) (L	DD N	Iron-Mangane			DD N			
	. 147, 148)	ixix i v ,	MLRA 136		63 (1 12 <i>)</i> (2	ixix i v ,			
	leyed Matrix (S4)		Umbric Surfac	•	MI RΔ 136	122)	³ Ind	icators of hydrophytic ve	enetation and
	edox (S5)		Piedmont Flo					etland hydrology must be	-
	Matrix (S6)		Red Parent M					less disturbed or proble	
	ayer (if observed):		1100 1 0101111	iatoriai (i	21) (III210)	,	1	iooo diotarbod or problem	mano.
Type:	, (
	hoo).		_				Usalvia Cail	Present? Yes X	No
	hes):						Hydric Soil	Present? res	No
Remarks:									





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E S

Site Photos



W

Project/Site: Buckeye Power-Nottingham			City/County: Harrison County		Sampling Date: 10/05/2023
Applicant/Owner: FirstEnergy			State: OH		Sampling Point: Upland BN-19,20
Investigator(s): MJA					Odmpinig i ome
Landform (hillslope, terrace, etc.):					Clana (0/), 5-8
Subregion (LRR or MLRA): LRR I	MIRA 222 .	Local reli 40 221388	er (concave, convex, non -81.0	e): i63481	Slope (%):
Subregion (LRR or MLRA):	La	t: 40.221300	Long:		Datum: N/A
Soil Map Unit Name: FcA: Fitchvil					
Are climatic / hydrologic conditions					
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 answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Lhuduauhudia Manadatian Buasant		No. X			
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes	NoX No	Is the Sampled Area within a Wetland? Yes NoX		V
Wetland Hydrology Present?		No			No^
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators: Seconda					ators (minimum of two required)
					Cracks (B6)
Surface Water (A1) True Aquatic F					
High Water Table (A2) Hydrogen Su Y O i from I Div			or (C1)	Drainage Pa	
			cospheres on Living Roots (C3) Moss Trim Lines (B16) educed Iron (C4) Dry-Season Water Table (C2) eduction in Tilled Soils (C6) Crayfish Burrows (C8) face (C7) Saturation Visible on Aerial Imagery (C9) in Remarks) Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4) Other (Explain					
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?	'es No _X	Depth (inches):			
Water Table Present? Yes NoX Depth (inches					
Saturation Present? Yes No _X Depth (inches		Depth (inches):	Wetland Hydrology Pres		nt? Yes X No
(includes capillary fringe) Describe Recorded Data (stream	n gauge, monitoring	well, aerial photos, pre	vious inspections), if avai	lable:	
	· gaage,ee	,, aca. p, p	rious inspections,, it avail		
Remarks:					

Species? Total Covotal cover: Yes Total Covotal cover: Yes No No No	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:
Total Coversion of the	FACU UPL FACW	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:
Total Coversion of the	FACU UPL FACW	Species Across All Strata: Percent of Dominant Species D.0 (A/B)
Total Coversion of the	FACU UPL FACW	Species Across All Strata: Percent of Dominant Species D.0 (A/B)
Total Coversion of the	FACU UPL FACW	That Are OBL, FACW, or FAC:
Yes Total Cover: Yes Total Cover: Yes No No	FACU PACU FACU UPL FACW	That Are OBL, FACW, or FAC:
Yes Total Cover: Yes Total Cover: Yes No No	FACU PACU FACU UPL FACW	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0.0 FACW species 5 x 2 = 10.0 FAC species 10 x 3 = 30.0 FACU species 95 x 4 = 380.0 UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Yes Total Cover: Yes Total Cover: Yes Yes No No	FACU PACU FACU UPL FACW	Total % Cover of: OBL species 0 x 1 = 0.0 FACW species 5 x 2 = 10.0 FAC species 10 x 3 = 30.0 FACU species 95 x 4 = 380.0 UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Total Cover: Yes Yes No No	FACU PACU FACU UPL FACW	OBL species 0 x 1 = 0.0 FACW species 5 x 2 = 10.0 FAC species 10 x 3 = 30.0 FACU species 95 x 4 = 380.0 UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Total Cover: Yes Yes No No	FACU PACU FACU UPL FACW	FACW species 5 x 2 = 10.0 FAC species 10 x 3 = 30.0 FACU species 95 x 4 = 380.0 UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Total Coverional cover: Yes Yes No No	FACU PACU UPL FACW	FAC species 10 x 3 = 30.0 FACU species 95 x 4 = 380.0 UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cover: Yes Yes No No	er 25.0 FACU UPL FACW	FACU species 95 x 4 = 380.0 UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No	FACU UPL FACW	UPL species 80 x 5 = 400.0 Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No	FACU UPL FACW	Column Totals: 190 (A) 820.0 (B) Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No	FACU UPL FACW	Column Totals:190(A)820.0(B) Prevalence Index = B/A =4.3 Hydrophytic Vegetation Indicators: No
Yes No	FACU UPL FACW	Prevalence Index = B/A = 4.3 Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Covercial cover: Yes Yes No No	FACU UPL FACW	Hydrophytic Vegetation Indicators: No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No	FACU UPL FACW	 No 1 - Rapid Test for Hydrophytic Vegetation No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Yes No No	FACU UPL FACW	 No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Yes No No	FACU UPL FACW	 No 2 - Dominance Test is >50% No 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Yes No No	FACU UPL FACW	No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Yes No No	FACU UPL FACW	No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes Yes No No	FACU UPL FACW	data in Remarks or on a separate sheet) No Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No No	UPL FACW	No Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No No	UPL FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
No No	FACW	be present, unless disturbed or problematic.
No		be present, unless disturbed or problematic.
	FAC	
		Deminions of Four Vegetation Strata.
		I .
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of height.
		noight.
		Sapling/Shrub – Woody plants, excluding vines, less
		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
		my can.
		Herb – All herbaceous (non-woody) plants, regardless
		of size, and woody plants less than 3.28 ft tall.
otal cover:	20.0	Woody vine - All woody vines greater than 3.28 ft in
		height.
		Hydrophytic
		Vegetation
Total Cov	er	Present? Yes No X
otal cover:		
	Total Cover:	Total Cover otal cover: 28.0

Sampling Point: Upland BN-19,20

SOIL

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix			Features				
(inches)	Color (moist)	<u></u> %	Color (moist)	<u>%</u>	Type'	Loc ²	Texture	Remarks
0 - 16	10YR 3/2	95	7.5YR 4/6	5	Concen	M,PL	Silty clay loam	
-								
				-				
-								
-								
				-				
	ncentration, D=Depl	etion, RM=Re	educed Matrix, MS	=Masked	Sand Gra	ins.		L=Pore Lining, M=Matrix.
Hydric Soil I								ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface		/C			cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Bel				148) C	coast Prairie Redox (A16)
Black His			Thin Dark Su	, ,	•	47, 148)	-	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	,	F2)		P	riedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat		·C)			(MLRA 136, 147)
	ck (A10) (LRR N) Below Dark Surface		X Redox Dark S Depleted Dark					ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	rk Surface (A12)	(A11)	Redox Depre					otter (Explain in Remarks)
	ucky Mineral (S1) (L	RR N	Iron-Mangane			RR N		
	. 147, 148)	,	MLRA 136		30 (i i.e.) (e	,		
	leyed Matrix (S4)		Umbric Surfac		MLRA 136	6. 122)	³ Ind	icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	ayer (if observed):			,			1	· ·
Type:								
• • • • • • • • • • • • • • • • • • • •	hes):						Hydric Soil	Present? Yes X No No
Remarks:			_				1.,	
remarks.								





Soil

Project/Site: Buckeye Power-	Nottingham	Citv/C	county: Harrison County		Sampling Date: 10/05/2023		
•					Sampling Point: Wetland BN-21		
Investigator(s): JFW		Section	on Township Range S1		camping rount		
Landform (hillslope, terrace, et	tc.): Toeslope	L ocal reli	ef (concave, convex, nor	ne): Concave	Slope (%): 3		
Subragian (LDD or MLDA).	RR N, MLRA 222	40.217542	-81.0	061001	Datum, NAD 83		
Subregion (LRR or MLRA): LF Soil Map Unit Name: GuE2: G	 Juernsey silty clay lo	_ Lat: nam_25 to 40 percent slope	Long: es_eroded		None		
Are climatic / hydrologic condit							
Are Vegetation, Soil	, or Hydrology	/ significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	/ naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showing sam	pling point location	ons, transects	, important features, etc.		
Lludrophytic Vegetation Dree	ont? Voc	X No					
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	X No	Is the Sampled Area	v			
Wetland Hydrology Present?		V	within a Wetland?	Yes X	No		
Remarks:							
Palustrine emergent wetland	in maintained powe	erline easement.					
HYDROLOGY							
Wetland Hydrology Indicat	ors:			Secondary Indica	tors (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)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Par			
Saturation (A3)		X Oxidized Rhizosphere	es on Living Roots (C3)				
Water Marks (B1)		Presence of Reduced	l Iron (C4)				
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Buri	rows (C8)		
Drift Deposits (B3)		Thin Muck Surface (C	27)	Saturation Vi	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or St	tressed Plants (D1)		
Iron Deposits (B5)				X Geomorphic	Position (D2)		
Inundation Visible on Ae	rial Imagery (B7)			Shallow Aqui	itard (D3)		
Water-Stained Leaves (I	39)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				X FAC-Neutral	Test (D5)		
Field Observations:							
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):					
Saturation Present?	Yes No _	X Depth (inches):	Wetland F	lydrology Presen	t? Yes X No		
(includes capillary fringe) Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, pre	vious inspections), if ava	ilable:			
`							
Remarks:							

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata:1 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 1.0 (A/B)
6				(70B)
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species80 x 1 =80.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 20 x 2 = 40.0
				FAC species0 x 3 =0.0
1				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 100 (A) 120.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 1.2
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Typha angustifolia	80	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Epilobium coloratum	15	No	FACW	
3. Phalaris arundinacea	20	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
<u> </u>				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	115	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>57.5</u>	20% of	total cover:	23.0	Was developed Allowed by San Specific (San Specific Speci
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3			-	
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

SOIL

Depth inches)	Matrix Color (moist)	%	Color (moist)	k Features %	Type ¹	Loc ²	Texture	Remarks
0 - 12	10YR 4/1	95	10YR 3/6	5	Concen	PL	Clay	Remarks
-								
-								
-								
					-			
		etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: PL=	Pore Lining, M=Matrix.
dric Soil Inc								ors for Problematic Hydric Soils ³ :
Histosol (A			Dark Surface		(00) (11)			m Muck (A10) (MLRA 147)
Histic Epip			Polyvalue Be					ast Prairie Redox (A16)
Black Histi	Sulfide (A4)		Thin Dark Su Loamy Gleye			17, 148)		MLRA 147, 148) dmont Floodplain Soils (F19)
	_ayers (A5)		X Depleted Mat	,	F2)			MLRA 136, 147)
	k (A10) (LRR N)		Redox Dark S		6)			y Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dar	•	,			er (Explain in Remarks)
	Surface (A12)	,	Redox Depre					,
Sandy Mu	cky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) (L	RR N,		
	147, 148)		MLRA 130	•				
	eyed Matrix (S4)		Umbric Surfa					ators of hydrophytic vegetation and
Sandy Red			Piedmont Flo					and hydrology must be present,
_ Stripped M			Red Parent M	faterial (F	21) (MLR<i>A</i>	127, 147	') unles	ss disturbed or problematic.
	yer (if observed):							
Type: Clay								×
Depth (inch	es): 12.0						Hydric Soil Pi	resent? Yes X No
marks:								





Soil







Project/Site: Buckeye Power-Nottingham	City/County: Harrison	County	Sampling Date: 10/05/2023
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland BN-21
Investigator(s): JFW	Section Township R		Gampling Folia.
Landform (hillslope, terrace, etc.): Hillside			Slone (%): 3
Substantian (LDB as MLDA), LRR N. MLRA 222	40.217547		Det.:: NAD 83
Subregion (LRR or MLRA): LRR N, MLRA 222 LSoil Map Unit Name: GuE2: Guernsey silty clay loa	m 25 to 40 percent slopes eroded	ng:	. None
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are	"Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If n	eeded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map showing sampling point	locations, transects	s, important features, etc.
Hadronkoffs Vansteffer Brazel (2	N. X		
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No X Is the Sample within a Wetla		¥
Wetland Hydrology Present? Yes	No X within a Wetla	ınd? Yes	NoX
Remarks:			
Upland data point in maintained powerline easeme	ent.		
opiana data point in maintainos portorinto caccino			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; ch	neck all that apply)	Surface Soil	
1	True Aquatic Plants (B14)		getated Concave Surface (B8)
	Hydrogen Sulfide Odor (C1)	Sparsery ve	
Saturation (A3)	 Oxidized Rhizospheres on Living Roc 		
	Presence of Reduced Iron (C4)		Water Table (C2)
	Recent Iron Reduction in Tilled Soils		
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic	Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu	uitard (D3)
Water-Stained Leaves (B9)			aphic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral	l Test (D5)
Field Observations:	X 5 4 (1)		
	Depth (inches):		
	Depth (inches):		nta Voc. No. X
Saturation Present? Yes No No	M Depth (inches): W	etland Hydrology Preser	nt? Yes No^
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspection	s), if available:	
Remarks:			
Remarks.			

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata: 2 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC:0.5 (A/B)
6				(VB)
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15				FACW species0 x 2 =0.0
				FAC species0 x 3 =0.0
1				FACU species 60 x 4 = 240.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 60 (A) 240.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 4.0
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0¹
	:	= Total Cove	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Schedonorus arundinaceus	50	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Verbesina alternifolia	30	Yes	FAC	
3. Daucus carota	15	No	UPL	¹ Indicators of hydric soil and wetland hydrology must
4 Urtica dioica	10	No	FACU	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	105	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>52.5</u>	20% of	total cover:	21.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				g.m
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No X
		= Total Cove		riesent: resNo
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix	<u></u> %	Redox Features Color (moist) % Type ¹ Loc	Textu	ro	Domorto	
nches)) - 10	Color (moist) 10YR 4/2	100	Color (moist) % Type ¹ Loc	<u>l extul</u>		Remarks	
- 10	1011(4/2				<u> </u>		
-							
_							
 -							
<u> </u>							
-							
ype: C=Cor	ncentration, D=Depl	etion, RM=Re	educed Matrix, MS=Masked Sand Grains.	² Locatio	n: PL=Pore Lin	ing, M=Matrix.	
dric Soil In		•	,	Į.	ndicators for P	roblematic Hydri	ic Soils ³ :
_ Histosol (A1)		Dark Surface (S7)			A10) (MLRA 147)	
	pedon (A2)		Polyvalue Below Surface (S8) (MLRA 1	- 147, 148)		e Redox (A16)	,
Black His			Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 14		
	Sulfide (A4)		Loamy Gleyed Matrix (F2)	,	•	oodplain Soils (F1	9)
	Layers (A5)		Depleted Matrix (F3)	_	(MLRA 13		,
	k (A10) (LRR N)		Redox Dark Surface (F6)	_		v Dark Surface (T	F12)
	Below Dark Surface	e (A11)	Depleted Dark Surface (F7)	_	Other (Expla	ain in Remarks)	,
_ Thick Dar	k Surface (A12)		Redox Depressions (F8)				
_ Sandy Mu	ucky Mineral (S1) (L	RR N,	Iron-Manganese Masses (F12) (LRR N	,			
MLRA	147, 148)		MLRA 136)				
_ Sandy Gl	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)	³ Indicators of h	ydrophytic vegeta	tion and
_ Sandy Re	edox (S5)		Piedmont Floodplain Soils (F19) (MLRA	A 148)	wetland hydro	ology must be pres	sent,
_ Stripped I	Matrix (S6)		Red Parent Material (F21) (MLRA 127,	147)	unless disturb	ed or problemation	: .
	ayer (if observed):						
Type: Clay	/						No X
				Hydric	Soil Present?	Yes	
Depth (inch			-	Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch			_	Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	
Depth (inch				Hydric	Soil Present?	Yes	





Project/Site: Buckeye Power-N	ottingham	Citv/C	county: Harrison County		Sampling Date: 10/05/2023		
Applicant/Owner: FirstEnergy					Sampling Point: Wetland BN-22		
Investigator(s): JFW		Section	on Townshin Range. S1				
Landform (hillslope, terrace, etc.	, Hillside	Local reli	ief (concave_convex_nor	ne). Flat	Slone (%): 4		
Subregion (LRR or MLRA): LR	R N, MLRA 222	1 at. 40.214355	81.0	059612	Olope (70)		
Soil Map Unit Name: GuE2: Gu	rernsev silty clay lo	nam 25 to 40 percent slope	Long: es eroded		None		
Are climatic / hydrologic condition							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	resent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problems	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDING	3S – Attach sif	te map showing sam	npling point location	ons, transects	, important features, etc.		
The december of a Manustar Cons. Donner	-10 V	X No.					
Hydrophytic Vegetation Prese Hydric Soil Present?	nt? Yes	X No	Is the Sampled Area	Y			
Wetland Hydrology Present?		V	within a Wetland?	Yes X	No		
Remarks:	100_						
Palustrine emergent wetland in	n maintained powe	rline easement.					
- alasimo sinolgeni irollana il	· ···a····a····a····a porio						
HYDROLOGY							
Wetland Hydrology Indicato	rs:			Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)	one io required, t	True Aquatic Plants (R14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Pat			
Saturation (A3)		X Oxidized Rhizosphere	. ,	Moss Trim Lines (B16)			
Water Marks (B1)		Presence of Reduced	• , ,		Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burn			
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren			tressed Plants (D1)		
Iron Deposits (B5)			,	Geomorphic	, ,		
Inundation Visible on Aeri	ial Imagery (B7)			Shallow Aqui			
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?		X Depth (inches):					
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	lydrology Presen	t? Yes X No		
(includes capillary fringe) Describe Recorded Data (stre	om gougo monito	ring wall parial photos pro	vious inspections) if ave	ilabla			
Describe Recorded Data (Sile	am gauge, monitor	ning well, aerial priolos, pre	vious irispections), ii ava	illable.			
Remarks:							

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		Number of Dominant Species That Are OBL_FACW_or_FAC: 1 (A)
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove		OBL species
50% of total cover:	20% of	total cover:		I
Sapling/Shrub Stratum (Plot size: 15				1 ACW species
1				rac species x s =
2				1 ACO species
3				OFL species X 5 =
4				Column Totals: 5 (A) 10.0 (B)
5				Prevalence Index = B/A = 2.0
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Typha angustifolia	70	Yes	OBL	Problematic Hydrophytic Vegetation (Explain)
2. Solidago gigantea	20	No	FACW	1
3. Scirpus atrovirens	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Symphyotrichum novae-angliae	5	No	FACW	Definitions of Four Vegetation Strata:
5				Deminions of Four Vogetation Gradu.
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				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				
	105	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 52.5		total cover:		of size, and woody plants loss than 5.25 it tall.
Woody Vine Stratum (Plot size: 30)	2070 01			Woody vine – All woody vines greater than 3.28 ft in
1				height.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
50% of total cover:		= Total Cove		100 <u></u> 110
		lotal cover.		
Remarks: (Include photo numbers here or on a separate s	neet.)			

SOIL

inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture		Remarks	
0 - 8	10YR 4/1	90	7.5YR 4/6	10	Concen	M	Silty clay		Remarks	
			7.0111 1/0				Only old	/		
<u> </u>										
<u>-</u> .								_		
-										
								_		
-										
								_		
							2			
	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Grai	ns.	Location:	PL=Pore Lin	ing, M=Matrix.	dria Caila ³
dric Soil In			5 10 ((07)			ina		roblematic Hy	
Histosol (A1) pedon (A2)		Dark Surface Polyvalue Be		o (89) /MI	DA 147	140)		A10) (MLRA 1 4 e Redox (A16)	47)
Black His			Polyvalue Be				140)	(MLRA 14		
	Sulfide (A4)		Loamy Gleye			7, 140)			oodplain Soils (F19)
	Layers (A5)		X Depleted Ma		_/			(MLRA 13		. 10)
	k (A10) (LRR N)		Redox Dark	, ,	6)				v Dark Surface	(TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		_	Other (Expla	in in Remarks)	
	k Surface (A12)		Redox Depre							
	ucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) (L l	RR N,				
	147, 148)		MLRA 13	•		400)	3,		1 1 2	
	eyed Matrix (S4)		Umbric Surfa						ydrophytic veg	
Sandy Re	Matrix (S6)		Piedmont Flo						logy must be pled or problema	
	ayer (if observed):		Neu Faleili i	nateriai (F2	21) (WILKA	121, 141	, '	uniess disturb	ed of problems	atio.
Type: Clay										
Depth (incl							Hydric S	oil Present?	Yes X	No
	les). <u>***</u>						nyunc 30	on Fresent?	165	NO
marks:										







Ν



Е



Project/Site: Buckeye Power-N	lottingham	Citv/C	County: Harrison County		Sampling Date: 10/05/2023
Applicant/Owner: FirstEnergy				Sampling Point: Upland BN-22	
Investigator(s): JFW		Section	on Townshin Range. S1		Gampling Found
Landform (hillslope, terrace, etc	 , . Hillside	Local rel	ief (concave, convex, nor	ne). Flat	Slone (%): 4
Subregion (LRR or MLRA): LR	R N. MLRA 222	40.214381	-81.0	059558	Siope (70)
Subregion (LRR or MLRA):	uernsey silty clay k	Lat:	Long:		Datum: The Do
Soil Map Unit Name: GuE2: Gu					
Are climatic / hydrologic conditi					
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	present? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)
SUMMARY OF FINDING	3S – Attach sif	te map showing san	npling point location	ons, transects	s, important features, etc.
Hudronk, tie Veretetien Droce		Na X			
Hydrophytic Vegetation Prese Hydric Soil Present?	nt? Yes	No X No X	Is the Sampled Area		Y
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX
Remarks:	100				
Upland data point in maintaine	ed powerline easen	nent.			
HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum		check all that apply)		Surface Soil	
Surface Water (A1)	<u>5. 6.76 16 76 qu. 6 qq</u>	True Aquatic Plants (B14)		getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Od			atterns (B10)
Saturation (A3)			es on Living Roots (C3)	Moss Trim L	
Water Marks (B1)		Presence of Reduced	-		Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (0			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aqu	uitard (D3)
Water-Stained Leaves (B	9)			Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	l Test (D5)
Field Observations:					
Surface Water Present?		X Depth (inches):			
Water Table Present?		X Depth (inches):			
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	lydrology Prese	nt? Yes NoX
(includes capillary fringe) Describe Recorded Data (stre	am gauge, monitor	ing well, aerial photos, pre	vious inspections), if ava	ilable:	
Dooring Notoriada Bala (dire	am gaage, meme	ing won, donar priotos, pro	vious inspositorioj, ii uva	masio.	
Remarks:					

22	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.25 (A/B)
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species 0 x 1 = 0.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 0 x 2 = 0.0
				FAC species 0 x 3 = 0.0
1				FACU species 5 x 4 = 20.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 5 (A) 20.0 (B)
4				Column Totals:5 (A)(B)
5				Prevalence Index = $B/A = 4.0$
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:_		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Galium aparine	20	Yes	FACU	Problematic Hydrophytic Vegetation (Explain)
2. Verbesina alternifolia	30	Yes	FAC	The disease of the disease is a second and be dead as a second
3. Daucus carota	20	Yes	UPL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Vernonia gigantea	5	No	FAC	Definitions of Four Vegetation Strata:
5. Solidago canadensis	20	Yes	FACU	Definitions of Four Vegetation Strata.
6. Dipsacus fullonum	5	No	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				Sapling/Shrub – Woody plants, excluding vines, less 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	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>50.0</u>		total cover:		Westerday Allowed a constant to a 0.00 ft in
Woody Vine Stratum (Plot size: 30				Woody vine – All woody vines greater than 3.28 ft in height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cove	r	Present? Yes No X
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s				<u> </u>
	,			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	e of indica	tors.)		
Depth	Matrix		Redox	k Features	S		_				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remar	ks	
0 - 8	10YR 4/2	100					Clay				
-											
							-	_			
								_			
-											
								_			
-											
								_			
								-			
								_			
-											
¹Type: C=Cc	ncentration, D=Depl	etion RM=R	educed Matrix MS	=Masked	Sand Gra	nins	² Location:	PI =Pore Lii	ning, M=Mat	rix	
Hydric Soil I		ouon, ruvi–ru	oddood Matrix, Mc	-Maonoa	Cana Ore				Problematic		ils³:
Histosol			Dark Surface	(\$7)					(A10) (MLR	-	
	ipedon (A2)		Polyvalue Be		ce (SS) /M	I R A 1/17			ie Redox (A		
Black His			Thin Dark Su		. , .		0/	(MLRA 1	,	.0)	
	n Sulfide (A4)		Loamy Gleye			77, 170)			Toodplain Sc	nile (F10)	
	Layers (A5)		Depleted Mat	,	2)			(MLRA 1) (1 1 <i>0)</i>	
	ck (A10) (LRR N)		Redox Dark S		6)				w Dark Surf	ace (TF12)	
	Below Dark Surface	(A11)	Depleted Dar						ain in Rema		
	rk Surface (A12)	(,,,,,	Redox Depre					o (=xp.			
	ucky Mineral (S1) (L	RR N.	Iron-Mangane			RR N.					
	147, 148)	,	MLRA 130		, / (.						
	leyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6. 122)	³ lr	dicators of	hydrophytic	vegetation	and
	edox (S5)		Piedmont Flo						ology must l	-	
	Matrix (S6)		Red Parent M						bed or probl		
	ayer (if observed):			(1	, (
Type: Cla											
Depth (inc							Hydric Sc	il Present?	Yes	No	Χ
			<u> </u>				Tiyano oc	11 1 1000111.			_
Remarks:											





Project/Site: Buckeye Power-	Nottingham	(City/County: Harrison County	,	Sampling Date: 10/05/2023			
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Wetland BN-23			
Investigator(s): JFW			Section Township Range. S		Camping Form.			
Landform (hillslope, terrace, et	to). Footslope	Loc	al relief (concave, convex, no	one). Concave	Slone (%). 3			
Coloradia (LDD and DA)	RR N. MLRA 222	40.212092	-81	.057241	Clope (70)			
Subregion (LRR or MLRA): LF Soil Map Unit Name: Me: Me!	vin silt loam, freque	ntly ponded 0 to 3 ne	rcent slones		Datum:			
Soil Map Unit Name: We. We.	mir siit loam, nequei	Titiy porided, 0 to 5 pe	v	NWI classific	ation: NOOBIT			
Are climatic / hydrologic condit								
Are Vegetation X, Soil	, or Hydrology	significantly o	disturbed? Are "Norma	al Circumstances" p	oresent? Yes X No No			
Are Vegetation, Soil								
SUMMARY OF FINDIN	GS – Attach si	te map showing	sampling point location	ons, transects	, important features, etc.			
Lludrophytic Vegetation Dree	ont? Voc	X No.						
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	X No Is the Sampled Area No within a Wetland?		Y				
Wetland Hydrology Present?	Yes		within a Wetland?	Yes X	No			
Remarks:								
Palustrine emergent wetland	associated with a st	tream and pond in ma	intained powerline easement					
HYDROLOGY								
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum		check all that apply)		Surface Soil Cracks (B6)				
Surface Water (A1)			getated Concave Surface (B8)					
High Water Table (A2)		True Aquatic Pla Hydrogen Sulfid	Drainage Pa					
Saturation (A3)		X Oxidized Rhizos	spheres on Living Roots (C3)	Moss Trim Li	nes (B16)			
Water Marks (B1)		Presence of Red	duced Iron (C4)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Rec	duction in Tilled Soils (C6)	6) Crayfish Burrows (C8)				
Drift Deposits (B3)		Thin Muck Surfa			sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in	n Remarks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)				X Geomorphic				
Inundation Visible on Ae				Shallow Aquitard (D3)				
Water-Stained Leaves (I	39)			Microtopographic Relief (D4) X FAC-Neutral Test (D5)				
Aquatic Fauna (B13)				A FAC-Neutral	Test (D5)			
Field Observations: Surface Water Present?	Van Na	X Donath (in also as)						
		X Depth (inches): X Depth (inches):						
Water Table Present?		X Depth (inches):		Hydrology Preser	X N			
Saturation Present? (includes capillary fringe)	Yes No _	Depth (inches):	wetland	Hydrology Preser	t? Yes^ No			
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos	s, previous inspections), if av	ailable:				
Domorlos								
Remarks:								

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata:1 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 1.0 (A/B)
6				That the OBE, 1 Nov, of 1 No (775)
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15				FACW species105 x 2 =210.0
				FAC species0 x 3 =0.0
1				FACU species 0 x 4 = 0.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 105 (A) 210.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 2.0
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0¹
	:	= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Phalaris arundinacea	100	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Typha angustifolia	5	No	OBL	
3. Symphyotrichum novae-angliae	5	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	110	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>55.0</u>		total cover:		Was devices Allows above as a sector than 2.00 ft in
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3				
4			-	Hydrophytic
5				Vegetation
F00/ - (total		= Total Cove		1100m: 100 NO
50% of total cover:		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

SOIL

Depth	ription: (Describe Matrix		Redo	x Feature:	S					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>		Remarks	
0 - 3	10YR 4/1	90	7.5YR 4/4	10	Concen	PL	Clay loam			
3 - 10	10YR 4/1	85	5YR 4/6	15	Concen	PL	Clay			
-										
		. ——								
								-		
-										
-										
_										
	-	. ——								
								-		
-										
-										
vne: C=Cc	ncentration, D=Dep	letion RM=	Reduced Matrix MS	S-Masker	Sand Grai	ns	² Location: P	I =Pore Lini	ng, M=Matrix.	
	ndicators:	iodon, ravi–	readoca Matrix, Me)—IVIQOROC	Touria Orai	110.			roblematic Hy	dric Soils ³ :
_ Histosol			Dark Surface	(\$7)					A10) (MLRA 1 4	
	ipedon (A2)		Polyvalue Be		ce (S8) (MI	RA 147.			Redox (A16)	,
_ Black His			Thin Dark Su		. , .		,	(MLRA 14		
	n Sulfide (A4)		Loamy Gleye			.,,	Р	•	oodplain Soils ((F19)
	Layers (A5)		X Depleted Mat		/			(MLRA 13		()
	ck (A10) (LRR N)		Redox Dark S		6)		V		v Dark Surface	(TF12)
	Below Dark Surface	e (A11)	Depleted Dar						in in Remarks)	
_ Thick Da	rk Surface (A12)		Redox Depre	ssions (F	8)					
_ Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) (L	RR N,				
MLRA	147, 148)		MLRA 13	6)						
_ Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 136	, 122)	³ Ind	icators of h	ydrophytic veg	etation and
_ Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19) (MLRA 14	8) we	etland hydro	logy must be p	resent,
_ Stripped	Matrix (S6)		Red Parent N	laterial (F	21) (MLRA	127, 147	") un	less disturb	ed or problema	atic.
estrictive L	ayer (if observed):									
Type: Ro	ck									
Depth (inc	hes): 10.0						Hydric Soil	Present?	Yes X	No
emarks:	,									
Jilianto.										











Project/Site: Buckeye Power-I	Nottingham		City/County: Harrison Cour	nty	Sampling Date: 10/03/2023			
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Wetland BN-24			
Investigator(s): MJA			Section Township Range:		Odinipining i oniti			
Landform (hillslope, terrace, et	Toeslope	Loc	cal relief (concave, convex	none). Concave	Slone (%). 1-3			
Subregion (LRR or MLRA): LF	RR N, MLRA 222	40.211882		31.056858	Detum: NAD 83			
Soil Map Unit Name: BnE: Be	rks-Guernsey comp	lex. 25 to 40 percent	slopes	NA				
Are climatic / hydrologic condit								
Are Vegetation, Soil	, or Hydrology	significantly	disturbed? Are "Norr	mal Circumstances" _ا	present? Yes X No			
Are Vegetation, Soil	, or Hydrology	naturally pro	oblematic? (If needed	d, explain any answe	ers in Remarks.)			
SUMMARY OF FINDIN	GS – Attach si	te map showing	sampling point loca	tions, transects	s, important features, etc.			
Hudranh, dia Manatatian Dua		X No						
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	X No	Is the Sampled Are	a _Y				
Wetland Hydrology Present?		\ /	within a Wetland?	Yes X	No			
Remarks:		110						
PEM wetland at toe of slope a	adjacent to gravel d	rive.						
HYDROLOGY								
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum	of one is required;	check all that apply)		Surface Soil	Cracks (B6)			
Surface Water (A1)		Sparsely Ve	getated Concave Surface (B8)					
High Water Table (A2)		Drainage Pa	atterns (B10)					
Saturation (A3)		· ·	spheres on Living Roots (C	· —				
Water Marks (B1)		Presence of Re			Water Table (C2)			
Sediment Deposits (B2)			duction in Tilled Soils (C6)					
Drift Deposits (B3)		Thin Muck Surf		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Iron Deposits (B5)		Other (Explain	in Remarks)	Stunted or Stressed Plants (D1)				
Inundation Visible on Ae	rial Imagery (B7)			X Geomorphic Position (D2)				
Water-Stained Leaves (E				Shallow Aquitard (D3) Microtopographic Relief (D4)				
Aquatic Fauna (B13)	20)			X FAC-Neutral	• , ,			
Field Observations:								
Surface Water Present?	Yes No	X Depth (inches)):					
Water Table Present?		X Depth (inches)						
Saturation Present?		X Depth (inches)		d Hydrology Presei	nt? Yes ^X No			
(includes capillary fringe)								
Describe Recorded Data (str	eam gauge, monitor	ring weil, aerial photo	os, previous inspections), if a	available:				
Remarks:								

20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?	<u>Status</u>	Number of Dominant Species That Are ORL FACW or FAC: 2 (A)
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata:2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
50% ()		= Total Cove		OBL species35 x 1 =35.0
50% of total cover:	20% of	total cover:		FACW species 75 x 2 = 150.0
Sapling/Shrub Stratum (Plot size: 15				FAC species 0 x 3 = 0.0
1				1 AO species
2				
3				400 0050
4				Column Totals:(A)(B)
5				Prevalence Index = B/A = 1.9
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Phalaris arundinacea	70	Yes	FACW	Problematic Hydrophytic vegetation (Explain)
2. Typha angustifolia	35	Yes	OBL	1
3. Symphyotrichum novae-angliae	5	No	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Solidago canadensis	10	No	FACU	Definitions of Four Vegetation Strata:
5				Seminoria 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.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				
	120	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60.0		total cover:		of size, and woody plants less than 5.25 it tall.
Woody Vine Stratum (Plot size: 30)	2070 01	total 00101.		Woody vine – All woody vines greater than 3.28 ft in
1				height.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
50% of total cover:		= Total Cove		100 <u> </u>
		total cover.		
Remarks: (Include photo numbers here or on a separate s	heet.)			

epth _	Matrix	%		x Feature		Loc ²	Taytura		Remarks	
<u>nches) </u>	Color (moist) 10YR 4/2	<u>%</u> 95	Color (moist) 5YR 5/6	<u>%</u> 5	Type ¹ Concen	PL,M	Texture Clay loam		Kemarks	
- 10	101K 4/2	95			Concer	PL,IVI	Clay loani			
-										
-										
						-				
-										
/pe: C=Con	centration. D=Depl	etion. RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	² Location: PL	.=Pore Lini	ng. M=Matrix.	
dric Soil In			· · · · · · · · · · · · · · · · · · ·						roblematic Hy	
Histosol (A			Dark Surface	e (S7)			2	cm Muck (A10) (MLRA 1	47)
	pedon (A2)		Polyvalue Be		ce (S8) (M	LRA 147,			Redox (A16)	
Black Histi			Thin Dark Su					(MLRA 14		
	Sulfide (A4)		Loamy Gleye			, -,	Pi		oodplain Soils	(F19)
	_ayers (A5)		X Depleted Ma		,			(MLRA 13		,
	k (A10) (LRR N)		Redox Dark	. ,	- 6)		Ve		v Dark Surface	e (TF12)
	Below Dark Surface	e (A11)	Depleted Da	,					in in Remarks	
Thick Dark	Surface (A12)		Redox Depre	essions (F	8)					
Sandy Mu	cky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) (L	.RR N,				
MLRA 1	147, 148)		MLRA 13	6)						
_ Sandy Gle	eyed Matrix (S4)		Umbric Surfa	ace (F13) ((MLRA 136	6, 122)	³ Indi	cators of h	ydrophytic veg	getation and
_ Sandy Red	dox (S5)		Piedmont Flo	oodplain S	oils (F19) (MLRA 14	I8) wet	land hydro	logy must be	present,
_ Stripped M	fatrix (S6)		Red Parent I	Material (F	21) (MLR	127, 147	7) unle	ess disturb	ed or problem	atic.
estrictive La	yer (if observed):									
Type:										
Depth (inch	es):						Hydric Soil	Present?	Yes X	No
. ,										
emarks:										





N E





S W



Soil

Project/Site: Buckeye Power-N	Nottingham	Citv/C	County: Harrison County		Sampling Date: 10/03/2023		
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-23,24		
Investigator(s): MJA		Section	on Township Range. S1		Camping Font		
Landform (hillslope, terrace, et	C.): Hillside	L ocal rel	ief (concave, convex, nor	ne): Convex	Slope (%): 5-15		
Subregion (LRR or MLRA): LR	RR N, MLRA 222	40.211872	Lang81.0	056809	Datum, NAD 83		
Soil Map Unit Name: BnE: Ber	 rks-Guernsev.comn'	Lat:lev 25 to 40 percent slope	Long:		. N/A		
Are climatic / hydrologic condit							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDING	GS – Attach sit	te map showing san	npling point location	ons, transects	s, important features, etc.		
Hudrophytia Vagatation Brook	ont? Voc	No_X					
Hydrophytic Vegetation Present?	Yes	No X	Is the Sampled Area		X		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:							
Upland data point in maintain	ed powerline easem	nent.					
' '	·						
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)	or one is required, t	True Aquatic Plants ((B14)		getated Concave Surface (B8)		
High Water Table (A2)			Drainage Patterns (B10)				
Saturation (A3)		— Hydrogen Sulfide Od Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim L			
Water Marks (B1)		Presence of Reduced		Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction					
Drift Deposits (B3)		Thin Muck Surface (0		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aer	rial Imagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (E	39)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:		V					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):			V		
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	lydrology Preser	nt? Yes NoX		
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monitor	ring well, aerial photos, pre	evious inspections), if ava	ilable:			
(***	33.,	3 - , ,, , , ,					
Remarks:							

VEG

20	Absolute	Dominant		Dominance Test worksheet:
<u>Free Stratum</u> (Plot size: 30)		Species?	Status	Number of Dominant Species
•				That Are OBL, FACW, or FAC:0 (A)
<u>-</u>				Total Number of Dominant
·				Species Across All Strata:3 (B)
•				Percent of Dominant Species
4		· ——		That Are OBL, FACW, or FAC: 0.0 (A/B)
<u> </u>				Prevalence Index worksheet:
		= Total Cov		
50% of total cover:	20% of	total cover:		OBL species
Sapling/Shrub Stratum (Plot size: 15			=	racvi species x z =
Rubus allegheniensis	10	Yes	FACU	1 AO Species
		· ——		1 ACO species X 4 =
				UPL species 0 x 5 = 0.0
		. <u></u>		Column Totals:160
. <u> </u>				Prevalence Index = B/A = 3.4
i <u> </u>				Hydrophytic Vegetation Indicators:
•		· <u> </u>		No 1 - Rapid Test for Hydrophytic Vegetation
<u>. </u>				No 2 - Dominance Test is >50%
				No 3 - Prevalence Index is ≤3.0 ¹
	10	= Total Cov	er	
50% of total cover: <u>5.0</u>	20% of	total cover:	5.0	No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
Solidago canadensis	55	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
Verbesina alternifolia	20	No	FAC	
Apocynum cannabinum	35	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
Conium maculatum	20	No	FACW	be present, unless disturbed or problematic.
Phalaris arundinacea		No	FACW	Definitions of Four Vegetation Strata:
:				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
*	_			more in diameter at breast height (DBH), regardless of
•				height.
l	_			Sapling/Shrub – Woody plants, excluding vines, less
l <u> </u>		· 		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
0	<u> </u>	·		iii) taii.
1				Herb – All herbaceous (non-woody) plants, regardless
75.00/ at tatal account 75.		= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>75.</u>	20% 01	total cover:	30.0	Woody vine – All woody vines greater than 3.28 ft in
Voody Vine Stratum (Plot size: 30)				height.
•				
<u>-</u>				
·				
·				Hydrophytic
i				Vegetation
		= Total Cov	er	Present? Yes No X
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separat	e sheet.)			
·				

Sampling Point: Upland BN-23,24

Profile Desc	ription: (Describe	to the dept	h needed to docum	ent the i	ndicator	or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redox	c Features	3						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture		Remar	ks	
0 - 8	10YR 4/2	100					Clay loam				
8 - 16	10YR 4/3	100					Clay loam	'			
			·					-			
-											
								-			
-											
								-			
¹ Type: C=Co	ncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: P	L=Pore Lin	ing, M=Mat	rix.	
Hydric Soil I	ndicators:						Indic	ators for P	roblematic	Hydric So	ils³:
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck	(A10) (MLR	A 147)	
Histic Ep	ipedon (A2)		Polyvalue Bel	low Surfac	ce (S8) (N	ILRA 147,	148) 0	Coast Prairi	e Redox (A	16)	
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 1	47, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (I	F2)		F	Piedmont Fl	loodplain Sc	oils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 1	36, 147)		
	ck (A10) (LRR N)		Redox Dark S					-	w Dark Surf	. ,	
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		c	Other (Expla	ain in Rema	rks)	
	rk Surface (A12)		Redox Depre								
	ucky Mineral (S1) (L	.RR N,	Iron-Mangane		es (F12) (I	_RR N,					
	147, 148)		MLRA 136	•			2				
	leyed Matrix (S4)		Umbric Surfa						nydrophytic	-	and
	edox (S5)		Piedmont Flo						ology must l		
	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	') un	less disturb	ped or probl	ematic.	
Restrictive L	ayer (if observed):										
Type:											
Depth (inc	hes):						Hydric Soil	Present?	Yes	No _	X
Remarks:											





Ε

Project/Site: Buckeye Power-Nottingham	City/County: I	Harrison County	Sampling Date: 10/03/2023				
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland BN-25				
Investigator(s): MJA	Section Town		camping round				
Landform (hillslope, terrace, etc.): Floodplain	Local relief (conc	ave convex none). Concave	Slone (%): 0-3				
Subregion (LRR or MLRA): LRR N, MLRA 222 La	40.20547	-81.050854	Dotum: NAD 83				
Soil Map Unit Name: Or: Orrville silt loam, 0 to 3 per	cent slopes, occasionally floode	Long	Datum: R5UBH				
Are climatic / hydrologic conditions on the site typical							
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 answ	vers in Remarks.)				
SUMMARY OF FINDINGS – Attach site	map showing sampling	point locations, transect	s, important features, etc.				
Liverage via Variation Branchi	Ne						
Hydrophytic Vegetation Present? Yes^ Hydric Soil Present? YesX		Sampled Area	•				
Wetland Hydrology Present? Yes X	No within	a Wetland? YesX	No				
Remarks:							
Palustrine emergent wetland in maintained powerlin	e easement. Evidence of beave	r activity. Abuts South Fork brush	ny Fork (a perenniai stream).				
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)				
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface So	il Cracks (B6)				
Surface Water (A1)	Sparsely V	egetated Concave Surface (B8)					
	V						
	Presence of Reduced Iron (C		Dry-Season Water Table (C2)				
	Recent Iron Reduction in Tille		Crayfish Burrows (C8)				
Drift Deposits (B3)	_ Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)				
	_ Other (Explain in Remarks)		Stressed Plants (D1)				
Iron Deposits (B5)		X Geomorphi					
X Inundation Visible on Aerial Imagery (B7)		Shallow Ad					
Water-Stained Leaves (B9) Aquatic Fauna (B13)		X FAC-Neutr	raphic Relief (D4)				
Field Observations:			ai rest (D3)				
	Depth (inches):						
	Depth (inches):						
	Depth (inches):	Wetland Hydrology Prese	ent? Yes X No				
(includes capillary fringe)	Deptil (iliches)	Welland Hydrology Frest	ent: TesNo				
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous ins	spections), if available:					
Remarks:							
remand.							

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata: 2 (B)
4		<u></u>		D
5				Percent of Dominant Species That Are OBL, FACW, or FAC:1.0 (A/B)
6				(VB)
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species30 x 1 =30.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species90 x 2 =180.0
				FAC species0 x 3 =0.0
1				FACU species 10 x 4 = 40.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 130 (A) 250.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 1.9
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0¹
	:	= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Phalaris arundinacea	90	Yes	FACW	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Typha angustifolia	30	Yes	OBL	
3. Dipsacus fullonum	5	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4 Solidago canadensis	5	No	FACU	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	130	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 65.0	20% of	total cover:	26.0	Was divides. All was divided assets the 2.200 ft in
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				g.m
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
FOOV of total account		= Total Cove		11030IK. 103 NO
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

SOIL

epth _	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc ²	Texture		Remarks	
<u>nches) </u>	10YR 4/2	95	5YR 4/6	5	Concen	PL,M	rexture		Remarks	
	1011(4/2									
<u>-</u>										
-										
<u>-</u>										
-										
		· 								
		letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: PL	=Pore Lin	ing, M=Matrix.	
Iric Soil Inc	dicators:						Indica	tors for P	roblematic Hy	dric Soils ³
Histosol (A			Dark Surface						A10) (MLRA 1	47)
Histic Epip			Polyvalue Be				148) C		e Redox (A16)	
Black Histi	, ,		Thin Dark Su			47, 148)		(MLRA 14		
	Sulfide (A4)		Loamy Gleye	,	F2)				oodplain Soils	(F19)
	ayers (A5)		X Depleted Mat					(MLRA 13		
	(A10) (LRR N)		Redox Dark S	,	,				v Dark Surface	
	Below Dark Surface	∍ (A11)	Depleted Dar				O	ther (Expla	in in Remarks)
	Surface (A12)	DD N	Redox Depre			DD N				
	cky Mineral (S1) (L	.RR N,	Iron-Mangane		es (F12) (L	.RR N,				
	147, 148)		MLRA 130	•	MI D A 400	100\	31			
Sandy Gle Sandy Red	yed Matrix (S4)		Umbric Surfa						ydrophytic veg	
Sandy Red Stripped M			Piedmont Flo Red Parent M						ology must be pleed or problem	
	yer (if observed):		Red Falent N	nateriai (F.	ZI) (WILK)	127, 147) unii	ess distuit	led of problem	alic.
	yer (ii observed).									
Type:	>						111-1-0-11	D	v X	NI-
	es):						Hydric Soil	Present?	Yes X	No
marks:										





N E





S W



Soil

Project/Site: Buckeye Power-Nottin	gham	Citv/C	county: Harrison County		Sampling Date: 10/03/2023		
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland BN-25					
Investigator(s): MJA		Section	on Township Range. S1		Oampling Folia.		
Landform (hillslope, terrace, etc.):		L ocal reli	ief (concave, convex, nor	ne). Flat	Slone (%): 3-5		
Colorada (LDB and LDA) LRR N.	MLRA 222	40.205534	-81.0	050868	Slope (70)		
Subregion (LRR or MLRA): LRR N, Soil Map Unit Name: Or: Orrville sil	t loam 0 to 3 perce	ent slones occasionall	v flooded		Datum: 11 12 00		
Are climatic / hydrologic conditions							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS -	- Attach site m	nap showing sam	npling point locatio	ns, transects	s, important features, etc.		
Lludranhutia Vanatatian Dusaanto		No. X					
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes	No X	Is the Sampled Area		Υ		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:	100						
Upland data point in maintained po	werline easement.						
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of on	e is required: chec	k all that apply)		Surface Soil			
Surface Water (A1)	•	True Aquatic Plants (B14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Patterns (B10)			
Saturation (A3)			es on Living Roots (C3)				
Water Marks (B1)		Presence of Reduced			Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur			
Drift Deposits (B3)	_	Thin Muck Surface (C			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aerial In	nagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (B9)				Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra	Test (D5)		
Field Observations:							
		Depth (inches):					
Water Table Present? Ye	s No _X	Depth (inches):					
	s No _X	Depth (inches):	Wetland H	lydrology Prese	nt? Yes NoX		
(includes capillary fringe) Describe Recorded Data (stream of the control of the	nauge monitoring	well aerial photos pre	vious inspections) if ava	ilahle:			
Describe Recorded Data (stream)	Jauge, mornioring v	well, acrial priolos, pre	vious irispections), ii ava	mabic.			
Remarks:							

20	Absolute	Dominant		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 Number of Dominant
3				Species Across All Strata: 2 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC:
6				(VB)
7				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover:				OBL species0 x 1 =0.0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0.0
1 Rosa multiflora	20	Yes	FACU	FAC species 25 x 3 = 75.0
· · · · · · · · · · · · · · · · · · ·				FACU species 110 x 4 = 440.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 135 (A) 515.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 3.8
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
	20	= Total Cov	er	
50% of total cover: <u>10.0</u>	20% of	total cover:	10.0	No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1 Solidago canadensis	70	Yes	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Dipsacus fullonum	20	No	FACU	
3. Symphyotrichum pilosum	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must
4 Verbesina alternifolia	15	No	FAC	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	115	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>57.5</u>		total cover:		
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				neight.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No X
		= Total Cov		Present? Yes No _^
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

SOIL

inches)	Matrix Color (moist)	% (Redox Features Color (moist) % Type ¹ Lo	oc² Textu		Remarks	
-	10YR 4/3	100	Color (moist) 76 Type Lo	Silty Ic		Remarks	
	1011(4/0			Only 10			
-							
-							
				<u> </u>	 _		
<u> </u>							
<u> </u>							
-							
- -					· ·		
		tion, RM=Rec	duced Matrix, MS=Masked Sand Grains.	² Locatio	n: PL=Pore Lin	ing, M=Matrix.	
dric Soil In	dicators:			I	ndicators for P	roblematic Hy	ydric Soils ³ :
_ Histosol (A		_	Dark Surface (S7)	-		A10) (MLRA 1	
	pedon (A2)	_	Polyvalue Below Surface (S8) (MLRA		Coast Prairie		
Black Hist		_	Thin Dark Surface (S9) (MLRA 147, 1	148)	(MLRA 14		
	Sulfide (A4)	-	Loamy Gleyed Matrix (F2)	-		oodplain Soils	(F19)
	ayers (A5)	-	Depleted Matrix (F3)		(MLRA 13		(TE40)
	k (A10) (LRR N) Below Dark Surface	(//11)	Redox Dark Surface (F6)Depleted Dark Surface (F7)	-		v Dark Surface ain in Remarks	
	Surface (A12)	(A11)	Redox Depressions (F8)	-	Other (Expla	III III Kemarks)
	cky Mineral (S1) (LF	RR N.	Iron-Manganese Masses (F12) (LRR	N.			
	147, 148)		MLRA 136)	,			
	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12	22)	³ Indicators of h	ydrophytic veg	getation and
_ Sandy Re		_	Piedmont Floodplain Soils (F19) (MLI			ology must be i	
_ Stripped M	Matrix (S6)	_	Red Parent Material (F21) (MLRA 12		unless disturb	ed or problem	atic.
estrictive La	yer (if observed):						
Туре:			_				
Depth (inch	es):		_	Hydrid	Soil Present?	Yes	No X
emarks:				J			





Ν

Project/Site: Buckeye Power-Nottingham	Citv/C	ounty: Harrison County		Sampling Date: 10/03/2023		
Applicant/Owner: FirstEnergy	ounty.	State: OH	Sampling Point: Wetland BN-26			
Investigator(s): MJA	T9N R5W	Odinpinig i ointi				
Landform (hillslope, terrace, etc.): Gulch or Gully		of (concave, convey, none	Concave	Slope (%). 1-3		
Subregion (LRR or MLRA): LRR N, MLRA 222	40.201122	er (concave, convex, none	;). 46316	Slope (%) NAD 83		
Subregion (LRR or MLRA):	_ Lat: erv silty clay loam 25 to 70 i	Long:	2d	Datum: Δ 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		
Soil Map Unit Name: Mwg6F: Morristown channel			 '	·		
Are climatic / hydrologic conditions on the site type						
Are Vegetation, Soil, or Hydrolog	y significantly distur	bed? Are "Normal 0	Circumstances" pi	resent? Yes X No		
Are Vegetation, Soil, or Hydrolog	y naturally problema	atic? (If needed, ex	plain any answer	s in Remarks.)		
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point location	ns, transects,	important features, etc.		
	χ					
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes	X No	Is the Sampled Area	ed Area			
Wetland Hydrology Present? Yes _		within a Wetland?	Yes X	No		
Remarks:	110					
Palustrine emergent wetland in maintained pow	erline easement					
Taldeline emergent wettand in maintained per	omino cacomona					
HYDROLOGY						
Wetland Hydrology Indicators:		Ģ	Secondary Indicat	fors (minimum of two required)		
Primary Indicators (minimum of one is required:	check all that apply)	_	Surface Soil (
Surface Water (A1)	True Aquatic Plants (etated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Odd		Oparacry veg Drainage Pati			
X Saturation (A3)	X Oxidized Rhizosphere	. ,	Moss Trim Lir			
Water Marks (B1)	Presence of Reduced	- , , -		Vater Table (C2)		
Sediment Deposits (B2)	Recent Iron Reductio		Crayfish Burr			
Drift Deposits (B3)	Thin Muck Surface (C			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Ren			ressed Plants (D1)		
Iron Deposits (B5)			X Geomorphic I			
Inundation Visible on Aerial Imagery (B7)			Shallow Aguitard (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):					
Saturation Present? Yes X No	Depth (inches):	0 Wetland Hy	drology Present	t? Yes X No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitor)	oring well periol photos, pro	vious inspections) if avail-	ablo:			
Describe Recorded Data (Stream gauge, month	oning well, aerial priotos, pre	vious irispections), ii availi	able.			
Remarks:						

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

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
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 % Cover of: Multiply by:
F00/ -//		= Total Cove		OBL species65 x 1 =65.0
50% of total cover:	20% of	total cover:		FACW species30 x 2 =60.0
Sapling/Shrub Stratum (Plot size: 15				FAC species $0 \times 3 = 0.0$
1				FACU species 20
2				UPL species 0 x 5 = 0.0
3				445
4				Column Totals:115 (A)205.0 (B)
5				Prevalence Index = B/A = 1.8
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5	50		ODI	No Problematic Hydrophytic Vegetation (Explain)
1. Scirpus atrovirens	50	Yes	OBL	<u> </u>
2. Poa pratensis	20	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Juncus effusus	15	No	FACW	be present, unless disturbed or problematic.
4. Typha angustifolia	15	No	OBL	Definitions of Four Vegetation Strata:
5. Mentha arvensis	5	<u>No</u>	FACW	Tree Meady plants avaluding vines 2 in (7.6 cm) or
6. Eupatorium perfoliatum	10	No	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				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>57.5</u>	20% of	total cover:	23.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3				
4				Hydrophytio
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 s	heet.)			
	,			

inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	SType ¹	Loc ²	Texture	Remarks
) - 16	10YR 3/2	70	7.5YR 5/6	10	Concen	PL,M	Silty clay	Silt top 2", silty clay below 2"
) - 16	Gley 1 2.5/_	20					Silty clay loam	
	Gley 1 2.3/_						Only clay loan	
-								
-								
-								
_								
							-	
							-	
-								
ype: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: Pl	_=Pore Lining, M=Matrix.
dric Soil I	ndicators:						Indica	tors for Problematic Hydric Soils ³
_ Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148) C	oast Prairie Redox (A16)
_ Black His			Thin Dark Su			17, 148)	_	(MLRA 147, 148)
	n Sulfide (A4)		X Loamy Gleye		F2)		P	edmont Floodplain Soils (F19)
	l Layers (A5) ck (A10) (LRR N)		Depleted Mat X Redox Dark S	. ,	-6)		\/	(MLRA 136, 147) ery Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dar	•	,			ther (Explain in Remarks)
	ark Surface (A12)	, (, , , ,	Redox Depre				_ `	(=,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	lucky Mineral (S1) (L	.RR N,	Iron-Mangane			RR N,		
MLRA	\ 147, 148)		MLRA 136	6)				
	leyed Matrix (S4)		Umbric Surfa					cators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					tland hydrology must be present,
	Matrix (S6)		Red Parent M	faterial (F	21) (MLR	127, 147	') unl	ess disturbed or problematic.
	_ayer (if observed):							
Type:								- x X
	ches):						Hydric Soil	Present? Yes X No
Depth (inc								
emarks:								





N E





S W



Soil

Project/Site: Buckeye Power-Nottingham		Sampling Date: 10/03/2023				
Applicant/Owner: FirstEnergy			Sampling Point: Wetland BN-27			
Investigator(s): MJA	on Township Range. S18					
Landform (hillslope, terrace, etc.): Gulch or Gully	y Local reli	ief (concave, convey, non	ο). Concave	Slone (%). 1-3		
Subregion (LRR or MLRA): LRR N, MLRA 222	-81.0)45697				
Soil Map Unit Name: Mwf6F: Morristown channel	Lat: erv silty clay loam 25 to 70 r	Long: percent slopes_unreclaim	ed	N/A		
•				•		
Are climatic / hydrologic conditions on the site ty						
Are Vegetation, Soil, or Hydrolog	y significantly distur	bed? Are "Normal	Circumstances" pr	esent? Yes X No		
Are Vegetation, Soil, or Hydrolog	y naturally problema	atic? (If needed, e.	xplain any answers	s in Remarks.)		
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point locatio	ns, transects,	important features, etc.		
Hudronhutia Vanatatian Danasata	X No					
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes	X No	Is the Sampled Area	pled Area			
Wetland Hydrology Present? Yes		within a Wetland?	Yes X	No		
Remarks:	110					
Palustrine emergent wetland in maintained pow	enine easement, wettand h	ows into an epnemeral str	eam, which hows	west of ROW.		
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of two required)		
Primary Indicators (minimum of one is required	; check all that apply)		Surface Soil C	Cracks (B6)		
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vege	etated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Patt	erns (B10)		
X Saturation (A3)	X Oxidized Rhizosphere	• , ,	Moss Trim Lin			
Water Marks (B1)	Presence of Reduced			Vater Table (C2)		
Sediment Deposits (B2)	Recent Iron Reductio		Crayfish Burro			
Drift Deposits (B3)	Thin Muck Surface (C			ible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Rer			essed Plants (D1)		
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)			X Geomorphic Position (D2)			
Water-Stained Leaves (B9)			Shallow Aquitard (D3) Microtopographic Relief (D4)			
Aquatic Fauna (B13)			X FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present? Yes No	X Depth (inches):					
	X Depth (inches):					
	Depth (inches):		ydrology Present	? Yes X No		
(includes capillary fringe)			-			
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, pre	vious inspections), ir avai	iable:			
Remarks:						

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2.				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Demont of Deminent Consis
5	-			Percent of Dominant Species That Are OBL, FACW, or FAC: 1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
50% of total cover:		= Total Cover		OBL species 65 x 1 = 65.0
Sapling/Shrub Stratum (Plot size: 15	20 /6 01	total cover.		FACW species 50 x 2 = 100.0
				FAC species 0 x 3 = 0.0
1				FACU species 15 x 4 = 60.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 130 (A) 225.0 (B)
4. 5.				
6				Prevalence Index = B/A = 1.7 Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Typha angustifolia	25	Yes	OBL	Problematic Hydrophytic vegetation (Explain)
2. Juncus effusus	45	Yes	FACW	Indicators of hydric coil and watland hydrology must
3. Scirpus atrovirens	20	No	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Carex Iurida	15	No	OBL	Definitions of Four Vegetation Strata:
5. Eupatorium perfoliatum	5	No	FACW	
6. Carex frankii	5	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7. Schedonorus arundinaceus	15	No	FACU	height.
8				Continue (Charula - Manda and and analysis and and
9				Sapling/Shrub – Woody plants, excluding vines, less 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
	130	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 65.0 Woody Vine Stratum (Plot size: 30)	20% of	total cover:	26.0	Woody vine – All woody vines greater than 3.28 ft in
1				height.
2				
3				
4				
5				Hydrophytic Vegetation
<u> </u>		= Total Cove	or.	Present? Yes X No
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s				
Tremains. (include priore numbers here or on a separate s	ilicot.)			

Depth	Matrix			<u>Features</u>	S1	1 - 2	Total	D
inches) 0 - 3	Color (moist) 10YR 3/2	<u>%</u> 100	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture Silty loam	Remarks
								
3 - 16	10YR 3/1	90	5YR 4/6	10	Concen	PL_	Silty loam	
-								
_		<u> </u>						
-								
						-		
		· ——		-				
vpe: C=Co	ncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	I Sand Gra	ins.	² Location: Pl	L=Pore Lining, M=Matrix.
dric Soil II		,	, ,				Indica	ators for Problematic Hydric Soils ³ :
_ Histosol (Dark Surface	(S7)				cm Muck (A10) (MLRA 147)
	pedon (A2)		Polyvalue Bel		ce (S8) (M	LRA 147.		Coast Prairie Redox (A16)
Black His			Thin Dark Su					(MLRA 147, 148)
	Sulfide (A4)		Loamy Gleye			, -,	Р	Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat		,			(MLRA 136, 147)
	ck (A10) (LRR N)		X Redox Dark S	. ,	- 6)		V	'ery Shallow Dark Surface (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dar				_ 0	Other (Explain in Remarks)
_ Thick Da	rk Surface (A12)		Redox Depre	ssions (F	8)			
_ Sandy M	ucky Mineral (S1) (L	_RR N,	Iron-Mangane	ese Mass	es (F12) (L	RR N,		
MLRA	147, 148)		MLRA 136	6)				
	eyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and
_ Sandy Re	edox (S5)		Piedmont Flo	odplain S	oils (F19) (MLRA 14	8) we	etland hydrology must be present,
_ Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	127, 147	') unl	less disturbed or problematic.
estrictive L	ayer (if observed):	1						
Туре:								
Depth (inc	hes):						Hydric Soil	Present? Yes X No
emarks:	, -							
0111011101								







S





Project/Site: Buckeye Power-N		Sampling Date: 10/03/2023					
Applicant/Owner: FirstEnergy			State: OH	Sampling Point: Wetland BN-28			
Investigator(s): MJA		Section	on Townshin Range. S1		camping rount		
Landform (hillslope, terrace, etc	Toeslope	Local reli	ief (concave_convex_nor	ne). Concave	Slone (%). 1-3		
Subregion (LRR or MLRA): LR	R N, MLRA 222	81.0	044958	Detum: NAD 83			
Soil Map Unit Name: Mwg6F: I	Morristown channe	rv silty clay loam, 25 to 70	Long percent slopes, unreclain	med	N/A		
					•		
Are climatic / hydrologic conditi							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	I Circumstances" p	present? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problems	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDING	3S – Attach sif	te map showing sam	pling point location	ons, transects	, important features, etc.		
Lhuduanhutia Vanatatian Duasa		X No.					
Hydrophytic Vegetation Prese Hydric Soil Present?	nt? Yes	X No	Is the Sampled Area	Y			
Wetland Hydrology Present?		V	within a Wetland?	Yes X	No		
Remarks:	100_						
Palustrine emergent wetland i	n maintained powe	rline easement.					
J	,						
HYDROLOGY							
Wetland Hydrology Indicato	ers:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil			
Surface Water (A1)	one is required,	True Aquatic Plants (R14)		getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Ode		Drainage Pa			
Saturation (A3)		X Oxidized Rhizosphere	,	Moss Trim L			
Water Marks (B1)		Presence of Reduced	• , ,		Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur			
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren			tressed 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 No _	X Depth (inches):					
Water Table Present?		X Depth (inches):					
Saturation Present?	Yes No _	X Depth (inches):	Wetland H	Hydrology Preser	nt? Yes X No		
(includes capillary fringe) Describe Recorded Data (stre	om gougo monito	ring wall parial photos pro	vious inspections) if ave	vilable:			
Describe Recorded Data (site	am gauge, monitor	ning well, aerial priolos, pre	vious irispections), ii ava	mable.			
Remarks:							

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		Number of Dominant Species That Are OBL_FACW_or_FAC: 4 (A)
1				That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:1.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove		OBL species x 1 =
50% of total cover:	20% of	total cover:		
Sapling/Shrub Stratum (Plot size: 15				1 ACW species X Z =
1				1 AO species
2				1 ACO species
3				UPL species x 5 =0.0
4				Column Totals:110 (A)200.0 (B)
5				Prevalence Index = B/A = 1.8
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Typha angustifolia	20	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Eupatorium perfoliatum	10	No	FACW	
3. Scirpus atrovirens	20	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Dipsacus fullonum	10	No	FACU	·
5. Scirpus cyperinus	20	Yes	FACW	Definitions of Four Vegetation Strata:
6. Phalaris arundinacea	30	Yes	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8				neight.
0				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				
11	110	T-1-1-0		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 55.0		= Total Cover:		of size, and woody plants less than 3.20 it tall.
Woody Vine Stratum (Plot size: 30)	2070 01	total cover.		Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3		-		
4				Hydrophytic
5				Vegetation
F00/ - (() ()		= Total Cove		riesent: res No
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

SOIL

	Matrix			x Features		. 2	- .			
(inches)	Color (moist) 10YR 4/2	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture Silty loam		Remarks	
0 - 16	101R 4/2	95	5YR 4/6	5	Concen		Silly loam			
-										
-										
			_				-	-		
								-		
-										
							-			
<u> </u>										
vpe: C=Co	ncentration, D=Depl	etion. RM=	Reduced Matrix. MS	S=Masked	Sand Gra	ins.	² Location: F	L=Pore Lini	ng, M=Matrix.	
dric Soil Ir			,,						oblematic Hy	dric Soils ³ :
_ Histosol (Dark Surface	(S7)					410) (MLRA 1 -	
	pedon (A2)		Polyvalue Be		ce (S8) (M I	LRA 147.			Redox (A16)	,
Black His			Thin Dark Su					(MLRA 14		
	Sulfide (A4)		Loamy Gleye			, -,	F		oodplain Soils	(F19)
	Layers (A5)		X Depleted Mat	,	,			(MLRA 13		(- /
	ck (A10) (LRR N)		Redox Dark S		6)		\		/ Dark Surface	(TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)				in in Remarks)	
_ Thick Dar	rk Surface (A12)		Redox Depre	ssions (F	3)					
_ Sandy Mı	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) (L	RR N,				
MLRA	147, 148)		MLRA 130	6)						
	eyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 136	i, 122)			ydrophytic veg	
_ Sandy Re			Piedmont Flo						logy must be p	
Ctrinnad	Matrix (S6)		Red Parent M	laterial (F	21) (MLR<i>A</i>	127, 147	7) ur	less disturb	ed or problema	atic.
	ayer (if observed):									
estrictive La							Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):		_				Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):		_				Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):		_				Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
Restrictive La	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
Restrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No
estrictive La Type: Depth (incl	ayer (if observed):						Hydric Soi	I Present?	Yes X	. No





N E





S W



Soil

Proiect/Site: Buckeye Power-	ct/Site: Buckeye Power-Nottingham City/County: Harrison County Sampling						
Applicant/Owner: FirstEnergy	Sampling Point: Upland BN-26,27,28						
Investigator(s): MJA Section, Township, Range: S18 T9N R5W							
Landform (hillslone terrace et	tc.). Hillside	Local r	relief (concave, convex, nor	ne). Convex	Slope (%): 15-20		
Subregion (LRR or MLRA): LF	RR N. MLRA 222	40.20114	-81.	046398	Slope (70)		
Subregion (LRR or MLRA):	Morristown channe	Lat:25 to 7	O percent slopes upreclair	med	Datum: 11 12 00		
Soil Map Unit Name: Mwg6F:							
Are climatic / hydrologic condit							
Are Vegetation, Soil	, or Hydrology	significantly dist	urbed? Are "Normal	l Circumstances" p	oresent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally proble	matic? (If needed, e	explain any answe	ers in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showing sa	mpling point location	ons, transects	s, important features, etc.		
Lludrophytic Variation Drea	vent? Ven	No. X					
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	No X No X	Is the Sampled Area		Υ		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX		
Remarks:							
Upland point situated on stee	p vegetated slope in	n powerline easement.					
HYDROLOGY							
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (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	s (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide C		Drainage Pa	itterns (B10)		
Saturation (A3)			eres on Living Roots (C3)	Moss Trim L			
Water Marks (B1)		Presence of Reduc			Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduc		Crayfish Bur			
Drift Deposits (B3)		Thin Muck Surface			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in R	emarks)		tressed Plants (D1)		
Iron Deposits (B5) Inundation Visible on Ae	vrial Imagary (P7)				Position (D2)		
Water-Stained Leaves (I	• • • •			Shallow Aquitard (D3)			
Aquatic Fauna (B13)	39)			Microtopographic Relief (D4) FAC-Neutral Test (D5)			
Field Observations:				1710110111111	1 1001 (50)		
Surface Water Present?	Yes No	X Depth (inches):					
Water Table Present?		X Depth (inches):					
Saturation Present?		X Depth (inches):		lydrology Preser	nt? Yes NoX		
(includes capillary fringe)							
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, p	previous inspections), if ava	nilable:			
Remarks:							

	scientific names o	i piants.		Sampling Point: Upland BN-26,	,21,20
	Absolute			Dominance Test worksheet:	
Tree Stratum (Plot size: 30	_) <u>% Cove</u>	r 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		_	-	Percent of Dominant Species	
5		_	-	That Are OBL, FACW, or FAC:	(A/B)
6		_	-	Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
50% of tot	al cover: 20% (_ = Total Cov of total cover		OBL species0 x 1 =0.0	
)	or total cover		FACW species0 x 2 =0.0	
Dubus allegheniensis		Yes	FACU	FAC species 0 x 3 = 0.0	
2				FACU species100 x 4 =400.0	
3				UPL species15 x 5 =75.0	
4		<u> </u>		Column Totals:115 (A)475.0	(B)
5				11	
6		_		Prevalence Index = B/A = 4.1	
7		_		Hydrophytic Vegetation Indicators:	
8				No 1 - Rapid Test for Hydrophytic Vegetation	
9.				No 2 - Dominance Test is >50%	
<u> </u>		_ = Total Cov	er	No 3 - Prevalence Index is ≤3.0 ¹	
50% of tot	tal cover: 5.0 20%			No 4 - Morphological Adaptations ¹ (Provide support	orting
Herb Stratum (Plot size: 5	_)			data in Remarks or on a separate sheet)	
1. Daucus carota	15	No	UPL	No Problematic Hydrophytic Vegetation ¹ (Explain	1)
2. Solidago canadensis	30	Yes	FACU	4	
3. Poa pratensis	40	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic.	ust
4. Schizachyrium scoparium	20	No	FACU	Definitions of Four Vegetation Strata:	
5		_		Definitions of Four Vegetation offata.	
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cr more in diameter at breast height (DBH), regardles	
7				height.	55 UI
8				Continue/Charaka Wasada alamba ayahadiga ayina a	
9				Sapling/Shrub – Woody plants, excluding vines, I than 3 in. DBH and greater than or equal to 3.28 ft	
10				m) tall.	`
11				Herb – All herbaceous (non-woody) plants, regard	dless
	105	_ = Total Cov	er	of size, and woody plants less than 3.28 ft tall.	
	tal cover: <u>52.5</u> 20% (of total cover	21.0	Woody vine – All woody vines greater than 3.28 f	ft in
Woody Vine Stratum (Plot size: 30)			height.	
1					
2					
3					
		_		Hydrophytic	
				Venetation	
4 5		_		Vegetation	
4 5		_ = Total Cov		Present? Yes No X	

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redox	k Features	3						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>		Remar	ks	
0 - 8	10YR 4/2	100					Clay loam				
					-						
-											
-											
								-			
-											
			_								<u> </u>
1							2				
	ncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P				3
Hydric Soil I	ndicators:								roblematic	-	oils":
Histosol			Dark Surface	. ,					(A10) (MLR		
	ipedon (A2)		Polyvalue Be		. , .		148) C		e Redox (A	16)	
Black His			Thin Dark Su	, ,	•	47, 148)		(MLRA 1			
	n Sulfide (A4)		Loamy Gleye	d Matrix (I	F2)		P	iedmont Fl	oodplain So	oils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 1	36, 147)		
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		\	ery Shallov	w Dark Surf	ace (TF12)	
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		c	ther (Expla	ain in Rema	rks)	
Thick Da	rk Surface (A12)		Redox Depre	ssions (F8	3)						
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) (LRR N,					
MLRA	147, 148)		MLRA 130	6)							
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Ind	icators of h	nydrophytic	vegetation	and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	. 8) we	tland hydro	ology must l	be present,	
Stripped	Matrix (S6)		Red Parent M	faterial (F	21) (MLR	A 127, 147	') un	less disturb	oed or probl	ematic.	
Restrictive L	ayer (if observed):										
Type: Ro	ck										
Depth (inc			_				Hydric Soil	Drosont?	Yes	No	X
			_				Tiyane 3011	i resent:	163		
Remarks:											





N Soil

Project/Site: Buckeye Power-Nottingham	City/County: Harrison County	/	Sampling Date: 10/04/2023
Applicant/Owner: FirstEnergy		State: OH	_ Sampling Point: Wetland BN-29
Investigator(s): MJA	Section Township Range S		
Landform (hillslone terrace etc.). Toeslope	Local relief (concave, convex, no	one). Concave	Slone (%). 0-1
Landform (hillslope, terrace, etc.): Toeslope Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: 40.19	98422 Langui -81	.043052	Glope (70)
Soil Map Unit Name: Mwc3D: Morristown silty clay loam, 8 to	Long 25 percent slopes, reclaimed	NA// 1 '6'	
Are climatic / hydrologic conditions on the site typical for this			
Are Vegetation, Soil, or Hydrology sig			
Are Vegetation, Soil, or Hydrology na	turally problematic? (If needed,	explain any answers	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing sampling point locati	ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes X No.			
	Is the Sampled Area within a Wetland?	v X	No
	within a wettand?	res	
Remarks:			
Palustrine emergent wetland in maintained powerline easen	ient.		
HYDROLOGY			
Wetland Hydrology Indicators:		·	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all th		Surface Soil C	
	Aquatic Plants (B14)		etated Concave Surface (B8)
	gen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C3)	Drainage Patt Moss Trim Lir	
	nce of Reduced Iron (C4)		Vater Table (C2)
<u> </u>	nt Iron Reduction in Tilled Soils (C6)	Crayfish Burro	
	Muck Surface (C7)		sible on Aerial Imagery (C9)
	(Explain in Remarks)		ressed Plants (D1)
Iron Deposits (B5)		X Geomorphic F	Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquit	
Water-Stained Leaves (B9)			phic Relief (D4)
Aquatic Fauna (B13)		X FAC-Neutral	Test (D5)
Field Observations:			
Surface Water Present? Yes No _X Dept			
Water Table Present? Yes X No Dept	· · · · · · · · · · · · · · · · · · ·		Y
Saturation Present? Yes X No Dept (includes capillary fringe)	h (inches): Wetland	Hydrology Present	? Yes ^ No
Describe Recorded Data (stream gauge, monitoring well, as	erial photos, previous inspections), if av	ailable:	
Remarks:			
Remarks.			

20	Absolute	Dominant		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 Dominant
3				Species Across All Strata:1 (B)
4				Barrant of Barring of Oracina
5				Percent of Dominant Species That Are OBL, FACW, or FAC:1.0 (A/B)
6				(VB)
7				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover:				OBL species80 x 1 =80.0
Sapling/Shrub Stratum (Plot size: 15				FACW species 25 x 2 = 50.0
				FAC species0 x 3 =0.0
1				FACU species 10 x 4 = 40.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 115 (A) 170.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 1.5
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is \$3.01
		= Total Cov	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Typha angustifolia	80	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Phragmites australis	20	No	FACW	
3. Solidago canadensis	10	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Symphyotrichum novae-angliae	5	No	FACW	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	115	= Total Cov	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>57.5</u>	20% of	total cover:	23.0	W 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
		= Total Cov		riesent? res No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the depti	h needed to docum	ent the inc	dicator o	or confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features	_ 1				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0 - 2	10YR 4/2	100					Silt		
2 - 16	Gley 1 2.5/_	100					Silty clay loam	Coal parent material	
-									
									
									-
-									
-									
	·					-			
	ncentration, D=Depl	etion, RM=I	Reduced Matrix, MS	=Masked S	Sand Gra	ains.		L=Pore Lining, M=Matrix.	3
Hydric Soil I								ators for Problematic Hydric So	oils":
Histosol			Dark Surface	. ,				cm Muck (A10) (MLRA 147)	
	ipedon (A2)		Polyvalue Bel				148) C	oast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Su	rface (S9) (MLRA 1	47, 148)		(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		X Loamy Gleye	d Matrix (F2	2)		P	iedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F6))		V	ery Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface (I	F7)			Other (Explain in Remarks)	
	rk Surface (A12)		Redox Depre						
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masses	(F12) (I	_RR N,			
	147, 148)		MLRA 136						
	leyed Matrix (S4)		Umbric Surfa	•	LRA 13	6, 122)	³ Ind	icators of hydrophytic vegetation	and
	edox (S5)		Piedmont Flo					tland hydrology must be present,	
	Matrix (S6)		Red Parent M					less disturbed or problematic.	
	ayer (if observed):			,	/ (,	Í		
Type:	.,								
	hes):						Hydric Soil	Present? Yes X No _	
	nes)						Hydric Soil	Fresent? res No	
Remarks:									





N E





S W



Soil

Project/Site: Buckeye Power-Nottingham	City/County:	Harrison County		Sampling Date: 10/04/2023		
Applicant/Owner: FirstEnergy			State: OH	Sampling Date: 10/04/2023 Sampling Point: Wetland BN-30		
Investigator(s): MJA						
Landform (hillslope, terrace, etc.): Toeslope	Local relief (con	cave convex nor	ne). Concave	Slone (%): 1-3		
Subragion (LRB or MLRA). LRR N, MLRA 222 Lat. 40	.198162	Long81.0	042558			
Subregion (LRR or MLRA): LRR N, MLRA 222 Lat: 40 Soil Map Unit Name: Mwc3D: Morristown silty clay loam, 8	to 25 percent slopes, re-	Long claimed	NDA/L-1'C-	Datum		
Are climatic / hydrologic conditions on the site typical for th						
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal	Circumstances" p	resent? Yes No		
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, e	explain any answer	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing sampling	point location	ns, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes X	do					
Hydric Soil Present? Yes X	10 1110	Sampled Area	Yes_X	M -		
	No	n a Wetland?	res	No		
Remarks:						
Palustrine emergent wetland in maintained powerline ease	ement. Wetland compose	ed of multiple hydr	ologically connect	ed polygons.		
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is required; check all	that apply)		Surface Soil (Cracks (B6)		
Surface Water (A1) Tru	e Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)			
X High Water Table (A2) Hyd	drogen Sulfide Odor (C1)		Drainage Pat	terns (B10)		
X Saturation (A3) Oxi	dized Rhizospheres on L	iving Roots (C3)	Moss Trim Li	nes (B16)		
Water Marks (B1) Pre	sence of Reduced Iron (0	C4)	Dry-Season \	Water Table (C2)		
Sediment Deposits (B2) Rec	cent Iron Reduction in Till	ed Soils (C6)	Crayfish Burr	ows (C8)		
Drift Deposits (B3) Thi	n Muck Surface (C7)		Saturation Vis	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Oth	er (Explain in Remarks)		Stunted or St	tressed 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 De						
Water Table Present? Yes X No De	epth (inches):10					
Saturation Present? Yes X No De	epth (inches):6	Wetland H	lydrology Presen	t? Yes X No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous ir	spections), if ava	ilable:			
	aonai priotos, proviose ii	,				
Remarks:						

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

____)

Sapling/Shrub Stratum (Plot size: 15)

% Cover Species? Status

____ = Total Cover

No

No _

No___

Yes __

Yes

143 = Total Cover

FACW

FACU

FACW

FACW

OBL

OBL

5

15

3

25

50

30

50% of total cover: 71.5 20% of total cover: 28.6

= Total Cover
50% of total cover: 20% of total cover:

15____

50% of total cover: _____ 20% of total cover: ____

50% of total cover: _____ 20% of total cover:

Tree Stratum (Plot size: 30

Herb Stratum (Plot size: 5

1. Eupatorium perfoliatum

4. Phalaris arundinacea

6. Schoenoplectus tabernaemontani

2. Solidago canadensis

3. Verbena hastata

7. Typha angustifolia

5. Carex lurida

9	Sampling	Point:	Wetland E	3N-30		
Dominance Test						
Number of Domir That Are OBL, FA			2	(A)		
Total Number of Species Across A			2	(B)		
Percent of Domir That Are OBL, FA			1.0	(A/B)		
Prevalence Inde	x workshe	et:				
Total % Cove	ar of	M	ultiply by:			
OBL species	95	x 1 =	95.0			
· -	33	-	66.0	-		
FACW species _	0	_ x 2 =		-		
FAC species	15	_ x 3 =	60.0	_		
FACU species _	0	_ x 4 =	0.0	-		
UPL species _		_ x 5 =		_		
Column Totals: _	143	_ (A)	221.0	_ (B)		
Prevalence	Index = B	/A = 1.5	5	_		
Hydrophytic Ve	getation In	dicators	3:			
Yes 1 - Rapid Te						
Yes 2 - Dominano	•		Ü			
Yes 3 - Prevalence						
No 4 - Morpholo			Provide sun	norting		
	-		arate sheet)	porting		
No Problematic			,	in)		
i iobiematic	riyaropriyti	c vegeta	ilion (Expia	"",		
¹ Indicators of hyd				nust		
Definitions of Fo	our Vegeta	tion Str	ata:			
				am\ = ::		
Tree – Woody pla more in diameter height.						
	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.					
Herb – All herbad				rdless		
Woody vine – Al height.	l woody vir	ies great	ter than 3.28	Ift in		
Hydrophytic Vegetation Present?	Yes X	N	lo			

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

Woody Vine Stratum (Plot size: 30

Profile Desci	ription: (Describe t	o the dept	h needed to docum	ent the i	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix		Redox	Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 4	10YR 3/2	80	5YR 4/6	5	Concen	PL,M	Clay loam	
0 - 4	10YR 2/1	15					Clay loam	Coal parent material
4 - 16	10YR 3/2	50	5YR 4/6	10	Concen	PL,M	Clay loam	
4 - 16	10YR 2/1	40					Clay loam	Clay parent material
-			_					
								
¹ Type: C=Co	ncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location: PL	
Hydric Soil II	ndicators:							tors for Problematic Hydric Soils ³ :
Histosol ((A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
Histic Ep	ipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) (M I	LRA 147,	148) Co	past Prairie Redox (A16)
Black His			Thin Dark Sur			17, 148)		(MLRA 147, 148)
	Sulfide (A4)		X Loamy Gleyed		F2)			edmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mati					(MLRA 136, 147)
	ck (A10) (LRR N)	(4.4.4)	X Redox Dark S	•	,			ery Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dark				Ot	ther (Explain in Remarks)
	rk Surface (A12)	DD N	Redox Depres			DD N		
	ucky Mineral (S1) (L 147, 148)	KK N,	Iron-Mangane MLRA 136		es (F12) (L	KK N,		
	eyed Matrix (S4)		Umbric Surfac	•	MI DA 136	: 122\	³ Indi	cators of hydrophytic vegetation and
	edox (S5)		Piedmont Floo					tland hydrology must be present,
	Matrix (S6)		Red Parent M					ess disturbed or problematic.
	ayer (if observed):		1100 1 01011111	atoriai (i		,	1	ood diotarboa or problemane.
Type:	, , , , , , , , , , , , , , , , , , , ,							
	hes):						Hydric Soil	Present? Yes X No
Remarks:	, -		<u></u>				1 -	
rtomanto.								





N E





S W



Soil

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Buckeye Power-Nottingham	City/C	ounty: Harrison County	;	Sampling Date: 10/04/2023
Applicant/Owner: FirstEnergy		,	State: OH	Sampling Point: Wetland BN-31
Investigator(s): MJA	Section	on Township Range. S18		_ •apg . •
Landform (hillslope, terrace, etc.): Lowland	Local reli	ef (concave, convex, non-	e). Concave	Slone (%). 1-10
Subragion (LBB or MLBA), LRR N, MLRA 222	40.197464	-81.0	41645	NAD 83
Subregion (LRR or MLRA): LRR N, MLRA 222 Soil Map Unit Name: Mwc3D: Morristown silty cl	Lat:av loam_8 to 25 percent slo	Long: nes_reclaimed		Datum:
Are climatic / hydrologic conditions on the site type				
Are Vegetation, Soil, or Hydrolog	y significantly distur	bed? Are "Normal	Circumstances" pro	esent? Yes X No
Are Vegetation, Soil, or Hydrolog	y naturally problema	atic? (If needed, ex	xplain any answers	s in Remarks.)
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point location	ns, transects,	important features, etc.
Hadron to the Venetation Beauty 2	X N			
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes	X No	Is the Sampled Area	~	
Wetland Hydrology Present? Yes _		within a Wetland?	Yes X	No
Remarks:				
Palustrine emergent wetland in maintained pow	enine easement. Wetland Co	omposed of Malliple Hydro	ologically conflecte	d/ecologically similar polygons.
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)		Surface Soil C	cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vege	etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Ode		Drainage Patte	erns (B10)
X Saturation (A3)	X Oxidized Rhizosphere	• , ,	Moss Trim Lin	
Water Marks (B1)	Presence of Reduced	I Iron (C4)	Dry-Season W	/ater Table (C2)
Sediment Deposits (B2)	Recent Iron Reductio		Crayfish Burro	
Drift Deposits (B3)	Thin Muck Surface (C			ible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Ren			essed Plants (D1)
Iron Deposits (B5)			X Geomorphic P	` ,
Inundation Visible on Aerial Imagery (B7)			Shallow Aquita	
Water-Stained Leaves (B9)			X FAC-Neutral T	phic Relief (D4)
Aquatic Fauna (B13)			A FAC-Neutral I	est (D5)
Field Observations: Surface Water Present? Yes No	X Depth (inches):			
	X Depth (inches):			
	Depth (inches):		ydrology Present	? Yes ^X No
(includes capillary fringe)	Depth (inches):	wetiand ny	yarology Present	? res No
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, pre	vious inspections), if avail	lable:	
Remarks:				

Sampling Point: Wetland BN-31

1.	Number of Dominant Species That Are OBL, FACW, or FAC:3
2	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: 1.0 A/B
3.	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: OBL species 60 X 1 = 60.0 FACW species 1.55 X 2 = 310.0 FAC species 0 X 3 = 0.0 FACU species 18 X 4 = 72.0 UPL species 1 X 5 = 5.0 Column Totals: 234 (A) Prevalence Index = B/A = 1.9 Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
3.	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: OBL species 60 X 1 = 60.0 FACW species 1.55 X 2 = 310.0 FAC species 0 X 3 = 0.0 FACU species 18 X 4 = 72.0 UPL species 1 X 5 = 5.0 Column Totals: 234 (A) Prevalence Index = B/A = 1.9 Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5	That Are OBL, FACW, or FAC: 1.0 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 60 x 1 = 60.0 FACW species 155 x 2 = 310.0 FAC species 0 x 3 = 0.0 FACU species 18 x 4 = 72.0 UPL species 1 x 5 = 5.0 Column Totals: 234 (A) 447.0 (B) Prevalence Index = B/A = 1.9 Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5	That Are OBL, FACW, or FAC: 1.0 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 60 x 1 = 60.0 FACW species 155 x 2 = 310.0 FAC species 0 x 3 = 0.0 FACU species 18 x 4 = 72.0 UPL species 1 x 5 = 5.0 Column Totals: 234 (A) 447.0 (B) Prevalence Index = B/A = 1.9 Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
6	Prevalence Index worksheet: Total % Cover of: OBL species 60 x 1 = 60.0 FACW species 155 x 2 = 310.0 FAC species 0 x 3 = 0.0 FACU species 18 x 4 = 72.0 UPL species 1 x 5 = 5.0 Column Totals: 234 (A) 447.0 (B) Prevalence Index = B/A = 1.9 Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
7	Total % Cover of:Multiply by:OBL species 60 x 1 = 60.0 FACW species 155 x 2 = 310.0 FAC species 0 x 3 = 0.0 FACU species 18 x 4 = 72.0 UPL species 1 x 5 = 5.0 Column Totals: 234 (A) 447.0 Prevalence Index = $B/A = \frac{1.9}{40.0}$ Hydrophytic Vegetation Indicators:Yes1 - Rapid Test for Hydrophytic VegetationYes2 - Dominance Test is >50%Yes3 - Prevalence Index is ≤3.0¹No4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum (Plot size: 15 Sapling/Shrub Stratum (Plot size: 5 Sapling/Shrub Shrub S	OBL species 60 $\times 1 = 60.0$ FACW species 155 $\times 2 = 310.0$ FAC species 0 $\times 3 = 0.0$ FACU species 18 $\times 4 = 72.0$ UPL species 1 $\times 5 = 5.0$ Column Totals: 234 (A) 447.0 (B) Prevalence Index $= B/A = 1.9$ Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is $\le 3.0^1$ No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum (Plot size: 15 1. Elaeagnus angustifolia 3 No FACU F	FACW species $\frac{155}{0}$ x 2 = $\frac{310.0}{0}$ FAC species $\frac{0}{0}$ x 3 = $\frac{0.0}{0}$ FACU species $\frac{18}{18}$ x 4 = $\frac{72.0}{0}$ UPL species $\frac{1}{0}$ x 5 = $\frac{5.0}{0}$ Column Totals: $\frac{234}{0}$ (A) $\frac{447.0}{0}$ (B) Prevalence Index = B/A = $\frac{1.9}{0}$ Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is $\leq 3.0^{1}$ No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum (Plot size: 15 1. Elaeagnus angustifolia 3 No FACU FACU FACU Salaagnus angustifolia 3 No FACU FACU FACU Salaagnus angustifolia 3 No Salaagnus angustifolia No Salaagnus angustifolia No Salaagnus angustifolia Salaagnus angustifolia	FAC species 0 $x 3 = 0.0$ FACU species 18 $x 4 = 72.0$ UPL species 1 $x 5 = 5.0$ Column Totals: 234 (A) 447.0 (B) Prevalence Index $= B/A = 1.9$ Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is $\le 3.0^1$ No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Elaeagnus angustifolia 3 No FACU FACU	FAC species 0 $x 3 = 0.0$ FACU species 18 $x 4 = 72.0$ UPL species 1 $x 5 = 5.0$ Column Totals: 234 (A) 447.0 (B) Prevalence Index $= B/A = 1.9$ Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is $\le 3.0^1$ No 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2.	FACU species 18 $x 4 = 72.0$ UPL species 1 $x 5 = 5.0$ Column Totals: 234 (A) 447.0 (B) Prevalence Index $= B/A = 1.9$ Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is $\le 3.0^1$ No 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
No	UPL species $\frac{1}{234}$ $x = \frac{5.0}{447.0}$ (B) Prevalence Index = B/A = $\frac{1.9}{447.0}$ Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is $\leq 3.0^1$ No 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
4	Column Totals:234(A)447.0(B) Prevalence Index = B/A =1.9 Hydrophytic Vegetation Indicators: Yes
5	Prevalence Index = B/A = 1.9 Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
6	Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
7	Hydrophytic Vegetation Indicators: Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
7.	 Yes 1 - Rapid Test for Hydrophytic Vegetation Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8	Yes 2 - Dominance Test is >50% Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9	 Yes 3 - Prevalence Index is ≤3.0¹ No 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Solid total coveries 1.5 Solid total co	No 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5) 1. Typha angustifolia 35 No OBL 2. Eupatorium perfoliatum 40 Yes FACW 3. Carex lurida 25 No OBL 4. Poa pratensis 15 No FACU 5. Phragmites australis 45 Yes FACW 7. Symphyotrichum novae-angliae 10 No FACW 8. Daucus carota 1 No UPL 9.	data in Remarks or on a separate sheet)
1. Typha angustifolia 35	,
1. Typha angustifolia 35	
3. Carex lurida 25	No Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex lurida 25	
4. Poa pratensis 15 No FACU 5. Phragmites australis 45 Yes FACW 6. Juncus effusus 60 Yes FACW 7. Symphyotrichum novae-angliae 10 No FACW 8. Daucus carota 1 No UPL 9. 5 tt 10. 10. 10. 10. 11. 231 = Total Cover 10.	Indicators of hydric soil and wetland hydrology must
5. Phragmites australis 45 Yes FACW 6. Juncus effusus 60 Yes FACW 7. Symphyotrichum novae-angliae 10 No FACW 8. Daucus carota 1 No UPL 9. 10. T 11. 231 = Total Cover	be present, unless disturbed or problematic.
6. Juncus effusus 7. Symphyotrichum novae-angliae 8. Daucus carota 1 No UPL 9.	Definitions of Four Vegetation Strata:
7. Symphyotrichum novae-angliae 8. Daucus carota 1	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
8. Daucus carota 1 No UPL 9. 10. 11. 231 = Total Cover	more in diameter at breast height (DBH), regardless of
9	height.
9	Sapling/Shrub – Woody plants, excluding vines, less
11 H	than 3 in. DBH and greater than or equal to 3.28 ft (1
231 = Total Cover	m) tall.
= Total Cover 0	Herb – All herbaceous (non-woody) plants, regardless
50% of total covery 115.5 20% of total covery 46.2	of size, and woody plants less than 3.28 ft tall.
50% of total cover. 110.0 20% of total cover. 40.2	Manada da da a Allamanda da a a a a a a a a a a a a a a a a
	Woody vine – All woody vines greater than 3.28 ft in height.
1	noight.
2	
3	
	Hydrophytic
D.	Vegetation Present? Yes ^X No
= Total Cover	
50% of total cover: 20% of total cover:	Present? Yes X No
Remarks: (Include photo numbers here or on a separate sheet.)	riesent? Tes NO

Sampling Point: Wetland BN-31

Depth	Matrix	%		Feature		Loc ²	Tautuna	Demonto
inches) 0 - 16	Color (moist) Gley 1 3/_	75	Color (moist) 7.5YR 4/6	<u>%</u> 5	Type ¹ Concen	PL	Texture Silty clay loam	Remarks
		· ——	7.511(4/0		OUTCOM			21
0 - 16	10YR 2/1	20					Silty clay loam	Coal parent material
-								
-								
								-
								-
-								
-								
-								
ype: C=Co	ncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	d Sand Gra	ins.	² Location: Pl	L=Pore Lining, M=Matrix.
ydric Soil I	ndicators:						Indica	ators for Problematic Hydric Soils ³ :
_ Histosol			Dark Surface					cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Bel				148) C	coast Prairie Redox (A16)
_ Black His			Thin Dark Sur			17, 148)		(MLRA 147, 148)
	n Sulfide (A4)		X Loamy Gleye		F2)		P	iedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat		>		.,	(MLRA 136, 147)
	ck (A10) (LRR N)	o (A11)	Redox Dark S	•	,			ery Shallow Dark Surface (TF12)
	Below Dark Surface rk Surface (A12)	e (A11)	Depleted Darl Redox Depres				_ 0	other (Explain in Remarks)
	ucky Mineral (S1) (L	RR N	Iron-Mangane			RR N		
	. 147, 148)	-IXIX IN,	MLRA 136		63 (1 12 <i>)</i> (2	ixix i v ,		
	leyed Matrix (S4)		Umbric Surfac	-	MLRA 136	5. 122)	³ Indi	icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flor					etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	ayer (if observed):					<u> </u>	1	· ·
Type:								
Depth (inc	hes):						Hydric Soil	Present? Yes X No
emarks:							, , , , , , , ,	
omano.								





N E





S W



Soil

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Buckeye Power-	Nottingham	Citv/C	County: Harrison County		Sampling Date: 10/04/2023
Applicant/Owner: FirstEnergy				State: OH	Sampling Point: Upland BN-29,30,31
		Section	on Township Range. S1		Oampling Folia.
Landform (hillslone terrace et	tc.). Shoulder slope	L ocal rel	ief (concave, convex, nor	Convex	Slope (%): 10-15
Subregion (LRR or MLRA): LF	RR N. MLRA 222	40.19842	-81.0	043054	Slope (70)
Subregion (LRR or MLRA):	Morristown silty clay	Lat: 8 to 25 percent slo	Long:		Datum: W. D
Soil Map Unit Name: Mwc3D:					
Are climatic / hydrologic condit					
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	oresent? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)
SUMMARY OF FINDIN	GS – Attach sit	te map showing san	npling point location	ons, transects	s, important features, etc.
Hadaaahada Waastadaa Baas		N. X			
Hydrophytic Vegetation Pres Hydric Soil Present?	ent? Yes	No X No X	Is the Sampled Area		Υ
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	NoX
Remarks:	100				
Upland data point in maintain	ed powerline easem	nent.			
HYDROLOGY					
Wetland Hydrology Indicat	ors:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum		check all that apply)		Surface Soil	
Surface Water (A1)	or one required, c	True Aquatic Plants (B14)		getated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa	
Saturation (A3)			es on Living Roots (C3)	Moss Trim L	
Water Marks (B1)		Presence of Reduced	-		Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (0	C7)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Ae				Shallow Aqu	
Water-Stained Leaves (I	39)				aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	Test (D5)
Field Observations:		X 5 4 6 1 1			
Surface Water Present?		X Depth (inches):			
Water Table Present?		X Depth (inches):			ota Van Na X
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland H	lydrology Presei	nt? Yes NoX
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, pre	evious inspections), if ava	ilable:	
Describe					
Remarks:					

Cover	Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species
			That Are OBL, FACW, or FAC:0 (A) Total Number of Dominant Species Across All Strata:1 (B)
			Total Number of Dominant Species Across All Strata: 1 (B)
			Species Across All Strata:1 (B)
			Opedies Across All Ottata.
			Percent of Dominant Species
			I I CICCIII OI DOITIII AITI ODECICS
			That Are OBL, FACW, or FAC: 0.0 (A/B)
			Prevalence Index worksheet:
=	= Total Cove	er	Total % Cover of: Multiply by:
20% of	total cover:		OBL species 0 x 1 = 0.0
			FACW species x 2 = 0.0
			FAC species 0 x 3 = 0.0
			FACU species100 x 4 =400.0
			UPL species15 x 5 =75.0
			Column Totals:115 (A)475.0 (B)
			D 1 1 2 2 4 1
			Prevalence Index = B/A = 4.1
			Hydrophytic Vegetation Indicators:
			No 1 - Rapid Test for Hydrophytic Vegetation
			No 2 - Dominance Test is >50%
	Tatal Caus		No 3 - Prevalence Index is ≤3.01
			No 4 - Morphological Adaptations (Provide supporting
.0 /6 01	iolai covei		data in Remarks or on a separate sheet)
70	Vas	FACU	No Problematic Hydrophytic Vegetation ¹ (Explain)
			¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
			Definitions of Four Vegetation Strata:
		FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
			more in diameter at breast height (DBH), regardless of
			height.
			Sapling/Shrub – Woody plants, excluding vines, less
			than 3 in. DBH and greater than or equal to 3.28 ft (1
			m) tall.
			Herb – All herbaceous (non-woody) plants, regardless
15 =	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
:0% of	total cover:	23.0	Weedy vine All weedy vines greater than 2.29 ft in
			Woody vine – All woody vines greater than 3.28 ft in height.
			Hydrophytic Vegetation
			Present? Yes No X
	total cover:_		
. J / U UI	CULUI OUVUI.		
	======================================	= Total Cover:	= Total Cover 20% of total cover: 270

Sampling Point: Upland BN-29,30,31

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	of indicate	ors.)		
Depth	Matrix		Redox	k Features	3						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remark	(S	
0 - 12	10YR 3/2	100					Clay loam		Some g	ravel	
-											
			-								
-											
_											
											 ,
								-			
-											
					-						
¹ Type: C=Co	ncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	² Location: Pl	L=Pore Lin	ing, M=Matı	rix.	
Hydric Soil I		-							roblematic		ils³:
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLR	A 147)	
	ipedon (A2)		Polyvalue Be		ce (S8) (N	ILRA 147,			e Redox (A1		
Black His			Thin Dark Su				, <u>—</u>	(MLRA 14		*	
	Sulfide (A4)		Loamy Gleye	d Matrix (I	F2)		P		oodplain So	ils (F19)	
Stratified	Layers (A5)		Depleted Mat					(MLRA 13	36, 147)		
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		V	ery Shallov	w Dark Surfa	ace (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		0	ther (Expla	ain in Remai	rks)	
Thick Da	rk Surface (A12)		Redox Depre								
	ucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) (LRR N,					
	147, 148)		MLRA 136	•							
	eyed Matrix (S4)		Umbric Surfa						ydrophytic v	-	
	edox (S5)		Piedmont Flo						ology must b		
	Matrix (S6)		Red Parent M	faterial (F	21) (MLR	A 127, 147	') un	less disturb	ed or proble	ematic.	
	ayer (if observed):										
Type: Roo			_								
Depth (inc	hes): <u>12.0</u>						Hydric Soil	Present?	Yes	No	Х
Remarks:											





W

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Buckeye Power-Nottingham	City/County: H	larrison County	Sampling Date: 10/04/2023
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland BN-32
Investigator(s): MJA	Section, Towns		<u> </u>
Landform (hillslope, terrace, etc.): Lowland			Slone (%). 1-2
Subregion (LRR or MLRA): LRR N, MLRA 222 La	40.193919	-81.036365	Olope (70)
Soil Map Unit Name: Mwc3D: Morristown silty clay loa	t:am_8 to 25 percent slopes recla	Long:	Datum:
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site r	nap showing sampling լ	point locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes X	No Is the S		
Hydric Soil Present? Yes X	N. IS the S	Sampled Area	
Wetland Hydrology Present? Yes X	No within a	a Wetland? Yes X	No
Remarks:			
Palustrine emergent wetland in maintained powerline	e easement. An intermittent strea	am flows westward through wetle	and.
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; chec	ck all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vo	egetated Concave Surface (B8)
High Water Table (A2)	_ Hydrogen Sulfide Odor (C1)	Drainage P	atterns (B10)
<u> </u>	Oxidized Rhizospheres on Livi	• , ,	
	Presence of Reduced Iron (C4		n Water Table (C2)
	Recent Iron Reduction in Tilled		
	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)
	Other (Explain in Remarks)		Stressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		X Geomorphi Shallow Aq	
Water-Stained Leaves (B9)			raphic Relief (D4)
Aquatic Fauna (B13)		X FAC-Neutra	
Field Observations:		<u> </u>	
	Depth (inches):		
	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	ent? Yes ^X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring			
Describe Recorded Data (stream gauge, monitoring	well, aeriai priotos, previous iris	pections), ii available.	
Remarks:			

Sampling Point: Wetland BN-32

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30		Species?		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				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
50% of total cover:		= Total Cove		OBL species 80 x 1 = 80.0
Sapling/Shrub Stratum (Plot size: 15)	20% 01	lotal cover.		FACW species 85 x 2 = 170.0
				FAC species 15 x 3 = 45.0
1				FACU species0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 180 (A) 295.0 (B)
4				,,,,,,,,,,,,,,
5				Prevalence Index = B/A = 1.6
6				Hydrophytic Vegetation Indicators:
7				Yes 1 - Rapid Test for Hydrophytic Vegetation
8				Yes 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
50% of total cover:		= Total Cover		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	2070 01	total cover.		data in Remarks or on a separate sheet)
1. Typha angustifolia	60	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Eupatorium perfoliatum	10	No	FACW	
3. Epilobium coloratum	35	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Salix nigra	20	No	OBL	be present, unless disturbed or problematic.
5. Euthamia graminifolia	15	No	FAC	Definitions of Four Vegetation Strata:
6. Juncus effusus	40	Yes	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8				
9.				Sapling/Shrub – Woody plants, excluding vines, less 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
	180	= Total Cove	 er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 90.0		total cover:		Was deades Allowed by Section 1990 (1)
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				
2				
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 sl	heet.)			

/! \	Matrix	0/	Redo	x Features	S1	1 2	Tour		D	
(inches) 0 - 10	Color (moist) 10YR 4/2	90	Color (moist) 5YR 4/6	<u>%</u> 10	Type ¹ Concen	Loc ²	Texture Clay loam		Remarks Some grav	
0 - 10	1011 4/2		J1K 4/0		Concen	<u></u>	Clay loaili		Some grav	C I
-										
-										
-										
							-			
										
-										
_										
	ncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ns.			ng, M=Matrix.	
ydric Soil I	ndicators:						Indica	ators for P	oblematic Hy	dric Soils ³ :
_ Histosol	. ,		Dark Surface						A10) (MLRA 1 4	47)
	ipedon (A2)		Polyvalue Be		. , .		148) C		Redox (A16)	
_ Black His	, ,		Thin Dark Su			17, 148)	_	(MLRA 14		
	Sulfide (A4)		Loamy Gleye		F2)		P		oodplain Soils ((F19)
	Layers (A5) ck (A10) (LRR N)		X Depleted Mat		.c)			(MLRA 13	6, 147) / Dark Surface	/TE40\
	Below Dark Surface	(Δ11)	Redox Dark S Depleted Dar						in in Remarks)	
	rk Surface (A12)	(11)	Redox Depre		. ,		~	rifici (Expla	iii iii Keiriarks)	
	ucky Mineral (S1) (L	RR N.	Iron-Mangan			RR N.				
	147, 148)	,	MLRA 13		, ,	,				
	leyed Matrix (S4)		Umbric Surfa	•	MLRA 136	, 122)	³ Ind	icators of h	ydrophytic veg	etation and
_ Sandy R	edox (S5)		Piedmont Flo				18) we	tland hydro	logy must be p	resent,
_ Stripped	Matrix (S6)		Red Parent N	/laterial (F	21) (MLRA	127, 147	7) un	less disturb	ed or problema	atic.
estrictive L	ayer (if observed):									
Type: Roo										
Type: Roo			<u> </u>				Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .		<u> </u>				Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No
Type: Roo Depth (inc	ck .						Hydric Soil	Present?	Yes X	No





N E





S W



Soil

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Buckeye Power-Nottingham	Citv/C	ounty: Harrison County	Sampling Date: 10/04/2023
Applicant/Owner: FirstEnergy		State	e: OH Sampling Point: Wetland BN-33
Investigator(s): MJA	Section		
Landform (hillslope, terrace, etc.): Depression	Local reli	ef (concave, convex, none): Co	oncave Slope (%): 1-3
Subregion (LRR or MLRA): LRR N, MLRA 222	Lat. 40.197754	Long: -81.033487	Datum: NAD 83
Soil Map Unit Name: Mwc3D: Morristown silty clar	y loam, 8 to 25 percent slop	pes, reclaimed	M/I electification: N/A
•		·	· · · · · · · · · · · · · · · · · · ·
Are climatic / hydrologic conditions on the site typic			
Are Vegetation, Soil X, or Hydrology	significantly disturb	oed? Are "Normal Circum	nstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problema	tic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	e map showing sam	pling point locations, tr	ansects, important features, etc.
Hydrophytic Vegetation Present? Yes	X _{No}		
Hydric Soil Present? Yes	X No	Is the Sampled Area within a Wetland?	Yes ^X No
Wetland Hydrology Present? Yes		within a wettallu:	165 NO
Remarks:			
Palustrine emergent wetland in maintained powe	rline easement. Abundant o	old, overgrown tire ruts.	
HYDROLOGY			
Wetland Hydrology Indicators:		Secon	dary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; of	check all that apply)	Sı	urface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (I		parsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odd		rainage Patterns (B10)
Saturation (A3)	X Oxidized Rhizosphere		oss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced		ry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction		rayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C		aturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Ren		tunted or Stressed Plants (D1)
Iron Deposits (B5)			eomorphic Position (D2)
X Inundation Visible on Aerial Imagery (B7)			hallow Aquitard (D3)
Water-Stained Leaves (B9)			icrotopographic Relief (D4)
Aquatic Fauna (B13)		F/	AC-Neutral Test (D5)
Field Observations:	X Death (Seekee)		
	X Depth (inches):		
	X Depth (inches):		- X
Saturation Present? Yes No _ (includes capillary fringe)	X Depth (inches):	Wetland Hydrolo	ogy Present? Yes X No
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, pre	vious inspections), if available:	
Damarka			
Remarks:			

Sampling Point: Wetland BN-33

20	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 Dominant
3				Species Across All Strata: 2 (B)
4				D
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.5 (A/B)
6				That / 110 OBE, 1 / 10 W, 01 1 / 10.
7				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:				OBL species90 x 1 =90.0
Sapling/Shrub Stratum (Plot size: 15)			-	FACW species15 x 2 =30.0
				FAC species0 x 3 =0.0
1				FACU species 30 x 4 = 120.0
2				UPL species 0 x 5 = 0.0
3				Column Totals: 135 (A) 240.0 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 1.8
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				Yes 3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cove	er	
50% of total cover:	20% of	total cover:		No 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Carex vulpinoidea	55	Yes	OBL	No Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carex frankii	20	No	OBL	
3. Poa pratensis	30	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
4 Scirpus atrovirens	15	No	OBL	be present, unless disturbed or problematic.
- luncus offusus	15	No	FACW	Definitions of Four Vegetation Strata:
<u> </u>				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				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
	135	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 67.5	20% of	total cover:	27.0	Was divides All was divided an acceptant have 2.00 ft in
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
			-	
3				
4				Hydrophytic
5				Vegetation Present? Yes X No
		= Total Cove		riesent: resNo
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

inches)	Matrix	%		x Features		Loc ²	Touture		Damedia	
	Color (moist)		Color (moist)		Type ¹		Texture		Remarks	-1
- 6	10YR 4/2	95	5YR 4/6	5	Concen	PL_	Clay loam		Some grav	el
<u>-</u> .										
-										
_										
<u>-</u> .										
-										
-										
 .										
<u>-</u> .										
-										
ne: C=Cor	ncentration, D=Depl	etion. RM=	Reduced Matrix. M	S=Masked	Sand Gra	ins.	² I ocation: Pl	=Pore Lini	ng, M=Matrix.	
dric Soil In		011011, 11111	- roddood marix, ivi	<u>U-Macroa</u>	Cana Ora				oblematic Hy	dric Soils ³ :
Histosol (Dark Surface	e (S7)					410) (MLRA 1	
	pedon (A2)		Polyvalue Be		ce (S8) (M	LRA 147.			Redox (A16)	,
Black His			Thin Dark St				0	(MLRA 14		
	Sulfide (A4)		Loamy Gley	. ,	•	, ,	Р		odplain Soils	(F19)
	Layers (A5)		X Depleted Ma		,			(MLRA 13		(- /
	ck (A10) (LRR N)		Redox Dark	. ,	·6)		V		/ Dark Surface	(TF12)
	Below Dark Surface	(A11)	Depleted Da					•	in in Remarks)	. ,
Thick Dar	rk Surface (A12)		Redox Depre	essions (F	8)					
Sandy Mu	ucky Mineral (S1) (L	RR N,	Iron-Mangar	ese Masse	es (F12) (L	RR N,				
MLRA	147, 148)		MLRA 13	36)						
_ Sandy Gle	eyed Matrix (S4)		Umbric Surfa	ace (F13) (MLRA 136	5, 122)	³ Ind	icators of h	ydrophytic veg	etation and
_ Sandy Re	edox (S5)		Piedmont Flo	oodplain S	oils (F19) (MLRA 14	8) we	tland hydro	logy must be p	oresent,
_ Stripped N	Matrix (S6)		Red Parent I	Material (F	21) (MLR	127, 147	') unl	ess disturb	ed or problema	atic.
	ayer (if observed):									
Type: Roc	k and compacted cl	ay								
	has): 6.0						Hydric Soil	Present?	Yes X	No
Depth (inch	iles). <u> </u>									
	nes)									
	iles)									
	nes). <u></u>									
	iles). <u></u>									
	165).									
	165).									
	ies).									
	ies).									
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Depth (inchemarks:	ies). ——									
	ies). ——									
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	ies). ——									





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WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Buckeye Power-Nottingham	City/County: Harris	son County	Sampling Date: 10/04/2023	
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Upland BN-32,33	
Investigator(s): MJA	Section Township			
Landform (hillslope, terrace, etc.): Hillside			Slope (%). 5-10	
Subregion (LRR or MLRA): LRR N, MLRA 222	Local relief (concave,	-81.036382	Slope (%) NAD 83	
Subregion (LRR or MLRA):	Lat:	Long:	Datum: 18 15 55	
Soil Map Unit Name: Mwc3D: Morristown silty clay				
Are climatic / hydrologic conditions on the site typic				
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No	
Are Vegetation, Soil, or Hydrology				
SUMMARY OF FINDINGS – Attach sit	e map showing sampling poi	nt locations, transect	s, important features, etc.	
Hydrophytia Vagatation Propent?	No. X			
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	X No X Is the Sam within a Wo		X	
Wetland Hydrology Present? Yes	No X within a We	etland? Yes	NoX	
Remarks:				
Upland data point in maintained powerline easem	ient.			
HYDROLOGY				
Wetland Hydrology Indicators:		<u> </u>	ators (minimum of two required)	
Primary Indicators (minimum of one is required; of		Surface Soi		
Surface Water (A1)	True Aquatic Plants (B14)		egetated Concave Surface (B8)	
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Pa		
Saturation (A3)	Oxidized Rhizospheres on Living F			
Water Marks (B1)	Presence of Reduced Iron (C4)		Water Table (C2)	
Sediment Deposits (B2) Drift Deposits (B3)	Recent Iron Reduction in Tilled SoThin Muck Surface (C7)		/isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stressed Plants (D1)	
Iron Deposits (B5)	Guior (Explain in Nomano)		Position (D2)	
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu		
Water-Stained Leaves (B9)			raphic Relief (D4)	
Aquatic Fauna (B13)		FAC-Neutra	Il Test (D5)	
Field Observations:				
	X Depth (inches):			
	X Depth (inches):			
	X Depth (inches):	Wetland Hydrology Prese	nt? Yes NoX	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspec	tions), if available:		
, , ,				
Remarks:				

VEGETATION (Four Strata) – Use scientific names of plants

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: Upland BN-32,33
20	Absolute	Dominant I		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Descent of Deminent Charles
5		. <u></u>		Percent of Dominant Species That Are OBL, FACW, or FAC: 0.5 (A/B)
6				
7				Prevalence Index worksheet:
		= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:				OBL species 0 x 1 = 0.0
Sapling/Shrub Stratum (Plot size: 15)		_		FACW species0 x 2 =0.0
1				FAC species35 x 3 =105.0
2				FACU species105 x 4 =420.0
				UPL species 10 x 5 = 50.0
3				Column Totals: 150 (A) 575.0 (B)
4				(-)
5				Prevalence Index = B/A = 3.8
6				Hydrophytic Vegetation Indicators:
7				No 1 - Rapid Test for Hydrophytic Vegetation
8				No 2 - Dominance Test is >50%
9				No 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		No 4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:_		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				No Problematic Hydrophytic Vegetation (Explain)
1. Lotus corniculatus	70	Yes	FACU	Problematic Hydrophytic Vegetation (Explain)
2. Solidago canadensis	20	No	FACU	
3. Symphyotrichum pilosum	35	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Daucus carota	10	No	UPL	Definitions of Four Vegetation Strata:
5. Dactylis glomerata	15	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.
				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	450			Herb – All herbaceous (non-woody) plants, regardless
75.0		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>75.0</u>	20% of	total cover:	30.0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3				
4		. <u></u>		Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No X
50% of total cover:				
Remarks: (Include photo numbers here or on a separate s				<u> </u>

Sampling Point: Upland BN-32,33

epth inches)	Matrix Color (moist)	%	Redox Color (moist)	K Feature:	Type ¹	Loc ²	Texture		Remarks	
) - 6	10YR 4/2	98	10YR 5/4	2	Concen	M	Clay loam	-	Abundant gra	avel
				-						
							-			
-										
								-		
							-			
-										
-										
				-				-		
		etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location: P	L=Pore Lin	ing, M=Matrix.	3
dric Soil Inc									roblematic Hy	
Histosol (A			Dark Surface		(- -)		· · · · · · · · · · · · · · · · · · ·		A10) (MLRA 14	47)
Histic Epip			Polyvalue Bel				, 148) C		e Redox (A16)	
Black Histi			Thin Dark Su			17, 148)		(MLRA 14		([40)
	Sulfide (A4) ayers (A5)		Loamy Gleye X Depleted Mat		F2)		P	(MLRA 1:	oodplain Soils ((F19)
	k (A10) (LRR N)		Redox Dark S		:6)		V		v Dark Surface	(TF12)
	Below Dark Surface	(A11)	Depleted Dar	•	,			•	ain in Remarks)	. ,
	Surface (A12)	,	Redox Depre				_	()	,	
	cky Mineral (S1) (L	RR N,	Iron-Mangane			RR N,				
	147, 148)		MLRA 136							
Sandy Gle	yed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 136	, 122)	³ Ind	icators of h	ydrophytic veg	etation and
Sandy Red			Piedmont Flo						ology must be p	
Stripped M			Red Parent M	laterial (F	21) (MLRA	127, 14	7) un	less disturb	ed or problema	atic.
strictive La	yer (if observed):									
	and hardpan								.,	
Depth (inch	es): <u>6.0</u>						Hydric Soil	Present?	Yes X	No
marks:										





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Rater(s): JFW Date: 2023-10-02 Site: Wetland BN-01 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetland BN-01	Rater(s): JFW	Date: 2023-10-02
30.0		
subtotal first page		
0.0 30.0 Metric 5. Special	Wetlands.	
max 10 pts. subtotal Check all that apply and score as		
Bog (10)		
Fen (10) Old growth forest (10)		
Mature forested wetland	d (5)	
	ary wetland-unrestricted hydrology (10)	
	ary wetland-restricted hydrology (5)	
Lake Plain Sand Prairie Relict Wet Prairies (10)		
	e/federal threatened or endangered species (10)	
	engbird/water fowl habitat or usage (10)	
Category 1 Wetland. S	ee Question 1 Qualitative Rating (-10)	
-2.0 28.0 Metric 6 Plant co	ommunities, interspersion, r	microtopography
ivieti ic d. Tiant co	•	. •
max 20 pts. subtotal 6a. Wetland Vegetation Commun Score all present using 0 to 3 sca		<0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		omprises small part of wetland's
1 Emergent		f moderate quality, or comprises a
0 Shrub 0 Forest	significant part but i 2 Present and either co	is of low quality comprises significant part of wetland's
0 Nudflats		f moderate quality or comprises a small
0 Open water	part and is of high o	quality
0 Other		es significant part, or more, of wetland's
6b. horizontal (plan view) Intersp Select only one.	ersion. vegetation and is of	r nigh quality
High (5)	Narrative Description of Vegetation	on Quality
Moderately high(4)		d/or predominance of nonnative or
Moderate (3) Moderately low (2)	mod Native spp are domin	t native species ant component of the vegetation,
Low (1)		and/or disturbance tolerant native spp
X None (0)	·	t, and species diversity moderate to
6c. Coverage of invasive plants.		ut generally w/o presence of rare
to Table 1 ORAM long form for lis or deduct points for coverage		ngered spp ative species, with nonnative spp
Extensive >75% cover		tolerant native spp absent or virtually
X Moderate 25-75% cove		op diversity and often, but not always,
Sparse 5-25% cover (-' Nearly absent <5% cov	,	e, threatened, or endangered spp
Absent (1)	Mudflat and Open Water Class Qu	uality
6d. Microtopography.	0 Absent <0.1ha (0.24	
Score all present using 0 to 3 sca		
0 Vegetated hummucks/t 0 Coarse woody debris >		
0 Standing dead >25cm (` '	y or more
Amphibian breeding po		
	0 Absent	
	1 Present very small ar of marginal quality	mounts or if more common
		amounts, but not of highest
	quality or in small a	mounts of highest quality
	3 Present in moderate and of highest quali	=
28.0 GRAND TOTAL (max 100 pt	and of highest quali	ııy
I I OIV II DI I O I ME (III I M PI	·~ <i>,</i>	

Rater(s): JFW Date: 2023-10-02 Site: Wetland BN-02 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) 6.5 Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetlar	nd BN-02	Rater(s): JFW		Date: 2023-10-02
40.5	_			
0.0 40.5	Metric 5. Special W	etlands.		
max 10 pts. subtotal	Check all that apply and score as indi Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary v Lake Erie coastal/tributary v Lake Plain Sand Prairies (0) Relict Wet Prairies (10) Known occurrence state/fec Significant migratory songb Category 1 Wetland. See (10)	vetland-unrestricted hydrovetland-restricted hydrovetland-restricted hydrovak Openings) (10) deral threatened or endated or endated water fowl habitat or	angered species (10)	
-2.0 38.5	Metric 6 Plant com	munities int	erspersion microto	nography
max 20 pts. subtotal	Metric 6. Plant com 6a. Wetland Vegetation Communities	•	Cerspersion, microto Community Cover Scale	pograpny.
•	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
	0 Aquatic bed	1	Present and either comprises small	all part of wetland's
	1 Emergent		vegetation and is of moderate q	luality, or comprises a
	0 Shrub		significant part but is of low qua	•
	0 Forest	2	Present and either comprises sign	nificant part of wetland's
	0 Mudflats		vegetation and is of moderate q	uality or comprises a small
	0 Open water	-	part and is of high quality	
	0 Other	_ 3	Present and comprises significant	
	6b. horizontal (plan view) Interspersion	on.	vegetation and is of high quality	!
	Select only one.			
	High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	
	Moderate (3)	-	disturbance tolerant native spec	
	Moderately low (2)	mod	Native spp are dominant compone	<u>-</u>
	Low (1)		although nonnative and/or distu	
	X None (0)		can also be present, and specie	-
	6c. Coverage of invasive plants. Ref		moderately high, but generally w	w/o presence of rare
	to Table 1 ORAM long form for list. A		threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native species	
	X Extensive >75% cover (-5)		and/or disturbance tolerant nativ	
	Moderate 25-75% cover (-3)	absent, and high spp diversity a	•
	Sparse 5-25% cover (-1)	.,	the presence of rare, threatened	d, or endangered spp
	Nearly absent <5% cover (0			
	Absent (1)		d Open Water Class Quality	
	6d. Microtopography.	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 ac	
	0 Vegetated hummucks/tussu		Moderate 1 to <4ha (2.47 to 9.88	acres)
	1 Coarse woody debris >15cr		High 4ha (9.88 acres) or more	
	O Standing dead >25cm (10in	•		
	1 Amphibian breeding pools		graphy Cover Scale	
		0	Absent	more common
		1	Present very small amounts or if	nore common
			of marginal quality	at not of highest
		2	Present in moderate amounts, bu	_
			quality or in small amounts of hi	
		3	Present in moderate or greater ar	nounts
38 5 05	ND TOTAL (man 100 11)		and of highest quality	
JOO.O GRAI	ND TOTAL (max 100 pts)			

Rater(s): JFW Date: 2023-10-02 Site: Wetland BN-03 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Rater(s): JFW Site: Wetland BN-03 Date: 2023-10-02 28.5 subtotal first page 28.5 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 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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)

Rater(s): JFW Date: 2023-10-03 Site: Wetland BN-04 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetlan	d BN-04	Rater(s): JFW		Date: 2023-10-03
37.0 subtotal first pa 0.0 37.0	ĺ			
0.0 37.0	Metric 5. Special W			
max 10 pts. subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (0 Relict Wet Prairies (10) Known occurrence state/fe Significant migratory songt Category 1 Wetland. See) wetland-unrestricted hydro wetland-restricted hydro Dak Openings) (10) deral threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
4.0 41.0	Metric 6. Plant com	munities int	arenarsion microto	nogranhy
max 20 pts. subtotal	6a. Wetland Vegetation Communitie	-	Community Cover Scale	pograpity.
max 20 ptc. Cubician	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	
	0 Aquatic bed	1	Present and either comprises sm	•
	1 Emergent 1 Shrub		vegetation and is of moderate of significant part but is of low qua	· · · · · · · · · · · · · · · · · · ·
	0 Forest	2	Present and either comprises sig	•
	0 Mudflats		vegetation and is of moderate of	
	Open water		part and is of high quality	
	O Other 6b. horizontal (plan view) Interspersi	_ 3	Present and comprises significan vegetation and is of high quality	
	Select only one.	OII.	vegetation and is of high quality	
	High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomi	
	Moderate (3)		disturbance tolerant native spec	
	X Moderately low (2) Low (1)	mod	Native spp are dominant compon although nonnative and/or distu	
	None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
	6c. Coverage of invasive plants. Re		moderately high, but generally	
	to Table 1 ORAM long form for list.		threatened or endangered spp	
	or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native species and/or disturbance tolerant nati	
	Moderate 25-75% cover (-3	3)	absent, and high spp diversity a	
	X Sparse 5-25% cover (-1)		the presence of rare, threatene	
	Nearly absent <5% cover (•	I Onen Water Class Quality	
	Absent (1) 6d. Microtopography.	<u>Mudnat and</u>	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 ac	cres)
	0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)
	Coarse woody debris >15cStanding dead >25cm (10in)		High 4ha (9.88 acres) or more	
	o Standing dead >25cm (10iii) Amphibian breeding pools	•	raphy Cover Scale	
	, unprission processing pools	0	Absent	
		1	Present very small amounts or if	more common
		2	of marginal quality	it not of highoot
		۷	Present in moderate amounts, bu quality or in small amounts of h	_
		3	Present in moderate or greater a	
44.0			and of highest quality	
41.0 GRAN	ND TOTAL (max 100 pts)			_

Site: Wetland BN-05		Rater(s): JFW	Date: 2023-10-03	
2.0 2.0 M	letric 1. Wetland Ar	ea (size).		
	size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
12.0 14.0 M	letric 2. Upland buf	fers and surrour	nding land use.	
max 14 pts. subtotal 2a.	X WIDE. Buffers average 50m MEDIUM. Buffers average 2 NARROW. Buffers average 2 VERY NARROW. Buffers average vERY NARROW. Buffers average VERY LOW. 2nd growth or X LOW. Old field (>10 years), MODERATELY HIGH. Resident MIGH. Urban, industrial, ope	elect only one and assign score (164ft) or more around wetlar 5m to <50m (82 to <164ft) aro 10m to <25m (32ft to <82ft) a verage <10m (<32ft) around we Select one or double check a older forest, prairie, savannah, shrubland, young second growdential, fenced pasture, park, can pasture, row cropping, minir	e. Do not double check. Ind perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0) and average. wildlife area, etc. (7) with forest. (5) conservation tillage, new fallo	ow field. (3)
11.5 25.5 M	letric 3. Hydrology.			
max 30 pts. subtotal 3a.	Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake Maximum water depth. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (3)	e water (3) e or stream) (5) y one and assign score.	Part of wetland/up Part of riparian or 3d. Duration inundation/satu Semi- to permane X Regularly inundat X Seasonally inundat	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2)
3e.	 × < 0.4m (<15.7in) (1) Modifications to natural hydrologic None or none apparent (12) x Recovered (7) Recovering (3) Recent or no recovery (1) 	check all disturbances obserditch tile dike weir stormwater input	check and average.	ŕ
10.0 35.5 N	Metric 4. Habitat Alto	eration and Deve	elopment.	
max 20 pts. subtotal 4a.	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	or double check and average.	·	
	Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) Habitat alteration. Score one or do			
35.5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
subtotal this page		LONIC POllutarits	nament ennounte	116

Rater(s): JFW Site: Wetland BN-05 Date: 2023-10-03 35.5 subtotal first page 35.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 32.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 GRAND TOTAL (max 100 pts)

Rater(s): JFW Date: 2023-10-03 Site: Wetland BN-06 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina other_Cattle impact stormwater input Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment

Site: Wetland BN-06	Rater(s): JFW	Date: 2023-10-03
8.5 subtotal first page		
0.0 8.5 Metric 5. Special W	/etlands.	
max 10 pts. subtotal Check all that apply and score as income Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (9) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory song	dicated. 5) wetland-unrestricted hydrology (10) wetland-restricted hydrology (5)	
0 0 405	nmunities, interspersion	. microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communitie	•	
Score all present using 0 to 3 scale.		ses <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		r comprises small part of wetland's
1 Emergent	vegetation and is	s of moderate quality, or comprises a
0 Shrub		out is of low quality
0 Forest 0 Mudflats		r comprises significant part of wetland's s of moderate quality or comprises a small
0 Open water	part and is of high	
0 Other		orises significant part, or more, of wetland's
6b. horizontal (plan view) Interspers	ion. vegetation and i	s of high quality
Select only one.		
High (5) Moderately high(4)	Narrative Description of Vegets low Low spp diversity	ation Quality and/or predominance of nonnative or
Moderate (3)		rant native species
Moderately low (2)		minant component of the vegetation,
Low (1)		ive and/or disturbance tolerant native spp
X None (0)	•	sent, and species diversity moderate to
6c. Coverage of invasive plants. Re		, but generally w/o presence of rare
to Table 1 ORAM long form for list. or deduct points for coverage		of native species, with nonnative spp
Extensive >75% cover (-5		ice tolerant native spp absent or virtually
Moderate 25-75% cover (-		n spp diversity and often, but not always,
Sparse 5-25% cover (-1)		rare, threatened, or endangered spp
Nearly absent <5% cover		.
x Absent (1) 6d. Microtopography.	Mudflat and Open Water Class 0 Absent <0.1ha (0	
Score all present using 0 to 3 scale.		0.247 to 2.47 acres)
0 Vegetated hummucks/tust		ha (2.47 to 9.88 acres)
0 Coarse woody debris >150		res) or more
0 Standing dead >25cm (10		
0 Amphibian breeding pools		
	0 Absent 1 Present very smal	I amounts or if more common
	of marginal qual	
		ate amounts, but not of highest
		all amounts of highest quality
		ate or greater amounts
10.5	and of highest q	uality
10.5 GRAND TOTAL (max 100 pts)		

Rater(s): JFW Date: 2023-10-04 Site: Wetland BN-07 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming 6.0toxic pollutants nutrient enrichment subtotal this page

Site: Wetland BN-07	Rater(s): JFW	Date: 2023-10-04
16.0		
subtotal first page		
0.0 16.0 Metric 5. Special W	letlands.	
max 10 pts. subtotal Check all that apply and score as inc		
Bog (10)	alouted.	
Fen (10)		
Old growth forest (10)	_,	
Mature forested wetland (o) wetland-unrestricted hydrology (10)	
	wetland-restricted hydrology (5)	
Lake Plain Sand Prairies (Oak Openings) (10)	
Relict Wet Prairies (10)	adamah dhara-taonad an andam warad an a siaa (40)	
	ederal threatened or endangered species (10) bird/water fowl habitat or usage (10)	
	Question 1 Qualitative Rating (-10)	
	0 \ ,	
2.0 18.0 Metric 6. Plant con	nmunities, interspersion, m	nicrotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communitie	•	
Score all present using 0 to 3 scale.		0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		nprises small part of wetland's
1 Emergent 0 Shrub	vegetation and is of r significant part but is	noderate quality, or comprises a
0 Forest		nprises significant part of wetland's
0 Mudflats		moderate quality or comprises a small
Open water	part and is of high qu	
0 Other6b. horizontal (plan view) Interspers		s significant part, or more, of wetland's
Select only one.	vegetation and is or r	iigh quanty
High (5)	Narrative Description of Vegetation	ı Quality
Moderately high(4)		or predominance of nonnative or
Moderate (3) Moderately low (2)	mod Native spp are domina	native species nt component of the vegetation,
Low (1)	_ · · · · · · · · · · · · · · · · · · ·	and/or disturbance tolerant native spp
X None (0)		and species diversity moderate to
6c. Coverage of invasive plants. Re		generally w/o presence of rare
to Table 1 ORAM long form for list. or deduct points for coverage		gered spp ive species, with nonnative spp
Extensive >75% cover (-5		blerant native spp absent or virtually
Moderate 25-75% cover (-		diversity and often, but not always,
Sparse 5-25% cover (-1)		threatened, or endangered spp
Nearly absent <5% cover X Absent (1)	(U) Mudflat and Open Water Class Qua	ality
6d. Microtopography.	0 Absent <0.1ha (0.247	
Score all present using 0 to 3 scale.	1 Low 0.1 to <1ha (0.247	
0 Vegetated hummucks/tus		
Coarse woody debris >150	, ,	or more
0 Standing dead >25cm (10 0 Amphibian breeding pools		
	0 Absent	
		ounts or if more common
	of marginal quality	mounts, but not of highest
		mounts, but not of highest nounts of highest quality
	3 Present in moderate or	
40.0	and of highest quality	
18.0 GRAND TOTAL (max 100 pts)		

Rater(s): JFW Date: 2023-10-04 Site: Wetland BN-08 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Rater(s): JFW Site: Wetland BN-08 Date: 2023-10-04 19.5 subtotal first page Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 18.5 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 Present and either comprises significant part of wetland's Forest 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 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, the presence of rare, threatened, or endangered spp Sparse 5-25% cover (-1) 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 18.5 GRAND TOTAL (max 100 pts)

Rater(s): JFW Date: 2023-10-03 Site: Wetland BN-09 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) X HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment

Site: Wetland BN-09	Rater(s): JFW	Date: 2023-10-03
29.5 subtotal first page		
0.0 29.5 Metric 5. Special V	Notlands	
max 10 pts. subtotal Check all that apply and score as in		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory son	(5) y wetland-unrestricted hydrology (10) y wetland-restricted hydrology (5)	
-3.0 26.5 Metric 6 Plant cor	nmunities, interspersion, r	microtonography
max 20 pts. subtotal 6a. Wetland Vegetation Communit	· · · · · · · · · · · · · · · · · · ·	
Score all present using 0 to 3 scale		<0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		omprises small part of wetland's
1 Emergent		f moderate quality, or comprises a
0 Shrub	significant part but	
0 Forest		omprises significant part of wetland's
0 Mudflats 0 Open water	part and is of high o	f moderate quality or comprises a small
0 Other		es significant part, or more, of wetland's
6b. horizontal (plan view) Intersper		
Select only one.	Nemative Description of Versateti	on Overlife
High (5) Moderately high(4)	Narrative Description of Vegetation low Low spp diversity and	d/or predominance of nonnative or
Moderate (3)	disturbance toleran	
Moderately low (2)	mod Native spp are domin	nant component of the vegetation,
Low (1)	_	and/or disturbance tolerant native spp
X None (0)	• • • • • • • • • • • • • • • • • • •	it, and species diversity moderate to
6c. Coverage of invasive plants. R to Table 1 ORAM long form for list.		ut generally w/o presence of rare
or deduct points for coverage		ative species, with nonnative spp
x Extensive >75% cover (-8		tolerant native spp absent or virtually
Moderate 25-75% cover	, ,	op diversity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover		e, threatened, or endangered spp
Absent (1)	Mudflat and Open Water Class Q	uality
6d. Microtopography.	0 Absent <0.1ha (0.24	
Score all present using 0 to 3 scale		
0 Vegetated hummucks/tus		
0 Coarse woody debris >15 0 Standing dead >25cm (10	, ,) or more
1 Amphibian breeding pool		
	0 Absent	
		mounts or if more common
	of marginal quality Present in moderate	amounts, but not of highest
		amounts, but not of highest amounts of highest quality
	3 Present in moderate	
20.5	and of highest gual	
26.5 GRAND TOTAL (max 100 pts	5)	

Rater(s): JFW Date: 2023-10-04 Site: Wetland BN-10 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetland BN-10	Rater(s): JFW	Date: 2023-10-04
32.0 subtotal first page		
0.0 32.0 Metric 5. Special V	Votlande	
mound of openial t		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (Lake Erie coastal/tributan Lake Erie coastal/tributan Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/fi	5) y wetland-unrestricted hydrology (10) y wetland-restricted hydrology (5)	
1.0 33.0 Metric 6 Plant cor		
Wicting 0. I lant con	nmunities, interspersion, r	. •
max 20 pts. subtotal 6a. Wetland Vegetation Communiti	_	
Score all present using 0 to 3 scale O Aquatic bed		<0.1ha (0.2471 acres) contiguous area omprises small part of wetland's
1 Emergent		f moderate quality, or comprises a
0 Shrub	significant part but	
0 Forest		emprises significant part of wetland's
0 Mudflats	_	f moderate quality or comprises a small
0 Open water 0 Other	part and is of high o	es significant part, or more, of wetland's
6b. horizontal (plan view) Interspers		
Select only one.		
High (5)	Narrative Description of Vegetation	
Moderately high(4) Moderate (3)	low Low spp diversity and disturbance toleran	d/or predominance of nonnative or
Moderately low (2)		nant component of the vegetation,
Low (1)		and/or disturbance tolerant native spp
X None (0)	·	t, and species diversity moderate to
6c. Coverage of invasive plants. R		ut generally w/o presence of rare
to Table 1 ORAM long form for list. or deduct points for coverage		ngered spp ative species, with nonnative spp
Extensive >75% cover (-5		tolerant native spp absent or virtually
Moderate 25-75% cover (op diversity and often, but not always,
Sparse 5-25% cover (-1)		e, threatened, or endangered spp
X Nearly absent <5% cover Absent (1)		uality.
6d. Microtopography.	Mudflat and Open Water Class Quality Absent <0.1ha (0.24	
Score all present using 0 to 3 scale		
0 Vegetated hummucks/tus		
O Coarse woody debris >15	• •) or more
0 Standing dead >25cm (10 0 Amphibian breeding pools		
7 mpriisian breeding pook	0 Absent	
		mounts or if more common
	of marginal quality	
		amounts, but not of highest
	quality or in small a Present in moderate	mounts of highest quality or greater amounts
	and of highest qual	=
33.0 GRAND TOTAL (max 100 pts)	

Rater(s): JFW Date: 2023-10-04 Site: Wetland BN-11 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment

Rater(s): JFW Site: Wetland BN-11 Date: 2023-10-04 29.5 subtotal first page Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 31.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 31.5 GRAND TOTAL (max 100 pts)

Rater(s): JFW Date: 2023-10-04 Site: Wetland BN-12 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Rater(s): JFW Site: Wetland BN-12 Date: 2023-10-04 30.0 subtotal first page 30.0 Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 28.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 GRAND TOTAL (max 100 pts)

Site: Wetlan	d BN-13	Rater(s): JFW		Date: 2023-10-04
0.0 0.0	Metric 1. Wetland A	Area (size)		
max 6 pts. subtotal	Select one size class and assign sco	ore. (a) (b) (c) (c) (c) (d) (d) (d) (d) (d) (d) (d) (e) (e) (e) (e) (e) (e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f		
11.0 11.0	Metric 2. Upland bu	uffers and surround	ing land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. X WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Uter VERY LOW. 2nd growth 0 X LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. If the control of	Do not double check. erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	
10.0 21.0	Metric 3. Hydrology	<i>I</i> .		
max 30 pts. subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (la source) 3c. Maximum water depth. Select of the source of the sour	t apply. ace water (3) ake or stream) (5) only one and assign score. 3b. 3d.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
8.0 29.0	None or none apparent (12 X Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non x filling/grading road bed/RR track dredging other	·
max 20 pts. subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score o	Iteration and Develo	pment.	
max 20 pg. Subject	x None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1) 4c. Habitat alteration. Score one or	ly one and assign score.		
29.0	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing x clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland BN-13	Rater(s): JFW		Date: 2023-10-04
29.0			
subtotal first page			
0.0 29.0 Metric 5. Special W	letlands.		
max 10 pts. subtotal Check all that apply and score as inc	licated.		
Bog (10) Fen (10) Old growth forest (10)			
Mature forested wetland (5 Lake Erie coastal/tributary	wetland-unrestricted hyd		
Lake Erie coastal/tributary Lake Plain Sand Prairies (•	ogy (5)	
Relict Wet Prairies (10)	oak openings) (10)		
Known occurrence state/fe			
Significant migratory song			
Category 1 Wetland. See	Question 1 Qualitative R	ating (-10)	
2.0 31.0 Metric 6. Plant con	munities inte	arenarsion microto	nnogranhy
motifie of Flant con	•	•	spograpity.
max 20 pts. subtotal 6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	vegetation of	Community Cover Scale Absent or comprises < 0.1ha (0.24)	471 acres) contiguous area
O Aquatic bed	1	Present and either comprises sm	, <u> </u>
1 Emergent		vegetation and is of moderate of	
0 Shrub		significant part but is of low qua	
0 Forest	2	Present and either comprises sig	
0 Mudflats 0 Open water		vegetation and is of moderate of part and is of high quality	quality of comprises a small
0 Other	3	Present and comprises significan	t part, or more, of wetland's
6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	/
Select only one.	N 5		
High (5) Moderately high(4)	Narrative De	Low spp diversity and/or predomi	nance of nonnative or
Moderate (3)	IOW	disturbance tolerant native spec	
Moderately low (2)	mod	Native spp are dominant compon	
Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
X None (0)	for	can also be present, and specie	•
6c. Coverage of invasive plants. Re to Table 1 ORAM long form for list.		moderately high, but generally threatened or endangered spp	w/o presence or rare
or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant nati	
Moderate 25-75% cover (-	3)	absent, and high spp diversity a	· ·
Sparse 5-25% cover (-1) Nearly absent <5% cover ((0)	the presence of rare, threatene	d, or endangered spp
X Absent (1)		Open Water Class Quality	
6d. Microtopography.	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 ac	
0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	3 acres)
0 Coarse woody debris >15c 0 Standing dead >25cm (10i		High 4ha (9.88 acres) or more	
0 Amphibian breeding pools		raphy Cover Scale	
<u>- </u>	0	Absent	
	1	Present very small amounts or if	more common
		of marginal quality	ut not of highoot
	2	Present in moderate amounts, bu quality or in small amounts of h	=
	3	Present in moderate or greater ar	
		and of highest quality	
31.0 GRAND TOTAL (max 100 pts)			

Rater(s): JFW Date: 2023-10-05 Site: Wetland BN-14 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) 3d. Duration inundation/saturation. Score one or dbl check. Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track dredging weir stormwater input other Metric 4. Habitat Alteration and Development. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal clearcutting Recent or no recovery (1) sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetland BN-14	Rater(s): JFW	Date : 2023-10-05
28.0		
subtotal first page		
$ 0.0 ^{28.0}$ Metric 5. Special	Wetlands.	
max 10 pts. subtotal Check all that apply and score as		
Bog (10)		
Fen (10)		
Old growth forest (10) Mature forested wetlan	d (5)	
	ary wetland-unrestricted hydrology (10)	
	ary wetland-restricted hydrology (5)	
Lake Plain Sand Prairie Relict Wet Prairies (10		
	e/federal threatened or endangered species (10)	
	ongbird/water fowl habitat or usage (10)	
Category 1 Wetland. S	See Question 1 Qualitative Rating (-10)	
-1.0 27.0 Metric 6 Plant co	ammunities interenersion	microtopography
Metric o. Trant co	ommunities, interspersion,	
max 20 pts. subtotal 6a. Wetland Vegetation Commu Score all present using 0 to 3 sca		s <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		comprises small part of wetland's
1 Emergent	=	of moderate quality, or comprises a
0 Shrub 0 Forest	significant part but 2 Present and either of	t is of low quality comprises significant part of wetland's
0 Forest 0 Mudflats		of moderate quality or comprises a small
0 Open water	part and is of high	quality
O Other		ses significant part, or more, of wetland's
6b. horizontal (plan view) Intersp Select only one.	vegetation and is o	of nigh quality
High (5)	Narrative Description of Vegetat	ion Quality
Moderately high(4)	The state of the s	nd/or predominance of nonnative or
Moderate (3) Moderately low (2)	disturbance tolera mod Native spp are domi	nt native species inant component of the vegetation,
Low (1)	• •	e and/or disturbance tolerant native spp
X None (0)	·	nt, and species diversity moderate to
6c. Coverage of invasive plants.		out generally w/o presence of rare
to Table 1 ORAM long form for lis or deduct points for coverage		native species, with nonnative spp
Extensive >75% cover		e tolerant native spp absent or virtually
X Moderate 25-75% cove	· · ·	spp diversity and often, but not always,
Sparse 5-25% cover (- Nearly absent <5% cov		re, threatened, or endangered spp
Absent (1)	Mudflat and Open Water Class C	Quality
6d. Microtopography.	0 Absent <0.1ha (0.2	
Score all present using 0 to 3 sca		
0 Vegetated hummucks/ 0 Coarse woody debris >		
0 Standing dead >25cm	• •	3) of more
1 Amphibian breeding po		
	0 Absent	amounts on if more some
	1 Present very small a of marginal quality	amounts or if more common
		e amounts, but not of highest
	quality or in small	amounts of highest quality
	3 Present in moderate	
27.0 GRAND TOTAL (max 100 p	and of highest qua	ансу
- 10.1.1.1.2 10.1.1.2 (III.d.X 100 p	 /	

Rater(s): MJA Date: 2023-10-05 Site: Wetland BN-15 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina other_Cattle disturbance stormwater input Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging 3.0woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetland BN-15	Rater(s):	MJA		Date: 2023-10-05
13.0				
subtotal first page				
0.0 42.0	Special Wetlands	_		
	oply and score as indicated.	-		
Bog (1 Fen (1 Old gr Mature Lake E Lake F Relict Knowr	10)	ted hydrolo (10) ed or endar	ogy (5) ngered species (10)	
	ory 1 Wetland. See Question 1 Qua			
3.0 16.0 Metric 6.	Plant communitie	s, inte	erspersion, microto	pography.
		-	Community Cover Scale	
	t using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	
0 Aquati		1	Present and either comprises sma	
1 Emerg			vegetation and is of moderate q significant part but is of low qua	
0 Shrub		2	Present and either comprises sign	•
0 Mudfla		_	vegetation and is of moderate q	
0 Open	water		part and is of high quality	
0 Other		3	Present and comprises significant	
Select only one.	olan view) Interspersion.		vegetation and is of high quality	
High (5) Na	rrative De	scription of Vegetation Quality	
	rately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
	rate (3)		disturbance tolerant native spec	
	rately low (2)	mod	Native spp are dominant compone	_
Low (1			although nonnative and/or disturcan also be present, and species	
	f invasive plants. Refer		moderately high, but generally w	•
	M long form for list. Add		threatened or endangered spp	•
or deduct points		high	A predominance of native species	
	sive >75% cover (-5) rate 25-75% cover (-3)		and/or disturbance tolerant nativ	
	e 5-25% cover (-1)		absent, and high spp diversity a the presence of rare, threatened	
	absent <5% cover (0)			.,
X Absen	` '	ıdflat and	Open Water Class Quality	
6d. Microtopogr		0	Absent <0.1ha (0.247 acres)	
	t using 0 to 3 scale. ated hummucks/tussucks	2	Low 0.1 to <1ha (0.247 to 2.47 ac Moderate 1 to <4ha (2.47 to 9.88	
	e woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	acres)
	ing dead >25cm (10in) dbh		,	
1 Amphi	ibian breeding pools Mic		aphy Cover Scale	
	_	0	Absent	more comment
		1	Present very small amounts or if r of marginal quality	nore common
		2	Present in moderate amounts, bu	t not of highest
		=	quality or in small amounts of hi	=
		3	Present in moderate or greater an	
16.0 00000 70700			and of highest quality	
16.0 GRAND TOTAL (max 100 pts)			

Site: Wetland E	Site: Wetland BN-16 Rater(s): MJA		Date: 2023-10-05	
2.0 2.0 _M	etric 1. Wetland Ar	ea (size).		
	ect one size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1h 3 to <10 acres (1.2 to <4ha) x 0.3 to <3 acres (0.12 to <1.2 0.1 to <0.3 acres (0.04 to <0 <0.1 acres (0.04ha) (0 pts)	e. .2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
8.0 10.0 _M	etric 2. Upland buf	fers and surroun	ding land use.	
max 14 pts. subtotal 2a.	Calculate average buffer width. So WIDE. Buffers average 50m x MEDIUM. Buffers average 2 NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Resi HIGH. Urban, industrial, open	elect only one and assign score in (164ft) or more around wetland 25m to <50m (82 to <164ft) around to <25m to <25m (32ft to <82ft) around we select one or double check arolder forest, prairie, savannah, is shrubland, young second grow dential, fenced pasture, park, cen pasture, row cropping, mining	e. Do not double check. d perimeter (7) und wetland perimeter (4) round wetland perimeter (1) rotland perimeter (0) nd average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo	ow field. (3)
18.0 28.0 _M	etric 3. Hydrology.			
max 30 pts. subtotal 3a.	Sources of Water. Score all that a High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfac Perennial surface water (lake Maximum water depth. Select onl >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (e water (3) e or stream) (5) y one and assign score.	Part of wetland/up Part of riparian or Bd. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2)
3e.	 X < < 0.4m (<15.7in) (1) Modifications to natural hydrologic None or none apparent (12) X Recovered (7) Recovering (3) Recent or no recovery (1) 	Check all disturbances obserditch tile dike weir stormwater input	check and average.	,
8.5 36.5 _M	etric 4. Habitat Alt	eration and Deve	elopment.	
max 20 pts. subtotal 4a.	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	or double check and average.		
	Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) Habitat alteration. Score one or defeated to the cooling of the co	·		
36.5	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances obsert mowing grazing x clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland BN-16	Rater(s): MJA	Date: 2023-10-05
36.5		
0.0 36.5 Metric 5. Special V	Votlands	
motifie of openial t		
Lake Erie coastal/tributary Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/f Significant migratory song	5) v wetland-unrestricted hydrology (10) v wetland-restricted hydrology (5)	s (10)
-2.0 34.5 Metric 6 Plant con		
inictrio of Flant con	•	on, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communiti		
Score all present using 0 to 3 scale. O Aquatic bed		mprises <0.1ha (0.2471 acres) contiguous area either comprises small part of wetland's
0 Aquatic bed 1 Emergent		and is of moderate quality, or comprises a
0 Shrub	=	part but is of low quality
0 Forest		either comprises significant part of wetland's
0 Mudflats		and is of moderate quality or comprises a small
0 Open water	part and is	of high quality
0 Other		comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspers	sion. vegetation	and is of high quality
Select only one.	Nametica Description of V	As matation Ovality
High (5) Moderately high(4)	Narrative Description of V	ersity and/or predominance of nonnative or
Moderate (3)		e tolerant native species
Moderately low (2)		re dominant component of the vegetation,
Low (1)		onnative and/or disturbance tolerant native spp
X None (0)	can also be	e present, and species diversity moderate to
6c. Coverage of invasive plants. R		high, but generally w/o presence of rare
to Table 1 ORAM long form for list.		or endangered spp
or deduct points for coverage		nce of native species, with nonnative spp
Extensive >75% cover (-5		urbance tolerant native spp absent or virtually
X Moderate 25-75% cover (Sparse 5-25% cover (-1)	•	d high spp diversity and often, but not always, ce of rare, threatened, or endangered spp
Nearly absent <5% cover		ce of rare, tilleatened, of endangered spp
Absent (1)	Mudflat and Open Water (Class Quality
6d. Microtopography.		ha (0.247 acres)
Score all present using 0 to 3 scale.		1ha (0.247 to 2.47 acres)
0 Vegetated hummucks/tus	sucks 2 Moderate 1	to <4ha (2.47 to 9.88 acres)
0 Coarse woody debris >15	` '	38 acres) or more
0 Standing dead >25cm (10		
0 Amphibian breeding pools		cale
	0 Absent	amall amounts or if more commen
	-	small amounts or if more common
	of margina 2 Present in m	oderate amounts, but not of highest
		n small amounts of highest quality
		oderate or greater amounts
	and of high	
34.5 GRAND TOTAL (max 100 pts)	

Rater(s): JFW Date: 2023-10-05 Site: Wetland BN-17 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Rater(s): JFW Site: Wetland BN-17 Date: 2023-10-05 31.5 subtotal first page 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) 31.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 31.5 GRAND TOTAL (max 100 pts)

Site: Wetland E	Site: Wetland BN-18 Rater(s): MJA		Date: 2023-10-05	
2.0 2.0 M	etric 1. Wetland Ar	rea (size)		
	ect one size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1h 3 to <10 acres (1.2 to <4ha) × 0.3 to <3 acres (0.12 to <1.2 0.1 to <0.3 acres (0.04 to <0 <0.1 acres (0.04ha) (0 pts)	e. .2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
11.0 13.0 M	etric 2. Upland buf	fers and surrour	nding land use.	
max 14 pts. subtotal 2a.	X WIDE. Buffers average 50m MEDIUM. Buffers average 2 NARROW. Buffers average 2 VERY NARROW. Buffers average 1 Intensity of surrounding land use. X LOW. Old field (>10 years), X MODERATELY HIGH. Resident	elect only one and assign score in (164ft) or more around wetlan 25m to <50m (82 to <164ft) around to <25m to <25m (32ft to <82ft) around we verage <10m (<32ft) around we Select one or double check arolder forest, prairie, savannah, shrubland, young second grow	e. Do not double check. d perimeter (7) und wetland perimeter (4) round wetland perimeter (1) stland perimeter (0) nd average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo	
14.5 27.5 M	etric 3. Hydrology.			
max 30 pts. subtotal 3a.	Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surface Perennial surface water (lake Maximum water depth. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (X <0.4m (<15.7in) (1) Modifications to natural hydrologic None or none apparent (12) X Recovered (7)	e water (3) e or stream) (5) y one and assign score.	Part of wetland/up X Part of riparian or Bd. Duration inundation/satu Semi- to permane Regularly inundat X Seasonally inundat X Seasonally satura Check and average. Ved point source (non	in (1) lake and other human use (1) lake and other human use (1) land (e.g. forest), complex (1) lupland corridor (1) luration. Score one or dbl check. lently inundated/saturated (4) led/saturated (3) lated (2) lated in upper 30cm (12in) (1)
10 0 37 5 M	Recovering (3) Recent or no recovery (1)	tile dike weir stormwater input	x filling/grading road bed/RR track dredging other	k
max 20 pts. subtotal 4a.	letric 4. Habitat Alto Substrate disturbance. Score one	eration and Deve or double check and average.	elopment.	
	None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) Habitat alteration. Score one or do	·		
10.	None or none apparent (9) x Recovered (6)	Check all disturbances obser	vedshrub/sapling rem	noval
37.5	Recovering (3) Recent or no recovery (1)	grazing x clearcutting selective cutting woody debris removal toxic pollutants	herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland BN-18	Rater(s): MJA	Date: 2023-10-05
37.5 subtotal first page		
0.0 37.5 Metric 5. Special We	etlands	
Modifie of openial W		
Lake Erie coastal/tributary w Lake Plain Sand Prairies (O Relict Wet Prairies (10) Known occurrence state/fed Significant migratory songbi	vetland-unrestricted hydrology (10) vetland-restricted hydrology (5)	
-1.0 36.5 Metric 6. Plant com	munities, interspersion, r	microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities	•	. •
Score all present using 0 to 3 scale.		<0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		omprises small part of wetland's
1 Emergent	_	f moderate quality, or comprises a
0 Shrub	significant part but	
0 Forest 0 Mudflats		omprises significant part of wetland's f moderate quality or comprises a small
0 Open water	part and is of high o	
0 Other		es significant part, or more, of wetland's
6b. horizontal (plan view) Interspersio		
Select only one.		
High (5)	Narrative Description of Vegetation	
Moderately high(4) Moderate (3)	low Low spp diversity and disturbance toleran	d/or predominance of nonnative or
Moderate (3) Moderately low (2)		nant component of the vegetation,
Low (1)		and/or disturbance tolerant native spp
X None (0)	can also be presen	t, and species diversity moderate to
6c. Coverage of invasive plants. Refe		ut generally w/o presence of rare
to Table 1 ORAM long form for list. A		
or deduct points for coverage Extensive >75% cover (-5)	=	ative species, with nonnative spp tolerant native spp absent or virtually
X Moderate 25-75% cover (-3)		op diversity and often, but not always,
Sparse 5-25% cover (-1)	•	e, threatened, or endangered spp
Nearly absent <5% cover (0	•	
Absent (1)	Mudflat and Open Water Class Qu	
6d. Microtopography. Score all present using 0 to 3 scale.	0 Absent <0.1ha (0.24 1 Low 0.1 to <1ha (0.24	
0 Vegetated hummucks/tussu		
0 Coarse woody debris >15cn		
0 Standing dead >25cm (10in		
1 Amphibian breeding pools	Microtopography Cover Scale	
	0 Absent 1 Present very small ar	mounts or if more common
	of marginal quality	nounts of it more collillor
	0 , ,	amounts, but not of highest
	quality or in small a	mounts of highest quality
	3 Present in moderate	=
36.5 GRAND TOTAL (max 100 pts)	and of highest qual	ity
TOOLO INTRAINID TOTAL TIMES THE TIME OF STREET		

Site: Wetland BN-19			Rater(s): MJA		Date: 2023-10-05
0.0 0.0	Ом	letric 1. Wetland A	rea (size).		
max 6 pts. subtol	al Sel	lect one size class and assign scor >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1) 3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1.3 0.1 to <0.3 acres (0.04 to <0.3 × <0.1 acres (0.04ha) (0 pts)	e. 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
8.0 8.0	M	letric 2. Upland bu	ffers and surroun	ding land use.	
max 14 pts. subtol	al 2a.	Calculate average buffer width. S WIDE. Buffers average 50r X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use. VERY LOW. 2nd growth or X LOW. Old field (>10 years) X MODERATELY HIGH. Res	Select only one and assign score m (164ft) or more around wetland 25m to <50m (82 to <164ft) aroue 10m to <25m (32ft to <82ft) aroue verage <10m (<32ft) around wet	Do not double check. If perimeter (7) Ind wetland perimeter (4) Dound wetland perimeter (1) Itland perimeter (0) Itland perimeter (0) Itland average. Itland area, etc. (7) Ith forest. (5) Inservation tillage, new fallo	ow field. (3)
15.0 23.	0 M	letric 3. Hydrology			
max 30 pts. subto	al 3a. 3c.	Sources of Water. Score all that High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfact Perennial surface water (laken Maximum water depth. Select on 10.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) Modifications to natural hydrologic	apply. 3 ce water (3) ke or stream) (5) 3 lly one and assign score.	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane X Regularly inundat Seasonally inundat Seasonally satura	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
	_	None or none apparent (12) X Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non: x filling/grading road bed/RR track dredging other	·
8.0 31.	0 M	letric 4. Habitat Alt	teration and Deve	lopment.	
max 20 pts. subto	а 4 а. 4b.	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) Habitat alteration. Score one or compared to the second of the seco	e or double check and average. y one and assign score.		
31.	0	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing x clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aquated sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland BN-19	Rater(s): MJA	Date: 2023-10-08
31.0		
subtotal first page		
$ 0.0 ^{31.0}$ Metric 5. Special V	Vetlands.	
max 10 pts. subtotal Check all that apply and score as in		
Bog (10)		
Fen (10) Old growth forest (10)		
Mature forested wetland (5)	
	wetland-unrestricted hydrology (10)	
Lake Erie coastal/tributary Lake Plain Sand Prairies	wetland-restricted hydrology (5) (Oak Openings) (10)	
Relict Wet Prairies (10)	Cak Opermigo) (10)	
	ederal threatened or endangered species	(10)
	bird/water fowl habitat or usage (10) Question 1 Qualitative Rating (-10)	
	Queens : Quantante : tamig (10)	
4.0 35.0 Metric 6. Plant con	nmunities, interspersi	on, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communiti	•	
Score all present using 0 to 3 scale.		mprises <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed 1 Emergent		either comprises small part of wetland's and is of moderate quality, or comprises a
0 Shrub	=	part but is of low quality
0 Forest		either comprises significant part of wetland's
0 Mudflats 0 Open water	=	and is of moderate quality or comprises a small of high quality
0 Other		comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspers	sion. vegetation a	and is of high quality
Select only one. High (5)	Narrative Description of V	egetation Quality
Moderately high(4)		rsity and/or predominance of nonnative or
Moderate (3)		tolerant native species
Moderately low (2) Low (1)		e dominant component of the vegetation, nnative and/or disturbance tolerant native spp
x None (0)	_	present, and species diversity moderate to
6c. Coverage of invasive plants. R		high, but generally w/o presence of rare
to Table 1 ORAM long form for list. or deduct points for coverage		or endangered spp nce of native species, with nonnative spp
Extensive >75% cover (-5		rbance tolerant native spp absent or virtually
Moderate 25-75% cover (,	high spp diversity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover		e of rare, threatened, or endangered spp
X Absent (1)	Mudflat and Open Water C	lass Quality
6d. Microtopography.		na (0.247 acres)
Score all present using 0 to 3 scale. O Vegetated hummucks/tus		ha (0.247 to 2.47 acres) o <4ha (2.47 to 9.88 acres)
0 Coarse woody debris >15		8 acres) or more
0 Standing dead >25cm (10		<u> </u>
2 Amphibian breeding pools	Microtopography Cover Se 0 Absent	cale
		small amounts or if more common
	of marginal	quality
		oderate amounts, but not of highest small amounts of highest quality
		oderate or greater amounts
25.0	and of high	
35.0 GRAND TOTAL (max 100 pts		

Rater(s): MJA Date: 2023-10-05 Site: Wetland BN-20 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track dredging weir other_ Culverted ATV crossing stormwater input Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Rater(s): MJA Site: Wetland BN-20 Date: 2023-10-05 26.5 subtotal first page 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) 22.5 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 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 GRAND TOTAL (max 100 pts)

Rater(s): JFW Date: 2023-10-05 Site: Wetland BN-21 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredaina stormwater input other Metric 4. Habitat Alteration and Development. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

33.0	Site: Wetland	I BN-21	Rater(s): JFW		Date: 2023-10-05
D.O. 33.0 Metric 5. Special Wetlands.	33.0				
Metric 5. Special Wetlands. Check all that apply and score as indicated. Bog (10) Fig. (10) Fi		۵			
Check all that apply and score as indicated. Gog (10)		-			
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coastal/tributary wetland-unrestricted hydrology (10) Lake Eric coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Significant migratory songhirdwater fowl habitat or usage (10) Category I Wetland. See Question I Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. Vegetation Communities Score all present using 0 to 3 scale. On Aquatic bed In Emergent On Shrub On Forest On Shrub On High (5) On High (5) On High (6) On How water On High (6) On High (6) On How water On High (6) On How	0.0 [33.0]	Metric 5. Special W	<i>l</i> etlands.		
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Significant migratory songbird/water fow habitat or usage (10) Metric 6. Plant communities, interspersion, microtopography. 8a. Wetland Vegetation Communities, interspersion, microtopography. 8a. Wetland Vegetation Communities, interspersion, microtopography. 8a. Wetland Vegetation Communities, interspersion, microtopography. 8b. Wetland Vegetation Communities, interspersion, microtopography. 8core all present using 0 to 3 scale. Aquatic bed Emergent			adoral throatoned or and	angered species (10)	
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Sample S					
Sample S	-4 0 29 0	Matria C. Dlant can		aranaraian miarat	
Score all present using 0 to 3 scale. O			•		opograpny.
Territory Terr		_			471 acres) contiguous area
Shrub Significant part but is of low quality		o Aquatic bed	1	Present and either comprises sm	nall part of wetland's
O Forest O Mudflats O Open water O Other So. horizontal (plan view) Interspersion. Select only one.				=	
Department of the part and is of high quality			2		
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Select only one.		<u> </u>	3		nt part or more of wetland's
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Moderate (3) disturbance tolerant native species					inance of nonnative or
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to Table 1 ORAM long form for list. Add or deduct points for coverage X					• • • • • • • • • • • • • • • • • • • •
or deduct points for coverage X Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Microtopography Cover Scale Negretard 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 <1 Low 0.1 to <1ha (0.247 to 2.47 acres) 1 Low 0.1 to <4ha (2.47 to 9.88 acres) 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 3 Present in moderate or greater amounts and of highest quality				, , ,	•
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Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. © Vegetated hummucks/tussucks © Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale © Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate or greater amounts and of highest quality		Extensive >75% cover (-5))	and/or disturbance tolerant nati	ive spp absent or virtually
Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks O Coarse woody debris >15cm (6in) O Standing dead >25cm (10in) dbh O Amphibian breeding pools O Absent O Absent			3)	•	•
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Amphibian breeding pools Microtopography Cover Scale			` /	High 4ha (9.88 acres) or more	
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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		<u></u>	0	Absent	
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quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality			2	0 , ,	ut not of highest
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29.0 GRAND TOTAL (max 100 pts)				_	mounts
	29.0 GRANI	D TOTAL (max 100 pts)		and or highest quality	

Site: Wetland BN-22			Rater(s): JFW		Date: 2023-10-05
1.0 1	.О м	letric 1. Wetland A	rea (size).		
max 6 pts. sul		lect one size class and assign scon	e. 0.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts)		
7.0 8	.О м	letric 2. Upland bu	ffers and surroun	ding land use.	
max 14 pts. sul	btotal 2a.	Calculate average buffer width. S WIDE. Buffers average 50r MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years). MODERATELY HIGH. Res	Select only one and assign score. In (164ft) or more around wetland 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around 10m to <25m (32ft to <82ft) around wetland	Do not double check. perimeter (7) nd wetland perimeter (4) pund wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) h forest. (5) enservation tillage, new fallo	ow field. (3)
10.5 18	3.5 M	letric 3. Hydrology			
	obtotal 3a.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfac Perennial surface water (lak Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1)	apply. 3t ce water (3) ce or stream) (5) 3c ly one and assign score.	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane Regularly inundati X Seasonally inundati X Seasonally satura	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
		Modifications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non: x filling/grading road bed/RR track dredging other	·
7.0 25	5.5 N	Metric 4. Habitat Alt	teration and Devel	lopment.	
max 20 pts. sul	4b.	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	or double check and average. one and assign score.		
<u> </u>	5.5 I this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing X clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmen	tic bed removal

Rater(s): JFW Site: Wetland BN-22 Date: 2023-10-05 25.5 subtotal first page 25.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 21.5 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 Present and either comprises significant part of wetland's Forest 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 21.5 GRAND TOTAL (max 100 pts)

Rater(s): JFW Date: 2023-10-05 Site: Wetland BN-23 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track weir dredging stormwater input other Metric 4. Habitat Alteration and Development. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment

Site: Wetland BN-23		Rater(s): JFW		Date: 2023-10-05
29.5	5			
subtotal first	Ť			
0.0 29.5	Metric 5. Special \	Wetlands.		
max 10 pts. subtotal				
	Bog (10)			
	Fen (10)			
	Old growth forest (10) Mature forested wetland	(5)		
		y wetland-unrestricted hyd	drology (10)	
		y wetland-restricted hydro	ology (5)	
	Lake Plain Sand Prairies	(Oak Openings) (10)		
	Relict Wet Prairies (10) Known occurrence state/	federal threatened or enda	angered species (10)	
		gbird/water fowl habitat or		
	Category 1 Wetland. Se	e Question 1 Qualitative F	Rating (-10)	
-2.0 27.5	Matria C. Blant and			
			-	opograpny.
max 20 pts. subtotal	6a. Wetland Vegetation Communit Score all present using 0 to 3 scale		Community Cover Scale Absent or comprises < 0.1ha (0.3)	2471 acros) contiguous area
	O Aquatic bed	. <u> </u>	Present and either comprises sr	
	1 Emergent		vegetation and is of moderate	
	0 Shrub		significant part but is of low qu	
	0 Forest 0 Mudflats	2	Present and either comprises si vegetation and is of moderate	
	0 Open water		part and is of high quality	quality of comprisce a circum
	O Other	3	Present and comprises significa	
	6b. horizontal (plan view) Intersper Select only one.	sion.	vegetation and is of high quali	ty
	High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predon	
	Moderate (3) Moderately low (2)	mod	Native spp are dominant compo	
	Low (1)	IIIOu	although nonnative and/or dis	•
	X None (0)		can also be present, and spec	cies diversity moderate to
	6c. Coverage of invasive plants. F		moderately high, but generally	
	to Table 1 ORAM long form for list. or deduct points for coverage	high	threatened or endangered spp A predominance of native speci-	
	Extensive >75% cover (-		and/or disturbance tolerant na	
	X Moderate 25-75% cover		absent, and high spp diversity	-
	Sparse 5-25% cover (-1) Nearly absent <5% cover		the presence of rare, threaten	ed, or endangered spp
	Absent (1)	• •	d Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale 0 Vegetated hummucks/tus		Low 0.1 to <1ha (0.247 to 2.47 a Moderate 1 to <4ha (2.47 to 9.8	
	0 Coarse woody debris >15		High 4ha (9.88 acres) or more	oo acres)
	0 Standing dead >25cm (1	0in) dbh		
	0 Amphibian breeding pool		graphy Cover Scale	
		<u> </u>	Absent Present very small amounts or i	f more common
		1	of marginal quality	i more commun
		2	Present in moderate amounts, b	_
			quality or in small amounts of	
		3	Present in moderate or greater a and of highest quality	amounts
27.5 G RA	ND TOTAL (max 100 pts	<u> </u>	м ,	
- I	· · · · · · · · · · · · · · · · · · ·			

Site: Wetland BN-24	Rater(s): MJA		Date: 2023-10-03			
2.0 2.0 Metric 1. Wetland Area (size).						
max 6 pts. subtotal Select one size class >50 acres 25 to <50 10 to <25 3 to <10 a						
8.0 10.0 Metric 2. U	Jpland buffers and surro	unding land use.				
max 14 pts. subtotal 2a. Calculate avera WIDE. Bt X MEDIUM. NARROW VERY NA 2b. Intensity of surr VERY LO X LOW. Old X MODERA	ge buffer width. Select only one and assign suffers average 50m (164ft) or more around we Buffers average 25m to <50m (82 to <164ft). Buffers average 10m to <25m (32ft to <82 RROW. Buffers average <10m (<32ft) around ounding land use. Select one or double chew. 2nd growth or older forest, prairie, savand field (>10 years), shrubland, young second TELY HIGH. Residential, fenced pasture, paban, industrial, open pasture, row cropping, n	score. Do not double check. etland perimeter (7) around wetland perimeter (4) ft) around wetland perimeter (1) d wetland perimeter (0) ck and average. nah, wildlife area, etc. (7) growth forest. (5) rk, conservation tillage, new falle				
9.0 19.0 Metric 3. F	lydrology.					
max 30 pts. subtotal 3a. Sources of Wat High pH g Other gro X Precipitati Seasonal Perennial 3c. Maximum water >0.7 (27.6 0.4 to 0.7) X <0.4m (<1	er. Score all that apply. roundwater (5) undwater (3) on (1) Intermittent surface water (3) surface water (lake or stream) (5) depth. Select only one and assign score. sin) (3) m (15.7 to 27.6in) (2) 15.7in) (1)	Part of wetland/u Part of riparian or 3d. Duration inundation/sat X Semi- to permand Regularly inundat Seasonally inundat Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)			
None or n Recovere X Recoverin Recent or	no recovery (1) tile dike weir stormwater input	bserved point source (nor filling/grading x road bed/RR trac dredging other other	·			
7.0 26.0 Metric 4. I	Habitat Alteration and De	evelopment.				
None or n X Recovere Recent or 4b. Habitat develop Excellent Very good Good (5)	rbance. Score one or double check and aversone apparent (4) d (3) g (2) no recovery (1) ment. Select only one and assign score. (7) I (6) y good (4)	age.				
	n. Score one or double check and average.					
Recovere X Recoverir		X shrub/sapling ren herbaceous/aqua sedimentation dredging	ttic bed removal			

Rater(s): MJA Site: Wetland BN-24 Date: 2023-10-03 26.0 subtotal first page 26.0 Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 24.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 GRAND TOTAL (max 100 pts)

Site: Wetland BN-25	Rater(s): MJA		Date: 2023-10-03
3.0 3.0 Metric 1. Wetland	Area (size)		
	• •		
Select one size class and assign sc	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8.0 11.0 Metric 2. Upland be	uffers and surroundi	ing land use.	
WIDE. Buffers average 5 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. R	Select only one and assign score. D 0m (164ft) or more around wetland pe e 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) around s average <10m (<32ft) around wetlan e. Select one or double check and a or older forest, prairie, savannah, wild s), shrubland, young second growth for esidential, fenced pasture, park, consi- open pasture, row cropping, mining, or	erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. llife area, etc. (7) prest. (5) ervation tillage, new fallo	ow field. (3)
19.0 30.0 Metric 3. Hydrolog	y.		
max 30 pts. subtotal 3a. Sources of Water. Score all that High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf	ace water (3)	Part of wetland/up × Part of riparian or	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1)
X Perennial surface water (I 3c. Maximum water depth. Select (>0.7 (27.6in) (3) X 0.4 to 0.7m (15.7 to 27.6in	only one and assign score.	X Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	
None or none apparent (1 Recovered (7) X Recovering (3) Recent or no recovery (1)	gic regime. Score one or double chec Check all disturbances observed ditch tile dike weir stormwater input	point source (non: filling/grading road bed/RR track dredging x other Local coal mir	k
8.0 38.0 Metric 4. Habitat A	Iteration and Develo	pment.	
max 20 pts. subtotal 4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1))		
4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) × Fair (3) Poor to fair (2) Poor (1)			
4c. Habitat alteration. Score one o None or none apparent (9 Recovered (6)		x shrub/sapling rem	noval
Recovering (3) Recent or no recovery (1)	selective cutting	herbaceous/aquares sedimentation dredging	tic bed removal
38.0	woody debris removal toxic pollutants	farming nutrient enrichme	nt

Rater(s): MJA Site: Wetland BN-25 Date: 2023-10-03 38.0 subtotal first page 38.0 Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 39.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 GRAND TOTAL (max 100 pts)

Rater(s): MJA Date: 2023-10-03 Site: Wetland BN-26 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) X HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track dredging weir other_Local coal mining stormwater input Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Rater(s): MJA Site: Wetland BN-26 Date: 2023-10-03 20.5 subtotal first page 20.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 20.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 20.5 GRAND TOTAL (max 100 pts)

Rater(s): MJA Date: 2023-10-03 Site: Wetland BN-27 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) X HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track dredging weir other_Local coal mining stormwater input Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetlar	nd BN-27	Rater(s): MJA		Date: 2023-10-03
16.0				
0.0 16.0	Metric 5. Special W	etlands.		
max 10 pts. subtotal	Check all that apply and score as indi			
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary v Lake Erie coastal/tributary v Lake Plain Sand Prairies (0 Relict Wet Prairies (10) Known occurrence state/fed Significant migratory songb Category 1 Wetland. See (10)	wetland-unrestricted hydro wetland-restricted hydro Pak Openings) (10) deral threatened or enda ird/water fowl habitat or	angered species (10)	
0.0 16.0	Motric 6 Plant com	munities int	orenoreion microto	nography
	Metric 6. Plant com 6a. Wetland Vegetation Communities	•	Community Cover Scale	phography.
max 20 pts. subtotal	Score all present using 0 to 3 scale.	o. <u>vegetation</u>	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
	O Aquatic bed	1	Present and either comprises sm	, ,
	1 Emergent		vegetation and is of moderate of	juality, or comprises a
	0 Shrub		significant part but is of low qua	·
	0 Forest 0 Mudflats	2	Present and either comprises sign vegetation and is of moderate of	
	Open water		part and is of high quality	quality of comprises a small
	0 Other	3	Present and comprises significan	t part, or more, of wetland's
	6b. horizontal (plan view) Interspersion	on.	vegetation and is of high quality	1
	Select only one.	Namatina D	and the second s	
	High (5) Moderately high(4)	low	Low spp diversity and/or predomi	nance of nonnative or
	Moderate (3)		disturbance tolerant native spec	
	Moderately low (2)	mod	Native spp are dominant compon	_
	Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
	X None (0) 6c. Coverage of invasive plants. Ref	or .	can also be present, and species moderately high, but generally was a second control of the can be can also be present, and species and species are can also be present, and species are can also be present.	•
	to Table 1 ORAM long form for list. A		threatened or endangered spp	mo presence or rare
	or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant nation	
	Moderate 25-75% cover (-3 X Sparse 5-25% cover (-1))	absent, and high spp diversity a	•
	Nearly absent <5% cover (<u> </u>	the presence of rare, threatened	u, or endangered Spp
	Absent (1)		d Open Water Class Quality	
	6d. Microtopography.	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 ac	
	Vegetated hummucks/tussiCoarse woody debris >15cr		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
	o Standing dead >25cm (10ir	` '	Trigit 4tta (5.00 acres) of thore	
	Amphibian breeding pools	•	graphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if of marginal quality	more common
		2	Present in moderate amounts, bu	t not of highest
		-	quality or in small amounts of h	_
		3	Present in moderate or greater ar	
16.0		-	and of highest quality	
I IO.U GRAI	ND TOTAL (max 100 pts)			

Site: Wetlan	d BN-28	Rater(s): MJA		Date: 2023-10-03
1.0 1.0	Metric 1. Wetland A	rea (size).		
max 6 pts. subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 × 0.1 to <0.3 acres (0.04 to < <1.1 ct	re.) 20.2ha) (5 pts) ha) (4 pts) a) (3 pts) .2ha) (2pts) 50.12ha) (1 pt)		
4.0 5.0	Metric 2. Upland bu	iffers and surround	ing land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X LOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Em (164ft) or more around wetland port 25m to <50m (82 to <164ft) around the 10m to <25m (32ft to <82ft) arour average <10m (<32ft) around wetlar	Oo not double check. erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
11.0 16.0	Metric 3. Hydrology	<i>1</i> .		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in	tapply. 3b. since water (3) ke or stream) (5) 3d. nly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
	x < 0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12 Recovered (7) X Recovering (3) Recent or no recovery (1)		ck and average.	k
6.0 22.0	Metric 4. Habitat Al	teration and Develo	ppment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on	ne or double check and average.		
	Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or	double check and average.		
22.0	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Rater(s): MJA Site: Wetland BN-28 Date: 2023-10-03 22.0 subtotal first page Metric 5. Special Wetlands. Check all that apply and score as indicated. 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) 20.0 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** 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 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) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 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 20.0 GRAND TOTAL (max 100 pts)

Site: Wetlan	d BN-29	Rater(s): MJA		Date: 2023-10-04
1.0 1.0	Metric 1. Wetland A	area (size).		
max 6 pts. subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1) 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1) x 0.1 to <0.3 acres (0.04 to <10.1) <0.1 acres (0.04ha) (0 pts)	ore.) 20.2ha) (5 pts) (ha) (4 pts) a) (3 pts) .2ha) (2pts) 50.12ha) (1 pt)		
4.0 5.0	Metric 2. Upland bu	ıffers and surroundi	ing land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X LOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Down (164ft) or more around wetland person to <50m (82 to <164ft) around per 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetlan	oo not double check. erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. llife area, etc. (7) prest. (5) ervation tillage, new fallo	
12.0 17.0	Metric 3. Hydrology	<i>1</i> .		
max 30 pts. subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	t apply. 3b. ace water (3) ke or stream) (5) 3d. nly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu X Semi- to permane Regularly inundat Seasonally inundat	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) curation. Score one or dbl check. ently inundated/saturated (4) led/saturated (3) lated (2)
	x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12 Recovered (7) X Recovering (3) Recent or no recovery (1)		ck and average.	k
6.0 23.0	Metric 4. Habitat Al	teration and Develo	pment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on	ne or double check and average.		
	Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or			
23.0	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland BN-29	Rater(s): MJA	Date: 2023-10-04
23.0		
subtotal first page		
0.0 23.0 Metric 5. Special	Wetlands.	
max 10 pts. subtotal Check all that apply and score as		
Bog (10)		
Fen (10) Old growth forest (10)		
Mature forested wetland	d (5)	
	ary wetland-unrestricted hydrology (10)	
Lake Plain Sand Prairie	ary wetland-restricted hydrology (5) es (Oak Openings) (10)	
Relict Wet Prairies (10)		
	e/federal threatened or endangered species (10)	
	ongbird/water fowl habitat or usage (10) see Question 1 Qualitative Rating (-10)	
$ -3.0 ^{20.0}$ Metric 6. Plant co	ommunities, interspersion,	, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Commun	nities. <u>Vegetation Community Cover S</u>	Scale
Score all present using 0 to 3 sca		es <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed 1 Emergent		comprises small part of wetland's sof moderate quality, or comprises a
0 Shrub		ut is of low quality
0 Forest		comprises significant part of wetland's
0 Mudflats 0 Open water	part and is of hig	s of moderate quality or comprises a small
0 Other	3 Present and comp	rises significant part, or more, of wetland's
6b. horizontal (plan view) Intersp	ersion. vegetation and is	s of high quality
Select only one. High (5)	Narrative Description of Vegeta	ation Quality
Moderately high(4)		and/or predominance of nonnative or
Moderate (3)		rant native species
Moderately low (2) Low (1)		minant component of the vegetation, ive and/or disturbance tolerant native spp
X None (0)	· · · · · · · · · · · · · · · · · · ·	ent, and species diversity moderate to
6c. Coverage of invasive plants. to Table 1 ORAM long form for lis		, but generally w/o presence of rare
or deduct points for coverage		f native species, with nonnative spp
X Extensive >75% cover		ce tolerant native spp absent or virtually
Moderate 25-75% cove Sparse 5-25% cover (-'	• •	spp diversity and often, but not always, rare, threatened, or endangered spp
Nearly absent <5% cov		rare, threatened, or endangered 3pp
Absent (1)	Mudflat and Open Water Class	
6d. Microtopography. Score all present using 0 to 3 sca	0 Absent <0.1ha (0.	.247 acres) 0.247 to 2.47 acres)
0 Vegetated hummucks/t		na (2.47 to 9.88 acres)
0 Coarse woody debris >		res) or more
0 Standing dead >25cm (
1 Amphibian breeding po	ols Microtopography Cover Scale 0 Absent	
	1 Present very small	amounts or if more common
	of marginal quali 2 Present in modera	ity te amounts, but not of highest
		ll amounts of highest quality
	3 Present in modera	te or greater amounts
20.0 GRAND TOTAL (max 100 pt	and of highest qu	uality
LOIO GRAND TOTAL (Max 100 pt	(S)	

Rater(s): MJA Date: 2023-10-04 Site: Wetland BN-30 Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) X HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. max 30 pts subtotal 3b. Connectivity. Score all that apply. High pH groundwater (5) 100 year floodplain (1) Other groundwater (3) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. 3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) >0.7 (27.6in) (3) Regularly inundated/saturated (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (nonstormwater) filling/grading Recovering (3) tile Recent or no recovery (1) dike road bed/RR track dredging weir other_Local coal mining stormwater input Metric 4. Habitat Alteration and Development. max 20 nts subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling removal mowing Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichment subtotal this page

Site: Wetland BN-30	Rater(s): MJA	Date : 2023-10-04
21.0 subtotal first page		
0.0 21.0 Metric 5. Special V	letlands.	
max 10 pts. subtotal Check all that apply and score as in		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (1) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/fi Significant migratory song	5) wetland-unrestricted hydrology (10) wetland-restricted hydrology (5)	0)
1.0 22.0 Metric 6. Plant con	nmunities, interspersio	n microtonography
max 20 pts. subtotal 6a. Wetland Vegetation Communiti	•	
Score all present using 0 to 3 scale.		rises <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed	·	er comprises small part of wetland's
1 Emergent		is of moderate quality, or comprises a
0 Shrub		t but is of low quality
0 Forest 0 Mudflats		er comprises significant part of wetland's d is of moderate quality or comprises a small
0 Open water	part and is of h	
0 Other		nprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspers	ion. vegetation and	d is of high quality
Select only one. High (5)	Narrative Description of Vege	etation Quality
Moderately high(4)		y and/or predominance of nonnative or
Moderate (3)		lerant native species
X Moderately low (2)		ominant component of the vegetation,
Low (1) None (0)	<u> </u>	ative and/or disturbance tolerant native spp esent, and species diversity moderate to
6c. Coverage of invasive plants. Re	•	gh, but generally w/o presence of rare
to Table 1 ORAM long form for list.		endangered spp
or deduct points for coverage		of native species, with nonnative spp
Extensive >75% cover (-5		ance tolerant native spp absent or virtually
X Moderate 25-75% cover (- Sparse 5-25% cover (-1)	•	gh spp diversity and often, but not always, of rare, threatened, or endangered spp
Nearly absent <5% cover		read, amountained, or ornately or our opp
Absent (1)	Mudflat and Open Water Clas	
6d. Microtopography.	0 Absent <0.1ha	
Score all present using 0 to 3 scale. O Vegetated hummucks/tus		(0.247 to 2.47 acres) 44ha (2.47 to 9.88 acres)
0 Coarse woody debris >15	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
0 Standing dead >25cm (10	• •	<u> </u>
1 Amphibian breeding pools		e
	0 Absent 1 Present very sm	all amounts or if more common
	of marginal qu	
		erate amounts, but not of highest
		nall amounts of highest quality
		erate or greater amounts
22.0 GRAND TOTAL (max 100 pts	and of highest	quality

Metric 1. Wetland Area (size).	Site: Wetland	I BN-31	Rater(s): MJA		Date: 2023-10-04
Total Park Section S	2.0 2.0	Metric 1. Wetland A	rea (size).		
## Track 14-pts. Subtobut 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) WIDE. Buffers average 50m (164ft) or more around wetland perimeter (4) NARROW. Buffers average 50m to -45m (32ft to -45ft) around wetland perimeter (7) NARROW. Buffers average -50m (-52ft) around wetland perimeter (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other forest, prairie, savarnanh, wildlife area, etc. (7) VERY LOW. 2nd growth or other		Select one size class and assign scol	re. 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
2a. Calculate average buffer width. Select only one and assign score. Do not double check.	7.0 9.0 h	Metric 2. Upland bu	ffers and surrou	nding land use.	
33. Sources of Water. Score all that apply. 36. Sources of Water. Score all that apply. 37. One groundwater (3) 38. Precipitation (1) 39. Other groundwater (3) 30. Precipitation (1) 30. Seasonal/Intermittent surface water (3) 30. Part of inpains or upland corridor (1) 30. Maximum water depth. Select only one and assign score. 30. Maximum water depth. Select only one and assign score. 30. Variable (1) 30. 4 to 0.7m (15.7 to 27.6in) (2) 30. None or none apparent (12) 31. Recovered (7) 32. Recovering (3) 33.0 33.0 33.0 33.0 Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. 33.0 Metric 4. Habitat Paply. 35. Connectivity. Score all that apply. 36. Maximum water depth. Select only one and assign score. 37.0 38. Semi-to permanently inundated/saturated (4) 39. Seasonally inundated/saturated (3) 30. Seasonally inundated/saturated/sat	max 14 pts. subtotal 2	2a. Calculate average buffer width. S WIDE. Buffers average 50 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers: 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X LOW. Old field (>10 years) MODERATELY HIGH. Res X HIGH. Urban, industrial, op	Select only one and assign scorm (164ft) or more around wetlar 25m to <50m (82 to <164ft) arc e 10m to <25m (32ft to <82ft) a average <10m (<32ft) around w. Select one or double check a rolder forest, prairie, savannah, shrubland, young second grovesidential, fenced pasture, park, open pasture, row cropping, minir	re. Do not double check. and perimeter (7) bund wetland perimeter (4) around wetland perimeter (1) retland perimeter (0) and average. buildlife area, etc. (7) buth forest. (5) conservation tillage, new fallo	
33. Sources of Water. Score all that apply. 36. Sources of Water. Score all that apply. 37. One groundwater (3) 38. Precipitation (1) 39. Other groundwater (3) 30. Precipitation (1) 30. Seasonal/Intermittent surface water (3) 30. Part of inpains or upland corridor (1) 30. Maximum water depth. Select only one and assign score. 30. Maximum water depth. Select only one and assign score. 30. Variable (1) 30. 4 to 0.7m (15.7 to 27.6in) (2) 30. None or none apparent (12) 31. Recovered (7) 32. Recovering (3) 33.0 33.0 33.0 33.0 Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. 33.0 Metric 4. Habitat Paply. 35. Connectivity. Score all that apply. 36. Maximum water depth. Select only one and assign score. 37.0 38. Semi-to permanently inundated/saturated (4) 39. Seasonally inundated/saturated (3) 30. Seasonally inundated/saturated/sat	17.0 26.0 _l	Metric 3. Hydrology	'.		
3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12)	max 30 pts. subtotal 🤇	3a. Sources of Water. Score all that High pH groundwater (5) X Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surfa Perennial surface water (lal 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	ce water (3) ke or stream) (5) nly one and assign score.	x Between stream/l Part of wetland/up X Part of riparian or 3d. Duration inundation/satu X Semi- to permane Regularly inundat Seasonally inundat	in (1) lake and other human use (1) lake and other human use (1) land (e.g. forest), complex (1) lupland corridor (1) luration. Score one or dbl check. lently inundated/saturated (4) led/saturated (3) lated (2)
4a. Substrate disturbance. Score one of double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1) Recent or no recovery (1) 33.0	3	3e. Modifications to natural hydrologi None or none apparent (12 Recovered (7) X Recovering (3)	Check all disturbances obse ditch tile dike weir	rved point source (non x filling/grading road bed/RR track dredging	stormwater)
4a. Substrate disturbance. Score one of double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1) Recent or no recovery (1) 33.0	7.0 33.0	Metric 4. Habitat Al	teration and Deve	elopment.	
4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1) Recent or no recovery (1) 33.0	max 20 pts. subtotal 4	None or none apparent (4) Recovered (3) X Recovering (2)	e or double check and average.		
Recovered (6) Recovering (3) Recent or no recovery (1) 33.0 Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recovering (6) Recovering (7) Recovering (4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)			
	33.0	Recovered (6) X Recovering (3)	mowing grazing clearcutting selective cutting woody debris removal	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming	tic bed removal

Site: Wetlar	nd BN-31	Rater(s): MJA		Date: 2023-10-04
33.0	_			
0.0 33.0	Metric 5. Special W	etlands.		
max 10 pts. subtotal	Check all that apply and score as indi			
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary v Lake Erie coastal/tributary v Lake Plain Sand Prairies (0) Relict Wet Prairies (10) Known occurrence state/fec Significant migratory songb Category 1 Wetland. See (10)	vetland-unrestricted hydro vetland-restricted hydro lak Openings) (10) deral threatened or enda ird/water fowl habitat or	angered species (10)	
-1.0 32.0	Metric 6. Plant com	munities int	erspersion microto	nography
max 20 pts. subtotal	6a. Wetland Vegetation Communities	-	Community Cover Scale	opograpny.
max 20 pto. Gubtotal	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
	O Aquatic bed	1	Present and either comprises small	all part of wetland's
	1 Emergent		vegetation and is of moderate of	•
	0 Shrub		significant part but is of low qua	·
	0 Forest0 Mudflats	2	Present and either comprises sign vegetation and is of moderate of	
	0 Open water		part and is of high quality	judinity or comprised a circum
	0 Other	3	Present and comprises significan	
	6b. horizontal (plan view) Interspersion	on.	vegetation and is of high quality	1
	Select only one. High (5)	Narrativo D	asscription of Vogotation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
	Moderate (3)		disturbance tolerant native spec	
	X Moderately low (2)	mod	Native spp are dominant component	_
	Low (1)		although nonnative and/or distu	
	None (0) 6c. Coverage of invasive plants. Ref	≏r	can also be present, and species moderately high, but generally was a second control of the can be can be can also be present, and species and species are can be can also be present, and species are can also be can also be present.	•
	to Table 1 ORAM long form for list. A		threatened or endangered spp	mo procente en lare
	or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
	X Extensive >75% cover (-5)		and/or disturbance tolerant nativ	
	Moderate 25-75% cover (-3 Sparse 5-25% cover (-1))	absent, and high spp diversity a the presence of rare, threatened	•
	Nearly absent <5% cover (C))	the presence of rare, threatened	u, or endangered spp
	Absent (1)		d Open Water Class Quality	
	6d. Microtopography.	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 ac	
	Vegetated hummucks/tussCoarse woody debris >15cr		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
	o Standing dead >25cm (10ir	` '	Tright the (e.ee deree) of there	
	1 Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if of marginal quality	more common
		2	Present in moderate amounts, bu	t not of highest
		-	quality or in small amounts of h	_
		3	Present in moderate or greater ar	
22.0			and of highest quality	
ک∠.∪ GRAI	ND TOTAL (max 100 pts)			

Site: Wetland	I BN-32	Rater(s): MJA		Date: 2023-10-04
0.0 0.0	Metric 1. Wetland A	rea (size).		
max 6 pts. subtotal	Select one size class and assign scores (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2) 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < x <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
5.0 5.0	Metric 2. Upland bu	ffers and surround	ing land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. S WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 3 2b. Intensity of surrounding land use VERY LOW. 2nd growth of the control	Select only one and assign score. Em (164ft) or more around wetland po 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) arourd average <10m (<32ft) around wetlar	Oo not double check. erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) everage. dlife area, etc. (7) evervation tillage, new fallo	ow field. (3)
9.5 14.5	Metric 3. Hydrology	, •		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surfa Perennial surface water (lal 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	apply. 3b. ce water (3) ke or stream) (5) 3d. ally one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat X Seasonally inundat	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) led/saturated (3)
	X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi None or none apparent (12 Recovered (7) X Recovering (3) Recent or no recovery (1)		ck and average.	stormwater) k
6.0 20.5	Metric 4. Habitat Al	teration and Develo	opment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Recellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or of	e or double check and average.	,pment.	
20.5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland BN-32	Rater(s): MJA	Date : 2023-10-04
20.5		
subtotal first page		
$ 0.0 ^{20.5}$ Metric 5. Special W	etlands.	
max 10 pts. subtotal Check all that apply and score as ind		
Bog (10)		
Fen (10) Old growth forest (10)		
Mature forested wetland (5)	
	wetland-unrestricted hydrology (10)	
Lake Plain Sand Prairies (wetland-restricted hydrology (5) Dak Openings) (10)	
Relict Wet Prairies (10)		
	deral threatened or endangered spec	cies (10)
	oird/water fowl habitat or usage (10) Question 1 Qualitative Rating (-10)	
	quotien i quantanio italing (10)	
0.0 20.5 Metric 6. Plant com	munities, intersper	sion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communitie	•	
Score all present using 0 to 3 scale.		comprises <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed 1 Emergent		nd either comprises small part of wetland's on and is of moderate quality, or comprises a
0 Shrub	_	nt part but is of low quality
0 Forest		nd either comprises significant part of wetland's
0 Mudflats 0 Open water	_	on and is of moderate quality or comprises a small is of high quality
0 Other		nd comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersi	on. vegetation	on and is of high quality
Select only one. High (5)	Narrative Description o	f Vegetation Quality
Moderately high(4)		iversity and/or predominance of nonnative or
Moderate (3)		nce tolerant native species
Moderately low (2) X Low (1)		are dominant component of the vegetation, nonnative and/or disturbance tolerant native spp
None (0)		be present, and species diversity moderate to
6c. Coverage of invasive plants. Re		ely high, but generally w/o presence of rare
to Table 1 ORAM long form for list. A or deduct points for coverage		ed or endangered spp nance of native species, with nonnative spp
Extensive >75% cover (-5)	•	isturbance tolerant native spp absent or virtually
X Moderate 25-75% cover (-3	•	and high spp diversity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover (ence of rare, threatened, or endangered spp
Absent (1)	Mudflat and Open Wate	er Class Quality
6d. Microtopography.		0.1ha (0.247 acres)
Score all present using 0 to 3 scale. O Vegetated hummucks/tuss		<1ha (0.247 to 2.47 acres) 1 to <4ha (2.47 to 9.88 acres)
0 Coarse woody debris >15c		9.88 acres) or more
0 Standing dead >25cm (10i	, ,	
1 Amphibian breeding pools	Microtopography Cove	r Scale
	0 Absent 1 Present ve	ery small amounts or if more common
	of margi	nal quality
		moderate amounts, but not of highest
		r in small amounts of highest quality moderate or greater amounts
	and of h	ighest quality
20.5 GRAND TOTAL (max 100 pts)		·

Site: Wetland BN-33	Rater(s): MJA	Date: 2023-10-04
0.0 0.0 Metric 1. Wetland A	Area (size).	
max 6 pts. subtotal Select one size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <10 to <25 acres (4 to <10.1 to <10 to <	ore.) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)	
1.0 1.0 Metric 2 Unland by	iffers and surrounding land use.	
max 14 pts. subtotal 2a. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Do not double check. Om (164ft) or more around wetland perimeter (7) at 25m to <50m (82 to <164ft) around wetland perimeter (4) ge 10m to <25m (32ft to <82ft) around wetland perimeter (1) average <10m (<32ft) around wetland perimeter (0) average <10m (<32ft) around wetland perimeter (0) average. Or older forest, prairie, savannah, wildlife area, etc. (7) shrubland, young second growth forest. (5) sidential, fenced pasture, park, conservation tillage, new falled pen pasture, row cropping, mining, construction. (1)	
6.5 7.5 Metric 3. Hydrology	<i>1</i> .	
max 30 pts. subtotal 3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12 Recovered (7)	t apply. 3b. Connectivity. Score all 100 year floodpla Between stream/ Part of wetland/u Part of riparian or inundation/satingly one and assign score. 3d. Duration inundation/satingly one and assign score. Semi- to permane Regularly inundation Seasonally inunda	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1)
X Recovering (3) Recent or no recovery (1)	tile filling/grading dike road bed/RR trac weir dredging stormwater input X other T-line structure	
5.0 12.5 Metric 4. Habitat A	teration and Development.	
max 20 pts. subtotal 4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or	ne or double check and average.	
None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)		tic bed removal

Site: Wetland BN-33	Rater(s): MJA		Date: 2023-10-04
12.5			
subtotal first page			
0.0 12.5 Metric 5. Specia	al Wetlands.		
max 10 pts. subtotal Check all that apply and score			
Bog (10)			
Fen (10)	0)		
Old growth forest (1 Mature forested wet			
	butary wetland-unrestricted hydro	=	
	butary wetland-restricted hydrolo	gy (5)	
Relict Wet Prairies (airies (Oak Openings) (10) 10)		
Known occurrence s	state/federal threatened or endan		
	/ songbird/water fowl habitat or u		
Category I Wetland	. See Question 1 Qualitative Ra	urig (-10)	
2.0 14.5 Metric 6. Plant	communities, inte	erspersion, microto	opography.
max 20 pts. subtotal 6a. Wetland Vegetation Comi	•	ommunity Cover Scale	- p - g py.
Score all present using 0 to 3		Absent or comprises <0.1ha (0.2	
0 Aquatic bed	1	Present and either comprises sm	
1 Emergent 0 Shrub		vegetation and is of moderate of significant part but is of low qua	
0 Forest	2	Present and either comprises sig	
0 Mudflats		vegetation and is of moderate of	quality or comprises a small
Open water Other	3	part and is of high quality Present and comprises significan	at nart, or more, of wetland's
6b. horizontal (plan view) Inte		vegetation and is of high quality	
Select only one.	<u>-</u>		
High (5) Moderately high(4)	Narrative Des	scription of Vegetation Quality Low spp diversity and/or predomi	inance of poppative or
Moderate (3)	IOW	disturbance tolerant native spe	
Moderately low (2)	mod	Native spp are dominant compon	=
Low (1)		although nonnative and/or distu	
X None (0) 6c. Coverage of invasive plan	ts. Refer	can also be present, and specie moderately high, but generally	
to Table 1 ORAM long form fo		threatened or endangered spp	
or deduct points for coverage	high	A predominance of native specie	
Extensive >75% co Moderate 25-75% co	* *	and/or disturbance tolerant nati absent, and high spp diversity a	
Sparse 5-25% cove		the presence of rare, threatene	
Nearly absent <5%	· ·	Onen Meter Class Ovelity	
x Absent (1) 6d. Microtopography.	0	Open Water Class Quality Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3		Low 0.1 to <1ha (0.247 to 2.47 ac	cres)
0 Vegetated hummuc		Moderate 1 to <4ha (2.47 to 9.88	3 acres)
0 Coarse woody debri		High 4ha (9.88 acres) or more	
0 Amphibian breeding		aphy Cover Scale	
	0	Absent	
	1	Present very small amounts or if of marginal quality	more common
	2	Present in moderate amounts, bu	ut not of highest
		quality or in small amounts of h	ighest quality
	3	Present in moderate or greater a	mounts
14.5 GRAND TOTAL (max 100	nts)	and of highest quality	
SIV "15 SIVE (IIIAX 100	P.~/		





Stream ID: Stream BN-01

Stream Name: Clear Fork

Designation: Warm Water Habitat







Downstream



Stream ID: Stream BN-08

Stream Name: Standingstone Fork

Designation: Warm Water Habitat





Upstream

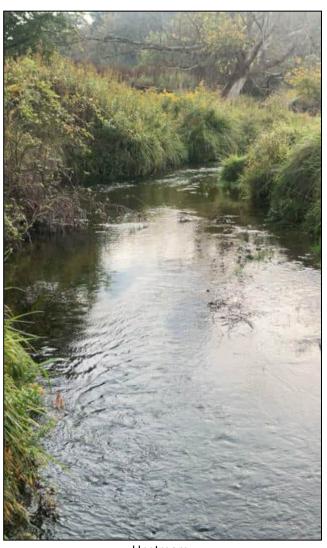
Downstream



Stream ID: Stream BN-16

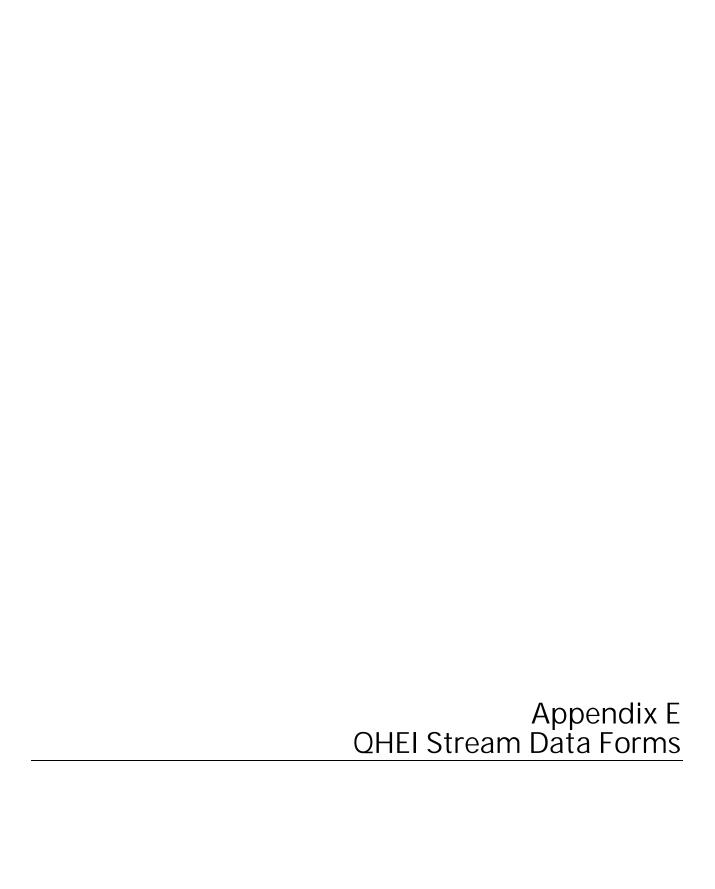
Stream Name: Brushy Fork

Designation: Warm Water Habitat





Upstream Downstream

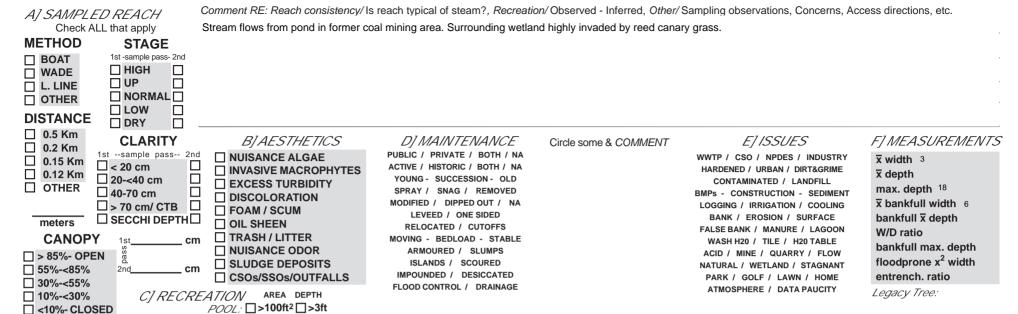




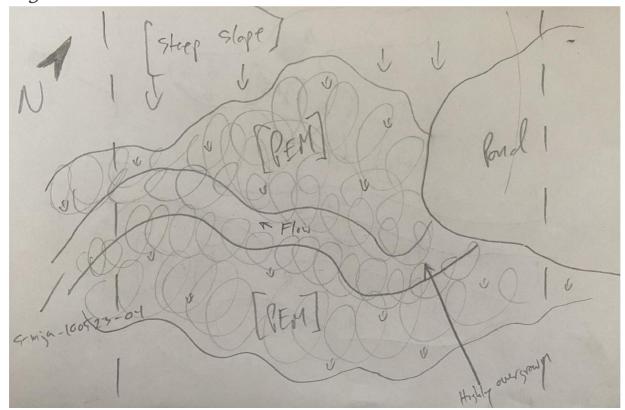
Qualitative Habitat Evaluation Index and Use Assessment Field Sheet



	Buckeye Power-Nottingham	<i>RM:</i>	<i>Date:</i> 10/5/23
S-MJA-100523-04		lame & Affiliation: MJA	Jacobs
River Code:	STORET#:Lat./	(LONG.: 40.21212 / -8	1.05757 Office verified location □
1] SUBSTRATE Check ONLY Two sub-	strate TYPE BOXES;	Check ONE (Or 2	
estimate % or note even	OTLIED TYPES	ORIGIN	QUALITY
□ BLDR /SLABS [10] □ BOULDER [9] □ COBBLE [8] 5 5 60	HARDPAN [4] 20 20 DETRITUS [3] 25 15 SILT [2] 25 15 Score natural substrates; ignore r more [2] Sludge from point-sources) r less [0]		HEAVY [-2] MODERATE [-1] Substrate
Ol WASTER AND CONTROL Disches Process	noo O to 2: O Aboont: 4 Vanconall om	austa ar if mara samman of mara	singl
quality; 3-Highest quality in moderate or gradiameter log that is stable, well developed 1 UNDERCUT BANKS [1] 3 OVERHANGING VEGETATION [1] 1 SHALLOWS (IN SLOW WATER) [1] 1 ROOTMATS [1]	lerate amounts, but not of highest qual eater amounts (e.g., very large boulde rootwad in deep / fast water, or deep, 0 POOLS > 70cm [2] 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	lity or in small amounts of highes ers in deep or fast water, large	AMOUNT Check ONE (Or 2 & average) EXTENSIVE >75% [11] MODERATE 25-75% [7] SPARSE 5-<25% [3] NEARLY ABSENT <5% [1] Cover Cover
Comments			Maximum 13.0
Abundant overhanging reed canary grass 3] CHANNEL MORPHOLOGY Check	k ONE is each cotogon (Or 2.8 aver	200)	
SINUOSITY HIGH [4] MODERATE [3] LOW [2] NONE [1] Comments DEVELOPMENT EXCELLENT [7] SHOW [5] FAIR [3] POOR [1]	CHANNELIZATION NONE [6] RECOVERED [4] RECOVERING [3] RECENT OR NO RECOVERY [STABILITY HIGH [3] MODERATE [2] LOW [1]	Channel Maximum 20
AL PANK EDOSION AND DIDADI			
	11/ ZONE Chack ONE in each cated	onutor EACH PANKIOr 2 por ba	unk & avorago)
	AN ZONE Check ONE in each categ		nk & average)
River right looking downstream RIPAF	RIAN WIDTH	OD PLAIN QUALITY WAMP [3] OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1]	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian
RIPAR EROSION	RIAN WIDTH	OD PLAIN QUALITY SWAMP [3] R OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1]	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian Maximum
RIPAR EROSION WIDE > NONE / LITTLE [3] MODER X MODERATE [2] NARRO X HEAVY / SEVERE [1] VERY N Comments Stream flows through palustrine emergent with the series of the ser	RIAN WIDTH 50m [4] EATE 10-50m [3] W 5-10m [2] EARROW < 5m [1] PENCED P OPEN PAS	OD PLAIN QUALITY SWAMP [3] R OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1]	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian
RIPAR EROSION NONE / LITTLE [3] MODERATE [2] HEAVY / SEVERE [1] Comments Stream flows through palustrine emergent with the component of	RIAN WIDTH 50m [4] RATE 10-50m [3] W 5-10m [2] ARROW < 5m [1] OPEN PAS Wetland WUN QUALITY NNEL WIDTH BE (Or 2 & average) H > RIFFLE WIDTH [2] TORRENT H < RIFFLE WIDTH [1] MODERA	OD PLAIN QUALITY SWAMP [3] R OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1]	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian Maximum 10 Recreation Potential Primary Contact Secondary Contact (circle one and comment on back)
RIPAL REROSION ROBERT WIDE > NONE / LITTLE [3] MODER NONE / LITTLE [3] VERY NONE / LITTLE / REPORT NONE / L	RIAN WIDTH 50m [4] RATE 10-50m [3] W 5-10m [2] ARROW < 5m [1] OPEN PAS Wetland WUN QUALITY NNEL WIDTH BE (Or 2 & average) H > RIFFLE WIDTH [2] H < RIFFLE WIDTH [1] MODERA Indicate	OD PLAIN QUALITY WAMP [3] R OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1] TURE, ROWCROP [0] RRENT VELOCITY heck ALL that apply FIAL [-1] ST [1] INTERSTITIAL [-1] INTERMITTENT [-2] TE [1] For reach - pools and riffles.	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian Maximum 10 Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) Pool / Current Maximum 12 Sation
RIPAL ROSION NONE / LITTLE [3] MODERATE [2] NONE [Comments Stream flows through palustrine emergent with particular partic	RIAN WIDTH 50m [4] STATE 10-50m [3] W 5-10m [2] W 5-10m [2] W FENCED P O] Wetland WETLAN WETL	OD PLAIN QUALITY WAMP [3] R OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1] TURE, ROWCROP [0] RENT VELOCITY THE CALL that apply FIAL [-1] INTERMITTENT [-2] TO reach - pools and riffles. FIELD [2] TO RESTRATE RIFFLE / R ILE, Boulder) [2] Large Gravel) [1] Le Gravel, Sand) [0]	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian Maximum 10 Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) Pool / Current Maximum 12 NO RIFFLE [metric=0]
RIPAF EROSION NONE / LITTLE [3] MODERATE [2] NONE [Comments Stream flows through palustrine emergent with part of the p	RIAN WIDTH 50m [4] Som [4] W 5-10m [2] ARROW < 5m [1] Wetland WUN QUALITY NNEL WIDTH BE (0r 2 & average) H > RIFFLE WIDTH [2] H < RIFFLE WIDTH [1] Wend Modera Indicate Check ONE (0r 2 & average) REPTH RIFFLE / RUN S STABLE (e.g., Cobble 1) STABLE (e.g., Cobble 1) REFOREST, S RESIDENT RESIDENT FENCED P OPEN PAS CUF TORRENT H < RIFFLE WIDTH [0] FAST [1] MODERA Indicate	OD PLAIN QUALITY WAMP [3] R OLD FIELD [2] IAL, PARK, NEW FIELD [1] ASTURE [1] TURE, ROWCROP [0] RENT VELOCITY THE CALL that apply FIAL [-1] INTERMITTENT [-2] TO reach - pools and riffles. FIELD [2] TO RESTRATE RIFFLE / R ILE, Boulder) [2] Large Gravel) [1] Le Gravel, Sand) [0]	CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0] ate predominant land use(s) 100m riparian. Riparian Maximum 10 Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) Avaimum 12 NO RIFFLE [metric=0] UN EMBEDDEDNESS NONE [2] LOW [1] MODERATE [0] EXTENSIVE [-1] Maximum 8 3.0



Stream Drawing: Stream BN-25





Upstream



Substrate



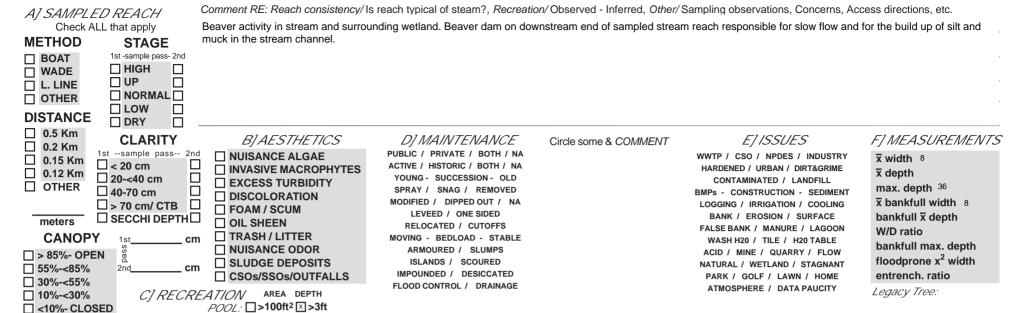
Downstream



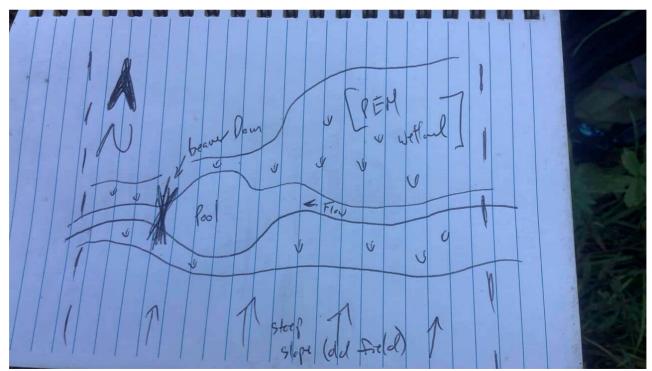
Qualitative Habitat Evaluation Index and Use Assessment Field Sheet



Stream & Location: Stream BN-26	Buckeye Power-Nottingham	<i>RM:</i>	<i>Date:</i> 10/3/23
S-MJA-100323-01	Scorers Full Name & Affilia	ation: MJA	Jacobs
River Code. 0504-0001-1402	STORET#: Lat./Long.: 40.205		Office verified location
1] SUBSTRATE Check ONLY Two subs	strate TYPE BOXES;		
estimate % or note eve	OTHER TYPES POOL RIFFLE ORIGI	Check ONE (<i>Or 2 & average</i> N	e) QUALITY
□ □ BOULDER [9] [□ □ COBBLE [8] [□ □ GRAVEL [7] [HARDPAN [4]	S[0] SILT MO S[0] NC [0] FF NE [0] DECU E E	EAVY [-2] DDERATE [-1] DRMAL [0] REE [1] TTENSIVE [-2] DDERATE [-1] Maximum
NUMBER OF BEST TYPES: 4 or	more [2] sludge from point-sources) LACUSTUF	KINE [0] MO	ORMAL [0] Maximum 20
Comments 3 or	less [0] SHALE [-1]	NO D	ONE [1]
Beaver dams responsible for slow flow and		:5 [-2]	
guality: 2-Mod	nce 0 to 3: 0 -Absent; 1-Very small amounts or if more erate amounts, but not of highest quality or in small an eater amounts (e.g., very large boulders in deep or fas rootwad in deep / fast water, or deep, well-defined, fur $\frac{3}{1} \begin{array}{c c} \textbf{POOLS} > \textbf{70cm} \ [2] & 2 \\ \hline 1 & \textbf{ROOTWADS} \ [1] & 1 \\ \hline 0 & \textbf{BOULDERS} \ [1] & 1 \\ \hline \end{array} \begin{array}{c c} \textbf{OXBOWS}, \textbf{BACI} \\ \textbf{AQUATIC MACF} \\ \textbf{LOGS OR WOO} \end{array}$	mounts of highest st water, large check (nctional pools. EXTE KWATERS [1] MODIROPHYTES [1] SPAR	AMOUNT ONE (Or 2 & average) INSIVE >75% [11] ERATE 25-75% [7] ISE 5-<25% [3] RLY ABSENT <5% [1] Cover Maximum 20 16.0
21 CHANNEL MORRHOLOCVChoc	k ONE in each category (Or 2.8 average)		
3] CHANNEL MORPHOLOGY Check SINUOSITY DEVELOPMENT HIGH [4] EXCELLENT [7] MODERATE [3] GOOD [5] LOW [2] FAIR [3] NONE [1] POOR [1] Comments	CHANNELIZATION STABILI NONE [6] HIGH [3] RECOVERED [4] MODERA RECOVERING [3] LOW [1] RECENT OR NO RECOVERY [1]		Channel 7.0
41 BANK EROSION AND RIPARIA	AN ZONE Check ONE in each category for EACH B	ANK (Or 2 per bank & avera	ge)
	RIAN WIDTH LR FLOOD PLAIN C	L R	
	50m [4]		RVATION TILLAGE [1] OR INDUSTRIAL [0]
☐ ☐ MODERATE [2] ☐ ☐ NARRO	W 5-10m [2] ☐ ☐ RESIDENTIAL, PARK, NEW		CONSTRUCTION [0]
☐ HEAVY / SEVERE [1] ☐ VERY N ☐ NONE [6]	ARROW < 5m [1]	Indicate predon past 100m ripal	ninant land use(s)
Comments	L L OFEN PASTURE, NOWER	past 10011 lipai	rian. Riparian Maximum 10
Check ONE (ONLY!) Check ON ☑ > 1m [6] ☑ POOL WIDTH ☐ 0.7-<1m [4]	NNEL WIDTH IE (Or 2 & average) H > RIFFLE WIDTH [2] H = RIFFLE WIDTH [1] UVERY FAST [1] UNIT CURRENT VELO Check ALL that ap TORRENTIAL [-1] UVERY FAST [1] UVERY FAST [1]	poply DW [1] Second (circle of the control of the c	eation Potential imary Contact ondary Contact ne and comment on back) Pool/ Current Maximum 12
	Best areas must be large enough to sup	pport a population	
of riffle-obligate species:	Check ONE (Or 2 & average).		□ NO RIFFLE [metric=0]
RIFFLE DEPTH RUN D □ BEST AREAS > 10cm [2] □ MAXIMUM	EPTH RIFFLE / RUN SUBSTRATE 1 > 50cm [2] STABLE (e.g., Cobble, Boulder) [2]		
☐ BEST AREAS 5-10cm [1] ☐ MAXIMUM	I < 50cm [1] ☐ MOD. STABLE (e.g., Large Gravel)	[1] \text{LOW [1]}	
BEST AREAS < 5cm [metric=0]	☑ UNSTABLE (e.g., Fine Gravel, Sand)) [0] MODERA	TE [0] Riffle / 0.0
Comments		△ EXTENSI	VE [-1] Run Maximum 0.0
6] GRADIENT (84.1 ft/mi) □ VEF	RY LOW - LOW [2-4] %POOL : (3	30 %GLIDE: 60	
DRAINAGE AREA O MO	DERATE [6-10]	%GLIDE:(60 5 %RIFFLE:(5	Gradient Maximum 10 4.0



Stream Drawing: Stream BN-26



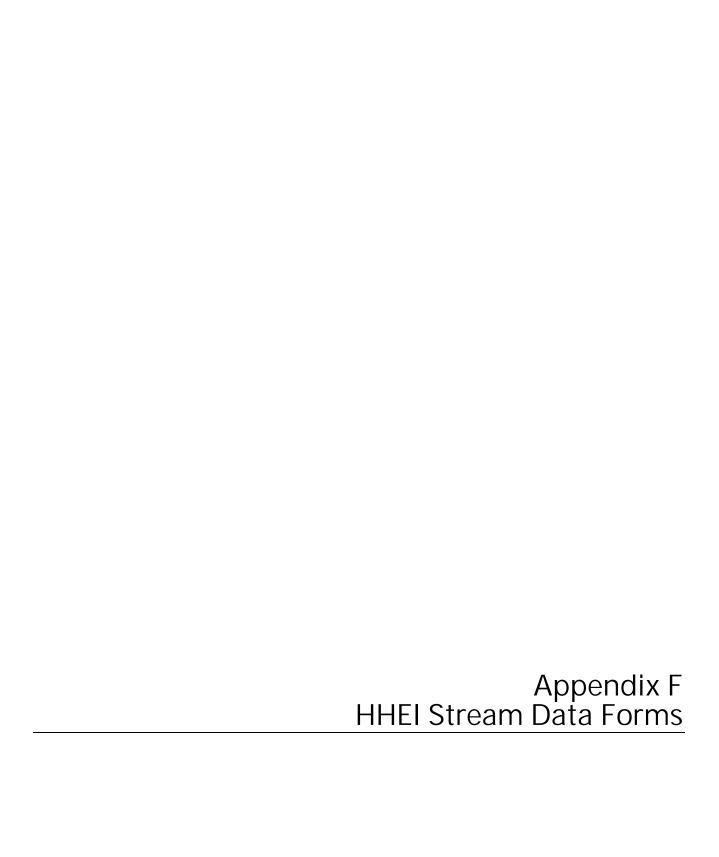




Upstream Downstream



Substrate



Protection Agency

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

36		36
----	--	----

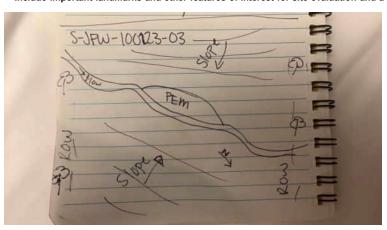
Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	_
SITE NAME/LOCATION Stream BN-02 Buckeye Powe	r-Nottingham	
SITE NUMBER <u>S-JFW-100223-0</u> 3 RIVER BASIN <u>05040001</u>	RIVER CODE DRAINAGE AREA (mi²) 0.01	_
LENGTH OF STREAM REACH (ft) 140 LAT 40.31851	LONG <u>-81.06570</u> RIVER MILE	
DATE 10/02/2023 SCORER JFW COMME	NTS	
NOTE: Complete All Items On This Form - Refer to "He	adwater Habitat Evaluation Index Field Manual" for Instruction	ns
STREAM CHANNEL MODIFICATIONS: NONE / NATURA	AL CHANNEL RECOVERED X RECOVERING RECENT OR NO RECO	OVERY
(Max of 32). Add total number of significant substrate ty 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] Total of Percentages of	tt). Check ONLY two predominant substrate TYPE boxes. pes found (Max of 8). Final metric score is sum of boxes A & B YPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	eric nts etrate = 40
Bldr Slabs, Boulder, Cobble, Bedrock 30 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	12 TOTAL NUMBER OF SUBSTRATE TYPES: 4 A+	В
2. Maximum Pool Depth (Measure the maximum pool of time of evaluation. Avoid plunge pools from road culvert > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	Pool [Sor storm water pipes] (Check ONLY one box): X	= 30
COMMENTS	20	
	MAXIMUM POOL DEPTH (inches): 3.0	
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 - > 4.0 meters (> 13') [30 pts]	MAXIMUM POOL DEPTH (inches): 3.0 4 measurements) (Check <i>ONLY</i> one box):	kfull lth
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 -	MAXIMUM POOL DEPTH (inches): 3.0 4 measurements) (Check <i>ONL</i> Y one box):	kfull lth =30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 - > 4.0 meters (> 13') [30 pts]	MAXIMUM POOL DEPTH (inches): 3.0 4 measurements) (Check <i>ONLY</i> one box):	kfull lth =30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 - > 4.0 meters (> 13') [30 pts]	MAXIMUM POOL DEPTH (inches): 3.0 4 measurements) (Check <i>ONLY</i> one box): □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] □ × 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 2.0 ation must also be completed	kfull lth =30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 - > 4.0 meters (> 13') [30 pts]	MAXIMUM POOL DEPTH (inches): 4 measurements) (Check ONLY one box): 3.0 4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] × 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 2.0 Average Bankfull Width (feet): **NOTE: River Left (L) and Right (R) as looking downstream ★	kfull lth =30
COMMENTS	MAXIMUM POOL DEPTH (inches): 3.0 4 measurements) (Check <i>ONLY</i> one box): □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] □ × 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 2.0 ation must also be completed	kfull lth =30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3	MAXIMUM POOL DEPTH (inches): 4 measurements) (Check ONLY one box):	kfull lth =30
COMMENTS SANK 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 This inform RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOOD L R (Per Bank) L R Mature Moderate 5-10m Mature Moderate 5-10m Resing Narrow <5m Resing Resing Resing Resing Resing Resing Resing Subsurface flow with isolated pools (interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) None 1.0 1.5 1.5	MAXIMUM POOL DEPTH (inches): 4 measurements) (Check ONLY one box):	kfull lth =30
COMMENTS	MAXIMUM POOL DEPTH (inches): 4 measurements) (Check ONL Y one box):	kfull lth =30

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 0.73 miles
☐ CWH Name:	Distance from Evaluated Stream
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Archer
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipita	tion: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg/	I) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{No}	D If not, explain:
Reach is within maintained ROW	
Additional comments/description of pollution impacts:	
(Record all	L OBSERVATIONS observations below)
Fish Observed? (Y/N) No Species observed (if known)	
	ed (if known):
Salamanders Observed? (Y/N) No Species observed (if	known):
Aquatic Macroinvertebrates Observed? (Y/N) \underline{No} Specie	s observed (if known):
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



Ephemeral stream in valley bottom flowing through transmission line ROW with PEM wetland on portion of banks



May 2020 Revision Page 2



Upstream



Substrate



Downstream

5 hio
Ohio Environmental
Protection Agency

Headwater Habitat Evaluation Index Field Form

11

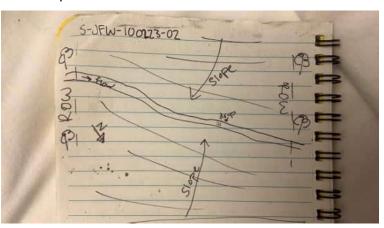
Ohio Environmental Protection Agency		HHEI Score (sur	n of metrics 1+2+3)	11
SITE NAME/LOCATION Stream BN-03	Buckeye Power-Nott	ingham		
SITE NUMBER S-JFW-100223-02 RIVER BASI	N 05040001	RIVER CODE	_ DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 156				
DATE 10/02/2023 SCORER JFW	COMMENTS _			
NOTE: Complete All Items On This Fo	rm - Refer to "Headwa	nter Habitat Evaluation Ir	ndex Field Manual" for Ins	tructions
STREAM CHANNEL MODIFICATIONS:	NONE / NATURAL CHA	ANNEL RECOVERED X	RECOVERING RECENT OR	NO RECOVER
			_	
1. SUBSTRATE (Estimate percent of (Max of 32). Add total number of signature of the control of t	gnificant substrate types for PERCENT TYPE	SILT [3 pt] LEAF PACK/WOODY DEI FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts]	BRIS [3 pts] 50	HHEI Metric Points Substrate Max = 40
SAND (<2 mm) [6 pts]		ARTIFICIAL [3 pts]		
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE S		TOTAL NUMBER OF S	(B) 3	A + B
2. Maximum Pool Depth (<i>Measure t</i>				Pool Depti
time of evaluation. Avoid plunge po > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		torm water pipes) (Check 5 cm - 10 cm [15 pts] < 5 cm [5pts]	CHANNEL [0pts]	Max = 30
COMMENTS		MAXIMUM PO	OL DEPTH (inches): 0.0	
3. BANK FULL WIDTH (Measured as	s the average of 3 - 4 me	asurements) (Check ONL	Yone box):	Bankfull
> 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 p		> 1.0 m - 1.5 m (> 3' 3" - ≤ 1.0 m (≤ 3' 3") [5 pts]	4' 8")[15 pts]	Width Max=30
COMMENTS		AVERAGE BANK	KFULL WIDTH (feet): 2.0	5
		must also be completed		
RIPARIAN ZONE AND FLO	ODPLAIN QUALITY *	NOTE: River Left (L) and Rig	ht (R) as looking downstream	k
<u>RIPARIAN WIDTH</u> I R (Per Bank)	· · · · · · · · · · · · · · · · · · ·	AIN QUALITY (Most Predomi	' '	
L R (Per Bank) Wide >10m Moderate 5-10m X Narrow <5m None	XX Immature	rest, Wetland Forest, Shrub or Old Field II, Park, New Field	Conservation Tillage Urban or Industrial Open Pasture, Row C Mining or Construction	
COMMENTS				<u> </u>
FLOW REGIME (At Time of Stream Flowing Subsurface flow with isolated COMMENTS		LY one box): Moist Channel, is Dry channel, no w	olated pools, no flow (intermitt vater (ephemeral)	ent)
SINUOSITY (Number of ber None S 0.5 STREAM GRADIENT ESTIMATE	nds per 61 m (200 ft) of ch 1.0 1.5	annel) (Check ONLY one bo	0x): 3.0 >3	
Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100	ft) Moderate to Se	vere 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)	
	Distance from Evaluated Stream 0.91 miles
	Distance from Evaluated Stream
LI 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: <u>Jewett</u>	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Archer
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation	ation: 9/29/23 Quantity: 0.32
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	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{N}	O If not, explain:
Maintained ROW	
Additional comments/description of pollution impacts:	
·	AL OBSERVATIONS I observations below)
Fish Observed? (Y/N) No Species observed (if known	n):
	ved (if known):
Salamanders Observed? (Y/N) No Species observed (if	f known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species	es observed (if known):
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



Ephemeral poorly defined stream through transmission line ROW



May 2020 Revision Page 2





Downstream Upstream



Substrate

hio Ohio Environmental Protection Agency

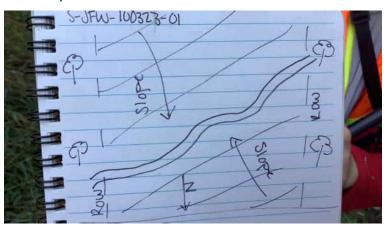
10

Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)	10
SITE NAME/LOCATION Stream BN-04 Buckeye Power-Nottingham SITE NUMBER S-JFW-100323-01 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) LENGTH OF STREAM REACH (ft) 150 LAT 40.30535 LONG -81.06622 RIVER MILE DATE 10/03/2023 SCORER JFW COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OF THE POWER O	Instructions
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 & E 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] GRAVEL (2-64 mm) [9 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock BEDROCK [0 pts] ARTIFICIAL [3 pts] Total NUMBER OF SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40 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): > 30 centimeters [20 pts]	Pool Depth Max = 30
	'II ——
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check <i>ONL</i> Y one box): > 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull Width Max=30 5
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): > 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	Bankfull Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
	Distance from Evaluated Stream 0.88 miles
	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: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Archer
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation	ation: 9/29/23 Quantity: 0.32
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	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{N}	O If not, explain:
Reach is in maintained t-line ROW	
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS I observations below)
· ·	,
	n):
	ved (if known):
Salamanders Observed? (Y/N) NO Species observed (if	f known):
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	es observed (if known):
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



Ephemeral stream in valley bottom flowing through transmission line ROW





Upstream



Downstream



Substrate

Thio

Headwater Habitat Evaluation Index Field Form

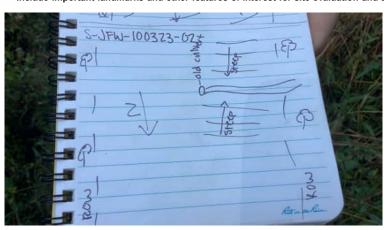
10

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)
SITE NAME/LOCATION Stream BN-05 Buckey	re Power-Nottingham
	RIVER CODE DRAINAGE AREA (mi²) 0.01
	.30393 LONG -81.06640 RIVER MILE
DATE 10/03/2023 SCORER JFW C	
	to "Headwater Habitat Evaluation Index Field Manual" for Instructions
	NATURAL CHANNEL RECOVERED X RECOVERING RECENT OR NO RECOVERY
(Max of 32). Add total number of significant substance TYPE PERCENT	present). Check ONLY two predominant substrate TYPE boxes. strate types found (Max of 8). Final metric score is sum of boxes A & B TYPE SILT [3 pt] SILT [3 pt] SILEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts] 5 HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 SCORE OF TWO MOST PREDOMINATE SUBSTRATE	(A) TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 2 A + B
2. Maximum Pool Depth (Measure the maximum time of evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	5 cm - 10 cm [15 pts]
> 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 > 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	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):
	Sinformation must also be completed RUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R Mature Forest, Wetland
FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (inters	Moist Channel, isolated pools, no flow (intermittent)
STREAM GRADIENT ESTIMATE	odorato (0.00000)
Flat (0.5 ft/100 ft) Flat to Moderate Mo	derate (2 ft/100 ft) X Moderate to Severe Severe (10 ft/100 ft)

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.8 miles	
	Distance from Evaluated Stream	
EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>entire</u> watershed area. Clearly mark the site location.	
USGS Quadrangle Name: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Archer	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipita	tion: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0	
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) \underline{Nc}	D If not, explain:	
Stream continues outside maintained t-line ROW		
Additional comments/description of pollution impacts:		
	L OBSERVATIONS 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) $\underline{\text{No}}$ Specie	s observed (if known):	
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



Ephemeral stream in valley bottom that begins at a very old nonfunctioning culvert in a tline ROW





Downstream



Substrate Culvert present



Upstream

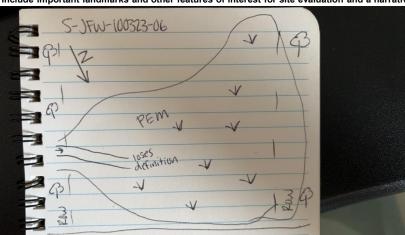
Chio Environmental Protection Agency

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	19
SITE NAME/LOCATION Stream BN-06 Buckeye Power-N SITE NUMBER S-JFW-100323-06 RIVER BASIN 05040001 LENGTH OF STREAM REACH (ft) 51 LAT 40.30020 DATE 10/03/2023 SCORER JFW COMMENTS NOTE: Complete All Items On This Form - Refer to "Heads"	RIVER CODE DRAINAGE AREA (mi²) <u>0.</u> LONG <u>-81.06655</u> RIVER MILE	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL C	CHANNEL X RECOVERED RECOVERING RECENT OR I	NO RECOVERY
TYPE PERCENT TYPI □ □ 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]	found (Max of 8). Final metric score is sum of boxes A & B	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	TOTAL NUMBER OF SUBSTRATE TYPES: 3	A + B
2. Maximum Pool Depth (Measure the maximum pool deptime of evaluation. Avoid plunge pools from road culverts o > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		Pool Depth Max = 30
COMMENTS	10	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 m > 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]	MAXIMUM POOL DEPTH (inches): 1.0 neasurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts]	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 m > 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	MAXIMUM POOL DEPTH (inches): 1.0 neasurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 m > 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 This informati RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R X X Wide >10m X X Mature Moderate 5-10m Immature Narrow <5m Residen None Fenced	MAXIMUM POOL DEPTH (inches): 1.0 neasurements	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 m > 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 This informati RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) L R (Per Bank) L R Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m Residen None COMMENTS FLOW REGIME (At Time of Evaluation) (Check Of Stream Flowing Subsurface flow with isolated pools (interstitial) COMMENTS	MAXIMUM POOL DEPTH (inches): 1.0 1.0	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 m > 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 This informati RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) L R X X Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check Of Stream Flowing) Subsurface flow with isolated pools (interstitial)	MAXIMUM POOL DEPTH (inches): 1.0 1.0 1.0 measurements (Check ONLY one box): 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m (≤ 3' 3") [5 pts] 1.0 m (≤ 3' 3") [5 pts] 1.0 1.0 must also be completed NOTE: River Left (L) and Right (R) as looking downstream PLAIN QUALITY (Most Predominant per Bank) L R Forest, Wetland Conservation Tillage Tree Forest, Shrub or Old Field Urban or Industrial Tree Forest, Shrub or Old Field Open Pasture, Row Construction Pasture Moist Channel, isolated pools, no flow (intermitted Dry channel, no water (ephemeral) Channel (Check ONLY one box): 2.0	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Standingstone Fork CWH Name: EWH Name:		tream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SI	ITE LOCATION.
USGS Quadrangle Name: <u>Jewett</u>	NRCS Soil Map Page:NRCS Soil Map S	Stream Order:
County: Harrison	Township/City: Archer	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipit	ation: 9/28/23 Quantity: 0.32	
Photo-documentation Notes:		
ElevatedTurbidity?(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 (un	nhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{\underline{Y}}$	es If not, explain:	
Additional comments/description of pollution impacts:		
	AL OBSERVATIONS observations below)	
Fish Observed? (Y/N) No Species observed (if known):	
Frogs or Tadpoles Observed? (Y/N) No Species observed		
Salamanders Observed? (Y/N) No Species observed (i	known):	
Aquatic Macroinvertebrates Observed? (Y/N) No Special	es observed (if known):	
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



Ephemeral stream that loses definition as it flows into PEM wetland





Upstream



Substrate



Downstream

hio Ohio Environmental Protection Agency

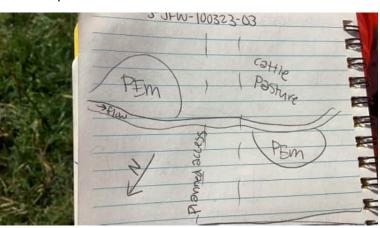
25

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	
SITE IVAME/ESS/TISI	wer-Nottingham	
SITE NUMBER S-JFW-100323-03 RIVER BASIN 05040001	RIVER CODE DRAINAGE AREA (mi²) 0.28	3
	2 LONG -81.06874 RIVER MILE	
DATE 10/03/2023 SCORER JFW COMM	MENTS	
NOTE: Complete All Items On This Form - Refer to "I	Headwater Habitat Evaluation Index Field Manual" for Instr	uctions
STREAM CHANNEL MODIFICATIONS: NONE / NATU	JRAL CHANNEL RECOVERED X RECOVERING RECENT OR NO) RECOVERY
(Max of 32). Add total number of significant substrate 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] Total of Percentages of	LEAF PACKWOODY DEBRIS [3 pts]	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPE	(A) 3 TOTAL NUMBER OF SUBSTRATE TYPES: 2	A + B
time of evaluation. Avoid plunge pools from road culv > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	verts or storm water pipes) (Check ONLY one box): X	Pool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (inches): 3.0	
3. BANK FULL WIDTH (Measured as the average of	WIAXIMOW FOOL DEFIN (Inches).	Bankfull
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of	3 - 4 measurements) (Check ONLY one box):	Width Max=30
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]	3 - 4 measurements) (Check <i>ONLY</i> one box): □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] □ ≤ 1.0 m (≤ 3' 3")[5 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONL</i> Y one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] X ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): Try	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): Domation must also be completed ITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ OODPLAIN QUALITY (Most Predominant per Bank) L R ature Forest, Wetland mmature Forest, Shrub or Old Field mmature Forest, Shrub or Old Field cesidential, Park, New Field cenced Pasture Mining or Construction Moist Channel, isolated pools, no flow (intermittent)	Width Max=30
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 This info RIPARIAN ZONE AND FLOODPLAIN QUAL RIPARIAN WIDTH FL L R (Per Bank) L R Wide >10m	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): DITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ CODPLAIN QUALITY (Most Predominant per Bank) L R ature Forest, Wetland mature Forest, Shrub or Old Field esidential, Park, New Field conced Pasture Mining or Construction Moist Channel, isolated pools, no flow (intermittent of the property) Moist Channel, no water (ephemeral)	Width Max=30
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	3 - 4 measurements (Check ONLY one box):	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☐ No QHEI Score _	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.00 miles	
	Distance from Evaluated Stream	
☐ EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING TH	E <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: <u>Jewett</u>	NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Harrison T	ownship/City: Cadiz	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	on: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No 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:		
	OBSERVATIONS servations 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) $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	observed (if known):	
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



Intermittent channelized stream flowing through a cattle pasture





Upstream



Substrate



Downstream

Ohio Environmental Protection Agency

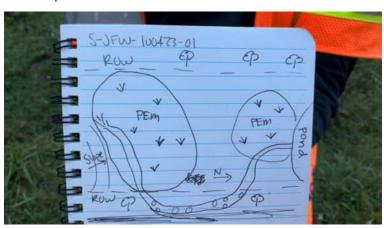
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Protection Agency	HHEI Score (sum of metrics 1+2+3)	10
SITE NAME/LOCATION Stream BN-09 Buckeye Power-Nott SITE NUMBER S-JFW-100423-01 RIVER BASIN 05040001 LENGTH OF STREAM REACH (ft) 200 LAT 40.28777 DATE 10/04/2023 SCORER JFW COMMENTS - NOTE: Complete All Items On This Form - Refer to "Headward	. RIVER CODE DRAINAGE AREA (mi²) 0.1	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHA	NNEL RECOVERED X RECOVERING RECENT OR N	O RECOVERY
1. SUBSTRATE (Estimate percent of every type present). Chr (Max of 32). Add total number of significant substrate types for type PERCENT TYPE PERCENT TYPE SUBJUTE S		HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	TOTAL NUMBER OF SUBSTRATE TYPES: 3	A + B
2. Maximum Pool Depth (Measure the <u>maximum</u> pool depth time of evaluation. Avoid plunge pools from road culverts or s > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	torm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	Pool Depth Max = 30
_		
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measured as t	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measured as t	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 1.0 must also be completed	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measured as t	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 1.0 must also be completed NOTE: River Left (L) and Right (R) as looking downstream ★ AIN QUALITY (Most Predominant per Bank) L R Conservation Tillage Forest, Wetland Conservation Tillage Urban or Industrial Park, New Field Qpen Pasture, Row Cr	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measured as t	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measured as t	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet):	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
	Distance from Evaluated Stream 0.31 miles
	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING 1	HE <u>entire</u> watershed area. Clearly mark the site location.
USGS Quadrangle Name: <u>Jewett</u>	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation	tion: <u>9/29/23</u> Quantity: <u>0.32</u>
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0
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) Ye	S If not, explain:
, ,	· ·
Additional comments/description of pollution impacts:	
	L OBSERVATIONS observations below)
Fish Observed? (Y/N) No Species observed (if known)	:
Frogs or Tadpoles Observed? (Y/N) No Species observ	ed (if known):
Salamanders Observed? (Y/N) $\underline{\text{No}}$ Species observed (if	known):
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	s observed (if known):
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



Ephemeral stream surrounded by PEM wetland that flows into man-made pond





Downstream



Substrate



Upstream

Chio Environmental Protection Agency

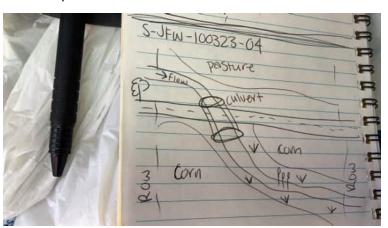
31
O 1

Ohio Ervironmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	31
SITE NAME/LOCATION Stream BN-10 Buckeye Power-Not SITE NUMBER S-JFW-100323-04 RIVER BASIN 05040001 LENGTH OF STREAM REACH (ft) 156 LAT 40.27698 DATE 10/03/2023 SCORER JFW COMMENTS. NOTE: Complete All Items On This Form - Refer to "Headw	RIVER CODE DRAINAGE AREA (mi²) 0 LONG -81.06959 RIVER MILE	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CH		
1. SUBSTRATE (Estimate percent of every type present). C (Max of 32). Add total number of significant substrate types for type 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] Total of Percentages of		HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9	TOTAL NUMBER OF SUBSTRATE TYPES: 2	A + B
2. Maximum Pool Depth (Measure the maximum pool depth time of evaluation. Avoid plunge pools from road culverts or some solution of solution and solution in the solution of the solution of solution in the solution of solution of solution in the solution of s	storm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	Pool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (inches): 3.0	
COMMENTS BANK FULL WIDTH (Measured as the average of 3 - 4 me > 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	MAXIMOW FOOL DEFTH (Inches).	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 me > 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 This informatio	Seasurements (Check ONL Y one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] \(\leq 1.0 m (\leq 3' 3")[5 pts] \)	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 me	AIN QUALITY (Most Predominant per Bank) L R AIN QUALITY (Most Predominant per Bank) L R Profest, Wetland Profest (Note: Shrub or Old Field Conservation Tillage and perst, New Field Copen Pasture, Row Copen Pastur	Width Max=30 5
3. BANK FULL WIDTH (Measured as the average of 3 - 4 me	Check ONL Y one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 me > 4.0 meters (> 13') [30 pts]	Seasurements (Check ONLY one box):	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
	Distance from Evaluated Stream 0.08 miles
☐ CWH Name:	Distance from Evaluated Stream
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipita	tion: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): No Canopy (% open): 8	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) Ye	S If not, explain:
	,
Additional comments/description of pollution impacts:	
	L OBSERVATIONS observations below)
Fish Observed? (Y/N) No Species observed (if known)	:
Frogs or Tadpoles Observed? (Y/N) No Species observ	ed (if known):
Salamanders Observed? (Y/N) No Species observed (if	known):
Aquatic Macroinvertebrates Observed? (Y/N) $\underline{\text{No}}$ Specie	s observed (if known):
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



Intermittent channelized stream flowing between ag fields and culverted under a road





Downstream



Substrate



Upstream

Ohio Environmental Protection Agency

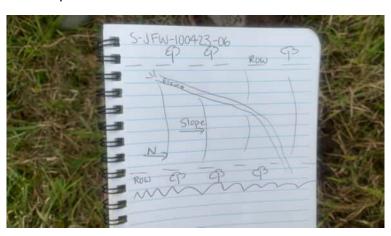
15

Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)	15
SITE NAME/LOCATION_Stream BN-11 Buckeye Power-Nottingham SITE NUMBER S-JFW-100423-06 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) LENGTH OF STREAM REACH (ft) 159 LAT 40.27488 LONG -81.06969 RIVER MILE DATE 10/04/2023 SCORER JFW COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for I	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT C	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] 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] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) 2	HHEI Metric Points Substrate Max = 40 5
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 2	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] X < 5 cm [5pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0pts] COMMENTS MAXIMUM POOL DEPTH (inches):	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30
COMMENTS AVERAGE BANKFULL WIDTH (feet): This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstrear RIPARIAN WIDTH	e · Crop
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	ittent)
U.5 1.5 2.5 3.5 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe X Severe (1	O ft/100 ft)

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
	Distance from Evaluated Stream 0.26 miles
	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: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipit	ation: 9/29/23 Quantity: 0.32
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	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{Y}	es_ If not, explain:
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS
· ·	l observations below)
Fish Observed? (Y/N) NO Species observed (if known	n):
Frogs or Tadpoles Observed? (Y/N) No Species observed	ved (if known):
Salamanders Observed? (Y/N) No Species observed (ii	f known):
Aquatic Macroinvertebrates Observed? (Y/N) $\underline{\ \ No\ \ \ }$ Specific	es observed (if known):
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



Intermittent iron-rich hillside seep flowing through transmission line ROW





Upstream



Substrate



Downstream

Protection Agency

	33
SITE NAME/LOCATION Stream BN-12 Buckeye Power-Nottingham	
SITE NUMBER S-JFW-100423-05 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 184 LAT 40.26895 LONG -81.07002 RIVER MILE _	
DATE 10/04/2023 SCORER JFW COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Ir	structions
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED X RECOVERING RECENT OF	NO DECOVEDY
NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OF	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] BOULDER (>256 mm) [16 pts] BEDROCK [16 pts]	HHEI Metric Points Substrate Max = 40 5
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] ⇒ 22.5 - 30 cm [30 pts] ⇒ 5 cm - 10 cm [15 pts] ⇒ 5 cm [5pts]	
	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
	Dankian
> 4.0 meters (> 13') [30 pts]	Width
> 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] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	Width Max=30
X ≤ 1.0 m (> 9' 7"- 13') [25 pts] X ≤ 1.0 m (≤ 3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
Solution	Width Max=30
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30 5
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30 5
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30 5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30 5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30 5
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30 5
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☑ WWH Name: Lees Run	Distance from Evaluated Stream 1.15 miles
	Distance from Evaluated Stream
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipita	tion: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg/	I) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{No}	D If not, explain:
Reach is in maintained t-line ROW	
Additional comments/description of pollution impacts:	
	L OBSERVATIONS observations below)
Fish Observed? (Y/N) No Species observed (if known)	:
Frogs or Tadpoles Observed? (Y/N) No Species observ	ed (if known):
Salamanders Observed? (Y/N) No Species observed (if	known):
Aquatic Macroinvertebrates Observed? (Y/N) \underline{Yes} Specie	s observed (if known): Crayfish
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



Ephemeral stream on slope with portions of PEM wetland on banks





Upstream



Substrate



Downstream

hio Ohio Environmental Protection Agency

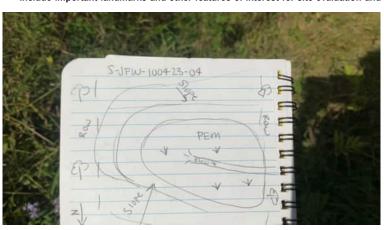
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Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	13
SITE NAME/LOCATION Stream BN-13 Buckeye Power-N SITE NUMBER S-JFW-100423-04 RIVER BASIN 05040001 LENGTH OF STREAM REACH (ft) 55 LAT 40.26798 DATE 10/04/2023 SCORER JFW COMMENT NOTE: Complete All Items On This Form - Refer to "Head	RIVER CODE DRAINAGE AREA (mi²) 0.0 LONG -81.06991 RIVER MILE S Iwater Habitat Evaluation Index Field Manual" for Inst	tructions
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL O	CHANNEL RECOVERED X RECOVERING RECENT OR N	IO RECOVERY
TYPE PERCENT 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]	s found (Max of 8). Final metric score is sum of boxes A & B	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	3 TOTAL NUMBER OF SUBSTRATE TYPES: 2	A + B
time of evaluation. Avoid plunge pools from road culverts of > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	Pool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (inches):	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 miles and selection of the selection o	measurements) (Check ONL Y one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] X ≤ 1.0 m (≤ 3' 3")[5 pts]	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 meters (> 13') [30 pts] > 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	measurements) (Check <i>ONL</i> Y one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 ii > 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 This informate RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R Wide >10m Moderate 5-10m Moderate 5-10m Reside	measurements) (Check ONL Y one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] X ≤ 1.0 m (≤ 3' 3")[5 pts]	Width Max=30 5
3. BANK FULL WIDTH (Measured as the average of 3 - 4 ii > 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 This informate RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R Wide >10m Wide >10m Moderate 5-10m Moderate 5-10m None COMMENTS COMMENTS	measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 1.0 tion must also be completed ★ NOTE: River Left (L) and Right (R) as looking downstream ★ PLAIN QUALITY (Most Predominant per Bank) L R Forest, Wetland	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 ii > 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	measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] AVERAGE BANKFULL WIDTH (feet): 1.0 tion must also be completed ★ NOTE: River Left (L) and Right (R) as looking downstream ★ PLAIN QUALITY (Most Predominant per Bank) L R Forest, Wetland	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 1.13 miles	
☐ CWH Name:	Distance from Evaluated Stream	
☐ EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Cadiz	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	tion: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0	
Were samples collected for water chemistry? (Y/N): No Lab Sample # or ID (attach results):		
Field Measures:Temp (°C) Dissolved Oxygen (mg/	I) pH (S.U.) Conductivity (umhos/cm)	
Is the sampling reach representative of the stream (Y/N) $\underline{N_0}$	O If not, explain:	
Reach is in maintained t-line ROW		
Additional comments/description of pollution impacts:		
	L OBSERVATIONS	
· ·	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) \underline{No} Specie	s observed (if known):	
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



Ephemeral stream in valley bottom that gains definition in PEM wetland and flows out of the t-line ROW





Upstream



Substrate



Downstream

Thio

Headwater Habitat Evaluation Index Field Form

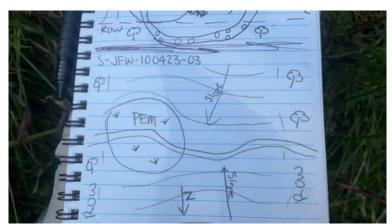
27

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)
SITE NAME/LOCATION Stream BN-14 Buckeye	ve Power-Nottingham
SITE NUMBER S-JFW-100423-03 RIVER BASIN 05040001	RIVER CODE DRAINAGE AREA (mi²) 0.09
LENGTH OF STREAM REACH (ft) 114 LAT 40.	.26255 LONG -81.07005 RIVER MILE
, ,	COMMENTS
	to "Headwater Habitat Evaluation Index Field Manual" for Instructions
	NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
(Max of 32). Add total number of significant substance 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]	present). Check ONLY two predominant substrate TYPE boxes. Strate types found (Max of 8). Final metric score is sum of boxes A & B TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts] ARTIFICIAL [3 pts] THEI Metric Points Substrate Max = 40 7
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10 SCORE OF TWO MOST PREDOMINATE SUBSTRATE 1	(A) TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4 A + B
time of evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	X
COMMENTS	MAXIMON FOOL BEFTH (Inches).
> 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]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):
COMMENTS	AVERAGE BANKFULL WIDTH (feet): 3.0
	s information must also be completed RUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R Mature Forest, Wetland
FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (inters	Moist Channel, isolated pools, no flow (intermittent)
STREAM GRADIENT ESTIMATE	_
	oderate (2 ft/100 ft) X Moderate to Severe Severe (10 ft/100 ft)

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
	Distance from Evaluated Stream 0.92 miles
	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: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipite	ation: 9/29/23 Quantity: 0.32
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	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{Y}	If not, explain:
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS
· ·	l observations below)
	n):
Frogs or Tadpoles Observed? (Y/N) NO Species observed	ved (if known):
Salamanders Observed? (Y/N) No Species observed (ii	f known):
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	es observed (if known):
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



Ephemeral stream in valley bottom flowing through transmission line ROW with PEM wetland on portion of banks





Upstream



Substrate



Downstream

Protection Agency

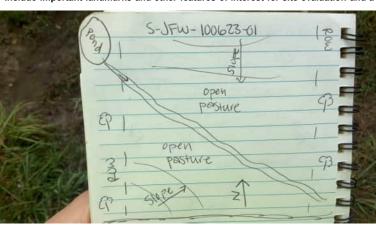
26

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	
SITE NAME/LOCATION Stream BN-15 Buckeye Pov	wer-Nottingham	
	RIVER CODE DRAINAGE AREA (mi²) 0.2	
LENGTH OF STREAM REACH (ft) 200 LAT 40.2502	11 LONG -81.07051 RIVER MILE	
DATE 10/06/2023 SCORER JFW COMM	IENTS	
NOTE: Complete All Items On This Form - Refer to "H	Headwater Habitat Evaluation Index Field Manual" for Instru	ctions
STREAM CHANNEL MODIFICATIONS: NONE / NATU	JRAL CHANNEL ☐ RECOVERED X RECOVERING ☐ RECENT OR NO	RECOVERY
(Max of 32). Add total number of significant substrate 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] Total of Percentages of	TYPE PERCENT □ □ LEAF PACK/WOODY DEBRIS [3 pts] □ □ □ FINE DETRITUS [3 pts] □	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPE	(A) 3 TOTAL NUMBER OF SUBSTRATE TYPES: 3	A + B
2. Maximum Pool Depth (Measure the maximum pool time of evaluation. Avoid plunge pools from road culve > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		ool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (inches): 3.0	
	MAXIMOW FOOL BEFTH (Inches).	Bankfull
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3	3 - 4 measurements) (Check <i>ONLY</i> one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max=30
COMMENTS 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]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	B - 4 measurements) (Check ONLY one box):	Width Max=30
COMMENTS	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet)	Width Max=30
COMMENTS SANK FULL WIDTH (Measured as the average of 3	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet)	Width Max=30
COMMENTS	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): 2.0	Width Max=30

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.43 miles	
☐ CWH Name:	Distance from Evaluated Stream	
☐ EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Jewett	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Cadiz	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	tion: 10/6/23 Quantity: 0.16	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0	
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) Ye	S If not, explain:	
Additional comments/description of pollution impacts:		
	L OBSERVATIONS observations below)	
Fish Observed? (Y/N) No Species observed (if known)	ī	
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 Specie	s observed (if known):	
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



Intermittent stream sourced from a pond that flows through a cattle pasture





Downstream



Substrate



Upstream Cattle crossing

Thio

Headwater Habitat Evaluation Index Field Form

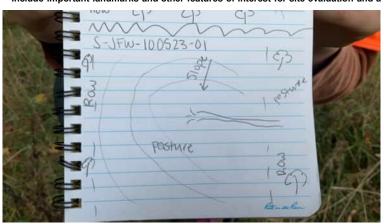
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Ohio Environmental Protection Agency HHEI Score (sum of metrics	1+2+3)
SITE NAME/LOCATION Stream BN-17 Buckeye Power-Nottingham	
SITE NUMBER S-JFW-100523-01 RIVER BASIN 05040001 RIVER CODE DRAINAGE AI	REA (mi²) 0.09
LENGTH OF STREAM REACH (ft) 44 LAT 40.24000 LONG -81.07121 RIV	
DATE 10/05/2023 SCORER JFW COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Man	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED X RECOVERING	
BLDR SLABS [16 pts]	OXES A & B HHEI RCENT Metric Points
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPE	(B) A + B
Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation read time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 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] 3.0 m - 4.0 m (> 9' 7") [20 pts]	Width Max=30
COMMENTS AVERAGE BANKFULL WIDTH (fe	eet): 1.0 5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking of	downstream ★
RIPARIAN WIDTH L R (Per Bank) L R Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Wature Forest, Wetland D Mature Forest, Shrub or Old Field D Urban or Residential, Park, New Field D Open Par	ation Tillage Industrial sture, Row Crop r Construction
COMMENTS	
COMMENTS (Check ONLY one box): Stream Flowing	,
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): X Stream Flowing	,

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
	Distance from Evaluated Stream 0.17 miles	
	Distance from Evaluated Stream Distance from Evaluated Stream	
	Distance nom Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING 1	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Cadiz	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): No Date of last precipitation	tion: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0	
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) $\underline{Y\epsilon}$	S If not, explain:	
Additional comments/description of pollution impacts:		
<u></u>	L OBSERVATIONS 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:		

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



Ephemeral stream in pasture with severe impacts from cattle, gains definition in transmission line ROW





Upstream



Substrate



Downstream

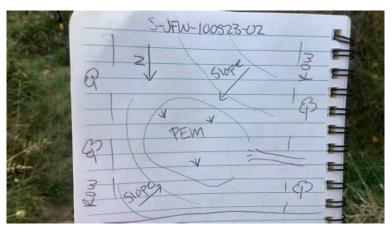
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Ohio Environmental Protection Agency	HHEI Score (sun	n of metrics 1+2+3) 11
SITE NAME/LOCATION Stream BN-18 Buckey	e Power-Nottingham	
SITE NUMBER S-JFW-100523-02 RIVER BASIN 05040001	RIVER CODE	DRAINAGE AREA (mi²) 0.01
LENGTH OF STREAM REACH (ft) 22 LAT 40.		
DATE 10/05/2023 SCORER JFW C		
NOTE: Complete All Items On This Form - Refer		
STREAM CHANNEL MODIFICATIONS: NONE /		
1. SUBSTRATE (Estimate percent of every type (Max of 32). Add total number of significant substance of the significant substance of		PERCENT BRIS[3 pts] BRIS[3 pts] MHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 20 SCORE OF TWO MOST PREDOMINATE SUBSTRATE	(A) TYPES: 3 TOTAL NUMBER OF S	(B) A + B UBSTRATE TYPES:
2. Maximum Pool Depth (<i>Measure the maximum</i> time of evaluation. Avoid plunge pools from road > 30 centimeters [20 pts]	d culverts or storm water pipes) (Check 5 cm - 10 cm [15 pts]	et) evaluation reach at the ONLY one box): Pool Depth Max = 30
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	<pre>< 5 cm [5pts] X NO WATER OR MOIST (</pre>	CHANNEL [Opts]
COMMENTS	MAXIMUM PO	OL DEPTH (inches): 0.0
3. BANK FULL WIDTH (Measured as the averag > 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]	e of 3 - 4 measurements) (Check <i>ONL</i>	4' 8")[15 pts] Width Max=30
COMMENTS	AVERAGE BANK	(FULL WIDTH (feet): 2.0
	s information <u>must</u> also be completed	of (D) as health and assess to
RIPARIAN ZONE AND FLOODPLAIN G RIPARIAN WIDTH L R (Per Bank) L R	UALITY ★ NOTE: River Left (L) and RigI FLOODPLAIN QUALITY (Most Predomin L	-
☐ Wide >10m ☐ ☐ Moderate 5-10m ☐ ☐ Narrow <5m	Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture	Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction
COMMENTS		
FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (inters	<u> </u>	plated pools, no flow (intermittent) rater (ephemeral)
X None □ 1.0 □ 0.5 □ 1.5	(200 ft) of channel) (Check ONLY one bo	x): 3.0 >3
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft)	derate (2 ft/100 ft) Moderate to Sev	/ere Severe (10 ft/100 ft)

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
☐ CWH Name:	Distance from Evaluated Stream 0.19 miles 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: Flushing	NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation	ation: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): No Canopy (% open):	60.0
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{Y}	If not, explain:
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS I observations below)
Fish Observed? (Y/N) No Species observed (if known	n):
	ved (if known):
	f known):
, , , , , , , , , , , , , , , , , , , ,	es observed (if known):
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



Ephemeral stream just downslope of PEM wetland, gains definition just inside transmission line ROW and flows out





Upstream



Substrate



Downstream

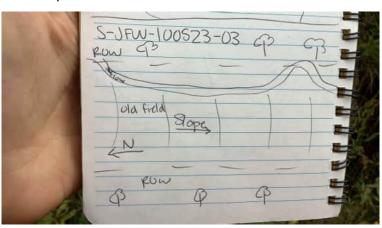
22
SZ

COBBLE (65-256 mm)[12 pts]	Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)) 32
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 B FERCENT DERCENT DERCENT	SITE NUMBER S-JFW-100523-03 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi² LENGTH OF STREAM REACH (ft) 200 LAT 40.23046 LONG -81.06735 RIVER MILE DATE 10/05/2023 SCORER JFW COMMENTS COMMENTS COMMENTS	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B YPE	STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERED RECOVERING RECENT	OR NO RECOVERY
Commens Second Form of Substract Process Substract Process Second Form of Subs	(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & ITYPE	Metric Points Substrate Max = 40
time of evaluation. Ávoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts]		A + B
> 4.0 meters (> 13') [30 pts]	time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] X 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]	15
RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH (Per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Mature Forest, Shrub or Old Field Urban or Industrial Narrow <5m X Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (intermittent) Subsurface flow with isolated pools (interstitial) Dry channel, no water (ephemeral)	> 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] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	Width Max=30
RIPARIAN WIDTH (Per Bank) L R Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (interstitial) FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction Comments Moist Channel, isolated pools, no flow (intermittent) Dry channel, no water (ephemeral)	·	1
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	RIPARIAN WIDTH (Per Bank) L R Wide >10m Moderate 5-10m Narrow <5m X None FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Conservation Tilla Urban or Industria Residential, Park, New Field Mining or Construction Fenced Pasture	ge w Crop
COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	nittent)
None	□ None □ 1.0 □ 2.0 □ 3.0 □ 0.5 □ 1.5 □ 2.5 □ >3 STREAM GRADIENT ESTIMATE	40 (4400 (1)

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
☐ CWH Name:	Distance from Evaluated Stream 0.53 miles 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: Flushing	NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Cadiz	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	ation: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open):	80.0	
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:		
·	AL OBSERVATIONS I observations below)	
Fish Observed? (Y/N) No Species observed (if known	n):	
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:		

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



Intermittent stream flowing down a slope on the edge of a transmission line ROW





Upstream



Substrate



Downstream

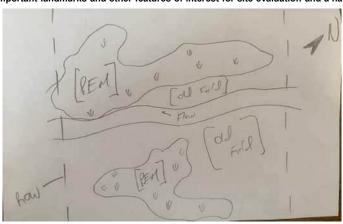
26

Protection Agency HHEI Score (sum of metrics 1+2+3)	20
SITE NAME/LOCATION Stream BN-20 Buckeye Power-Nottingham SITE NUMBER S-MJA-100523-02 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) 0.5 LENGTH OF STREAM REACH (ft) 200 LAT 40.22914 LONG -81.06708 RIVER MILE DATE 10/05/2023 SCORER MJA COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instance STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NOTE: NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NATURAL CHANNEL RECOVER DELEGATION RECOVER D	ructions
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] 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] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock BCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40 6 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]	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH	ор
Stream Flowing Subsurface flow with isolated pools (interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) 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):	nt) —

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
☐ CWH Name:	Distance from Evaluated Stream 0.39 miles 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: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Cadiz
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipit	ation: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): No Canopy (% open):	100.0
Were samples collected for water chemistry? (Y/N): $\underline{\text{No}}$	Lab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{\underline{Y}}$	<u>'es</u> If not, explain:
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS Il observations below)
Fish Observed? (Y/N) No Species observed (if known	n):
	ved (if known):
Salamanders Observed? (Y/N) No Species observed (i	f known):
Aquatic Macroinvertebrates Observed? (Y/N) No Speci	es observed (if known):
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



Intermittent stream flowing west adjacent to PEM wetland in maintained powerline easement.



Upstream



Downstream



Substrate

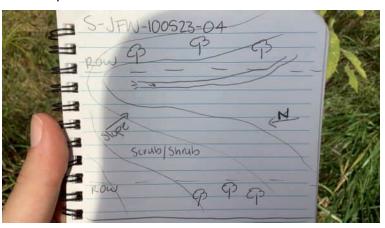
10	1	6
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	HHEI Score (sum of metrics 1+2+3)	10
SITE NUMBER 8-JFW-100523-04 RIVER BASIN 05040001 LENGTH OF STREAM REACH (ft) 200 LAT 40.223 DATE 10/05/2023 SCORER JFW COM		
·	"Headwater Habitat Evaluation Index Field Manual" for Inst	
STREAM CHANNEL MODIFICATIONS: NONE / NA	TURAL CHANNEL RECOVERED X RECOVERING RECENT OR N	O RECOVERY
	esent). Check ONLY two predominant substrate TYPE boxes. te types found (Max of 8). Final metric score is sum of boxes A & B TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] SILT [4 pt] ARTIFICIAL [5 pts] ARTIFICIAL [5 pts]	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPE	(A) (B) (B) (C) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	A + B
2. Maximum Pool Depth (<i>Measure the <u>maximum</u> potime</i> of evaluation. Avoid plunge pools from road cursive section of evaluation of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Section of evaluation of evaluation of evaluation of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation. Avoid plunge pools from road cursive section of evaluation of evaluation. Avoid plunge pools from road cursive section of evaluation of evaluation. Avoid plunge pools from road cursive section of evaluation	5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	Pool Depth Max = 30
	MAXIMUM POOL DEPTH (inches):	
3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	f 3 - 4 measurements) (Check ONLY one box):	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of > 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	f 3 - 4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	##AXIMOM FOCE BEFTH (Inclies): 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	### Aximom Fool Ber in (inches):	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.46 miles	
	Distance from Evaluated Stream	
☐ EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING 1	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	tion: <u>9/29/23</u> Quantity: <u>0.32</u>	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open):	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) Ye	S If not, explain:	
Additional comments/description of pollution impacts:		
	L OBSERVATIONS observations below)	
Fish Observed? (Y/N) No Species observed (if known)	i	
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	s observed (if known):	
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



Ephemeral stream flowing down a slope within a transmission line ROW





Upstream



Substrate



Downstream

10	1	6
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SITE NAME/LOCATION Stream BN-22 Buckeye Power-Nottingham SITE NUMBER S-MJA-100523-03 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) 0.45 LENGTH OF STREAM REACH (ft) 148 LAT 40.22102 LONG -81.06333 RIVER MILE DATE 10/05/2023 SCORER MJA COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instruction STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER.	= - -
	- -
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL X RECOVERED RECOVERING RECENT OR NO RECOVER	s
	VERY
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] 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] Total of Percentages of	ric ts rate : 40
Bidr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 3	<u>}</u>
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]	•
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): Bankt 3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): Bankt Vidt	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] X ≤ 1.0 m (≤ 3' 3") [5 pts] Max=	
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS AVERAGE BANKFULL WIDTH (feet): 1.5	
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream★	
RIPARIAN WIDTH L R (Per Bank) L R Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None Residential, Park, New Field Comments Stream also flows through palustrine emergent wetland.	
RIPARIAN WIDTH L R (Per Bank) L R Mature Forest, Wetland Moderate 5-10m Narrow <5m None FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
RIPARIAN WIDTH (Per Bank) L R Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Wide >5-10m Narrow <5m None COMMENTS Stream also flows through palustrine emergent wetland. FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Conservation Tillage Urban or Industrial Open Pasture, Row Crop Fenced Pasture Mining or Construction COMMENTS Stream also flows through palustrine emergent wetland. FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (intermittent) Dry channel, no water (ephemeral) COMMENTS Stream estimated ephemeral based on size of channel and watershed.	

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.23 miles	
CWH Name:		
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: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 9/29/23 Quantity: 0.32		
Photo-documentation Notes:		
ElevatedTurbidity?(Y/N): No Canopy (% open): _		
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) $\underline{\underline{Y}}$	es_ If not, explain:	
Additional comments/description of pollution impacts:		
	AL OBSERVATIONS I 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 Special	es observed (if known):	
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



Ephemeral stream flowing from hillside seep in maintained powerline easement. Flows through PEM wetland and south into intermittent stream.



Downstream



Substrate



Upstream

Protection Agency

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	
SITE NAME/LOCATION Stream BN-23 Buckeye Po	wer-Nottingham	
SITE NUMBER S-JFW-100523-05 RIVER BASIN 05040001	RIVER CODE DRAINAGE AREA (mi²) 0.45	
LENGTH OF STREAM REACH (ft) 200 LAT 40.2210	02 LONG <u>-81.06332</u> RIVER MILE	
DATE 10/05/2023 SCORER JFW COMM	MENTS	
NOTE: Complete All Items On This Form - Refer to "	Headwater Habitat Evaluation Index Field Manual" for Instruct	tions
STREAM CHANNEL MODIFICATIONS: NONE / NATO	JRAL CHANNEL RECOVERED RECOVERING RECENT OR NO RE	ECOVERY
	TYPE PERCENT 50 30	HHEI letric oints ubstrate lax = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPE		A + B
2. Maximum Pool Depth (Measure the maximum pool time of evaluation. Avoid plunge pools from road cult > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	/erts or storm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts]	ol Depth lax = 30
COMMENTS	MAXIMUM POOL DEPTH (inches): 5.0	
	MAXIMONI FOOL BEFTH (INChes).	Sankfull
COMMENTS 3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width
COMMENTS 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] □ × 1.0 m (≤ 3' 3")[5 pts]	Width lax=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	3 - 4 measurements) (Check ONLY one box): □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] □ × 1.0 m (≤ 3' 3")[5 pts]	Width
COMMENTS 3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width lax=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check ONLY one box):	Width lax=30
COMMENTS	3 - 4 measurements) (Check <i>ONLY</i> one box):	Width lax=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check ONLY one box):	Width lax=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	3 - 4 measurements) (Check ONLY one box):	Width lax=30
COMMENTS SANK FULL WIDTH (Measured as the average of > 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 This inference RIPARIAN ZONE AND FLOODPLAIN QUAL RIPARIAN WIDTH FL (Per Bank) L R Wide > 10m Moderate 5-10m Moderate 5-10m Moderate 5-10m Moderate 5-10m RIPARIAN WIDTH RIPARIAN WIDTH FL Wide > 10m Moderate 5-10m Moderate 5-10m Moderate 5-10m RIPARIAN WIDTH RIPARIAN	3 - 4 measurements) (Check ONLY one box):	Width lax=30

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
☐ CWH Name:	Distance from Evaluated Stream 0.21 miles 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: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 9/29/23 Quantity: 0.32		
Photo-documentation Notes:		
ElevatedTurbidity?(Y/N): No Canopy (% open): 80.0		
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:		
, , ,		
·	AL OBSERVATIONS I 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 Specie	es observed (if known):	
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



Intermittent stream flowing through PEM wetland and transmission line ROW, with an ephemeral stream tributary within sampled reach





Upstream



Substrate



Downstream

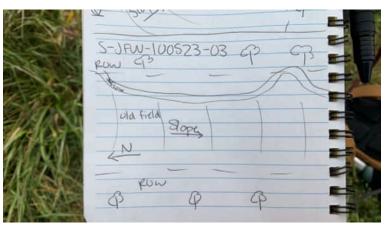
15	
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Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)	5
SITE NAME/LOCATION Stream BN-24 Buckeye Power-Nottingham SITE NUMBER S-JFW-100523-06 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) 0.05 LENGTH OF STREAM REACH (ft) 114 LAT 40.21742 LONG -81.06115 RIVER MILE DATE 10/05/2023 SCORER JFW COMMENTS	5
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instru	uctions
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO	RECOVERY
□ □ BLDR SLABS [16 pts] □ □ X SILT [3 pt] 30 □ □ BOULDER (>256 mm)[16 pts] □ □ LEAF PACK/WOODY DEBRIS [3 pts] □ □ SILT [3 pt] □ □ LEAF PACK/WOODY DEBRIS [3 pts] □ □ SILT [3 pt] □ □ SILT [3 pt]	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 2	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]	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull
 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] 	Width Max=30
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	5
COMMENTS AVERAGE BANKFULL WIDTH (feet):	
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH (Per Bank) L R Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m None Residential, Park, New Field None COMMENTS	p
COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (interstitial) COMMENTS Moist Channel, isolated pools, no flow (intermittent Dry channel, no water (ephemeral)	t)
	-
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 STREAM GRADIENT ESTIMATE	-

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.20 miles	
	Distance from Evaluated Stream	
☐ EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	tion: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open): 1	00.0	
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) Ye	S If not, explain:	
	·	
Additional comments/description of pollution impacts:		
	L OBSERVATIONS 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	s observed (if known):	
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



Ephemeral stream that begins on a slope in a transmission line ROW and flows through a culvert into a PEM wetland

FLOW



Upstream



Substrate



Downstream

Ohio Environmental Protection Agency HHEI Score (sum of metrics	s 1+2+3) 24
SITE NAME/LOCATION Stream BN-27 Buckeye Power-Nottingham SITE NUMBER S-MJA-100323-02 RIVER BASIN 05040001 RIVER CODE DRAINAGE ALL LAT 40.20517 LONG -81.04935 RIVER DATE 10/03/2023 SCORER MJA COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Mar	VER MILE
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL X RECOVERED RECOVERING	
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pts] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	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:	(B) 4 A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation real 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] X NO WATER OR MOIST CHANNEL [0pts] COMMENTS MAXIMUM POOL DEPTH (incl	Max = 30
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] X ≤ 1.0 m (≤ 3' 3") [5 pts] COMMENTS AVERAGE BANKFULL WIDTH (f	Bankfull Width Max=30
This information must also be completed	
Moderate 5-10m X Immature Forest, Shrub or Old Field Urban on Residential, Park, New Field None Fenced Pasture Mining of	vation Tillage or Industrial asture, Row Crop or Construction
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	
None X 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) Moderate to Severe X	_

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)	0.21 miles	
	Distance from Evaluated Stream 0.21 miles Distance from Evaluated Stream	
	Distance from Evaluated Stream	
	THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.	
USGS Quadrangle Name: Flushing	NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	tion: <u>9/29/23</u> Quantity: <u>0.32</u>	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open): 2	20.0	
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) Ye	S If not, explain:	
	·	
Additional comments/description of pollution impacts:		
	L OBSERVATIONS 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	s observed (if known):	
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



Ephemeral stream flowing north along east boundary of powerline easement.



Upstream



Substrate



Downstream

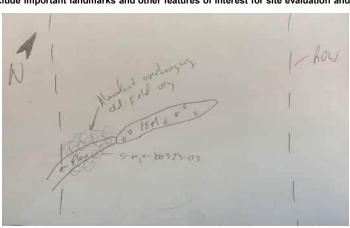
6

Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)	0
SITE NAME/LOCATION Stream BN-28 Buckeye Power-Nottingham SITE NUMBER S-MJA-100323-03 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) CLENGTH OF STREAM REACH (ft) LAT 40.20028 LONG -81.04577 RIVER MILE DATE 10/03/2023 SCORER MJA COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Institute Complete Complete Complete Complete Complete Complete Complete Complete Complete Comp	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT 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 & B 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] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 0 TOTAL NUMBER OF SUBSTRATE TYPES: 1	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]	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check <i>ONLY</i> 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] COMMENTS AVERAGE BANKFULL WIDTH (feet): 1.0 1.0 1.0 1.0	Bankfull Width Max=30
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH (Per Bank) L R Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None Residential, Park, New Field Narrow COMMENTS	rop
COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	ent)
None 1.0 2.0 3.0 3.0 3.0 3.5 2.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) X Moderate to Severe Severe (10 ft) Severe (10 f	(400 ft)

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)	
	Distance from Evaluated Stream 0.21 miles	
	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: Flushing	NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipit	tation: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
ElevatedTurbidity?(Y/N): No Canopy (% open):	100.0	
Were samples collected for water chemistry? (Y/N): $\underline{\text{No}}$	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) $\underline{\underline{Y}}$	<u>'es</u> If not, explain:	
Additional comments/description of pollution impacts:		
	AL OBSERVATIONS Il 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 Speci	ies observed (if known):	
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



Ephermal stream flowing west from PEM wetland in maintained powerline easement.



Downstream



Substrate



Upstream

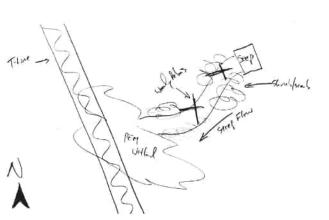
22

Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)	22		
SITE NAME/LOCATION Stream BN-29 Buckeye Power-Nottingham SITE NUMBER S-MJA-100423-01 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) LENGTH OF STREAM REACH (ft) LAT 40.19877 LONG -81.04313 RIVER MILE			
DATE 10/04/2023 SCORER MJA COMMENTS NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items On This Field Manual (Index Field Manual (Ind	netructions		
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL X RECOVERED RECOVERING RECENT OF	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 & E TYPE PERCENT SILT [3 pt] 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] Total of Percentages of BYPE PERCENT TYPE PERCENT TYPE PERCENT TYPE CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	Metric Points Substrate Max = 40		
Bldr 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 (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]	Pool Depth Max = 30		
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Bankfull		
> 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] 3.5 m - 4.0 m (> 6 3' 3") [5 pts] 3.6 m - 4.0 m (> 6 3' 3") [5 pts] 3.7 m - 4.0 m (> 6 3' 3") [5 pts]	Width Max=30		
COMMENTS AVERAGE BANKFULL WIDTH (feet): 2.0	5		
This information must also be completed	1		
RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH (Per Bank) L R (Per Bank) L R L R Wide >10m Mature Forest, Wetland Conservation Tillage X Moderate 5-10m X X Immature Forest, Shrub or Old Field Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS			
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing X Moist Channel, isolated pools, no flow (intermittent) Subsurface flow with isolated pools (interstitial) Dry channel, no water (ephemeral) COMMENTS Small puddles observed. Estimated ephemeral due to channel size.			
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			
STREAM GRADIENT ESTIMATE			

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.46 miles	
	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: Flushing	NRCS Soil Map Page: NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipitation	ation: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open):	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:		
Additional comments/description of pollution impacts:		
	AL OBSERVATIONS 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:		

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



Small ephemeral stream flowing into PEM wetland in maintained powerline easement.



Upstream



Substrate



Downstream

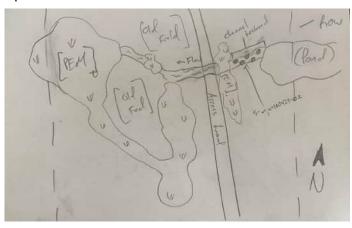
33
SS

	trics 1+2+3)	
SITE NAME/LOCATION Stream BN-30 Buckeye Power-Nottingham SITE NUMBER S-MJA-100423-02 RIVER BASIN 05040001 RIVER CODE DRAIN/ LENGTH OF STREAM REACH (ft) LAT 40.19775 LONG -81.04155		
DATE 10/04/2023 SCORER MJA COMMENTS		
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field	d Manual" for Instr	ructions
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERED	NG RECENT OR NO	O RECOVERY
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate 7 (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sur TYPE	m of boxes A & B PERCENT 20	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE	(B) E TYPES: 4	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one > 30 centimeters [20 pts]	[0pts]	Pool Depth Max = 30
COMMENTS MAXIMUM POOL DEPTH	1 (Iliches).	
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check <i>ONLY</i> one box > 4.0 meters (> 13') [30 pts]	,	Bankfull Width Max=30
7 1.5 m 3.5 m (* 4 5 * 5 *)[25 pt3]		
COMMENTS AVERAGE BANKFULL WILL	OTH (feet): 2.5	5
COMMENTS AVERAGE BANKFULL WID	orn (leet).	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as lo RIPARIAN WIDTH L R (Per Bank) L R Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field	ooking downstream★	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as lo RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Ball L R (Per Bank) L R Wide >10m Mature Forest, Wetland Completed L R (Moderate 5-10m X X Immature Forest, Shrub or Old Field L Under Size None Residential, Park, New Field L Open Stream also flows through palustrine emergent wetland. FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pool Subsurface flow with isolated pools (interstitial) Dry channel, no water (ephen COMMENTS Stream estimated intermittent due to size of channel and watershed.	poking downstream * ank) conservation Tillage rban or Industrial open Pasture, Row Cro ining or Construction	pp
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as lo RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bath L R (Per Bank) L R L R Wide >10m Mature Forest, Wetland Completed Moderate 5-10m Moderate 5-10m Residential, Park, New Field Completed Mineral Mathematical Moderate Stream also flows through palustrine emergent wetland. FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pool Subsurface flow with isolated pools (interstitial) Dry channel, no water (epherometric parts)	poking downstream * ank) conservation Tillage rban or Industrial open Pasture, Row Cro ining or Construction	pp

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
	Distance from Evaluated Stream 0.06 miles	
CWH Name:		
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: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:	
County: Harrison	Township/City: Athens	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Yes Date of last precipit	ation: 9/29/23 Quantity: 0.32	
Photo-documentation Notes:		
ElevatedTurbidity?(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) $\underline{\underline{Y}}$	es_ If not, explain:	
Additional comments/description of pollution impacts:		
Sulfur odor		
	AL OBSERVATIONS I 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) $\underline{\text{No}}$ Species observed (i	f known):	
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	es observed (if known):	
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



Intermittent stream flowing from reclaimed coal mine pond, over access road, & through wetland. Channel restored between pond & access road.





Upstream

Channel very disturbed from through traffic at access crossing.



Downstream



Substrate

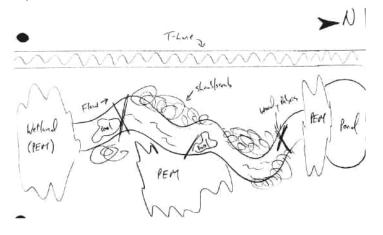
50	

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3) 50		
SITE NAME/LOCATION Stream BN-31 Buckeye Pow	ver-Nottingham		
	RIVER CODE DRAINAGE AREA (mi²) 0.18		
LENGTH OF STREAM REACH (ft) LAT 40.19645	5 LONG -81.04038 RIVER MILE		
DATE 10/04/2023 SCORER MJA COMME			
	eadwater Habitat Evaluation Index Field Manual" for Instructions		
	RAL CHANNEL X RECOVERED RECOVERING RECENT OR NO RECOVER		
(Max of 32). Add total number of significant substrate temperature (Max of 32). Add total number of significant substrate temperature (Max of 32). Add total number of significant substrate temperature (Max of 32).	HHEI TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]		
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 2 (A SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES	A) 6 TOTAL NUMBER OF SUBSTRATE TYPES: 4 A + B		
2. Maximum Pool Depth (<i>Measure the maximum pool</i> time of evaluation. Avoid plunge pools from road culve > 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 ents or storm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts] Pool Depth Max = 30		
COMMENTS	MAXIMUM POOL DEPTH (inches): 6.0		
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]	X > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] Width Max=30 15		
COMMENTS	AVERAGE BANKFULL WIDTH (feet): 3.3		
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH			
<u> </u>	Moist Channel, isolated pools, no flow (intermittent) Dry channel, no water (ephemeral) (t) of channel) (Check ONLY one box): 2.0 3.0 2.5 X > 3		
STREAM GRADIENT ESTIMATE			
Flat (0.5 ft/100 ft) Flat to Moderate X Moderate	e (2 ft/100 ft)		

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
	Distance from Evaluated Stream 0.00 miles
	Distance from Evaluated Stream
LI 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: Flushing	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Harrison	Township/City: Athens
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipit	ation: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open):	40.0
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{\underline{Y}}$	<u>'es</u> If not, explain:
Additional comments/description of pollution impacts:	
BIOLOGICA	AL OBSERVATIONS
,	Il observations below)
Fish Observed? (Y/N) No Species observed (if known	n):
Frogs or Tadpoles Observed? (Y/N) No Species obser	ved (if known):
Salamanders Observed? (Y/N) No Species observed (i	if known):
Aquatic Macroinvertebrates Observed? (Y/N) $\underline{\text{No}}$ Speci	es observed (if known):
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



Perennial stream flowing along east edge of maintained powerline easement. Flows through patches of emergent wetland before emptying into pond.



Upstream



Substrate



Downstream

Protection Agency

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

22

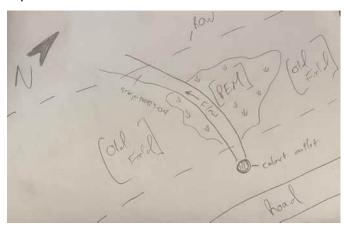
# Ohio Environmental Protection Agency HHEI Score (sum of metr	rics 1+2+3)
SITE NAME/LOCATION Stream BN-32 Buckeye Power-Nottingham SITE NUMBER S-MJA-100423-04 RIVER BASIN 05040001 RIVER CODE DRAINAGE LENGTH OF STREAM REACH (ft) LAT 40.19375 LONG -81.03622 DATE 10/04/2023 SCORER MJA COMMENTS	RIVER MILE
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field IN STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERED	
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYN (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate types found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found (Max of 8). Final metric score is sum of the substrate type found in the substrate type found (Max of 8). Final metric score is sum of the substrate type found in the substrate type foun	Metric Points 50 10 (B) 3 HHEI Metric Points Substrate Max = 40 12
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one by 30 centimeters [20 pts] 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] X < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0 COMMENTS]	n reach at the box): Opts] Pool Depth Max = 30
	(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] > 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]	: Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] X ≤ 1.0 m (≤ 3' 3") [5 pts]	Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30 5 TH (feet): 3.0 Servation Tillage an or Industrial en Pasture, Row Crop ing or Construction The construction The construction of the const

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
☐ CWH Name:	Distance from Evaluated Stream 1.2 miles 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: Flushing	NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Harrison	Township/City: Athens
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipit	ation: 9/29/23 Quantity: 0.32
Photo-documentation Notes:	
ElevatedTurbidity?(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	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{\underline{Y}}$	<u>es</u> If not, explain:
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS I observations below)
Fish Observed? (Y/N) $\underline{\text{No}}$ Species observed (if known	n):
	ved (if known):
Salamanders Observed? (Y/N) $\underline{\text{No}}$ Species observed (i	f known):
Aquatic Macroinvertebrates Observed? (Y/N) $\underline{\text{No}}$ Specification	es observed (if known):
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



Constructed intermittent stream channel flowing from roadside culvert and through PEM wetland.

May 2020 Revision Page 2



Upstream



Substrate



Downstream

hio Ohio Environmental Protection Agency

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

46

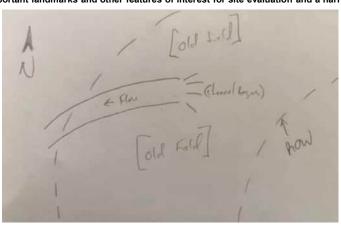
Ohio Environmental Protection Agency HHEI Score (sum of metrics 1+2+3)	46
SITE NAME/LOCATION Stream BN-33 Buckeye Power-Nottingham SITE NUMBER S-MJA-100423-05 RIVER BASIN 05040001 RIVER CODE DRAINAGE AREA (mi²) CLAT 40.19605 LONG -81.03596 RIVER MILE DATE 10/04/2023 SCORER MJA COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for In	
STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT 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 & B TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pts] BEDROCK [16 pts] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 80 (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 28 TOTAL NUMBER OF SUBSTRATE TYPES: 3	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] X NO WATER OR MOIST CHANNEL [0pts] COMMENTS MAXIMUM POOL DEPTH (inches):	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check <i>ONLY</i> one box): > 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30
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	Сгор
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	ent)
None	t/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

DOWNSTREAM DESIGNATED USE(S) WWH Name: South Fork Brushy Fork	
CWH Name:	
EWH Name:	Distance nom Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED	AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Flushing NRCS Soil Map Page	:NRCS Soil Map Stream Order:
County: Harrison Township/City: Athen	s
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation: 9/29/23	Quantity: 0.32
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): No Canopy (% open): 100.0	
Were samples collected for water chemistry? (Y/N): No Lab Sample # or II	D (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) \underline{No} Species observed (if known):_	
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



Ephemeral stream beginning in maintained powerline easement and flowing west.

May 2020 Revision Page 2



Upstream



Substrate



Downstream

	Appendix G
Jacobs Open Water/Pond	Data Forms



			III OIIEEI	
FEATURE ID Pond BN-01	ASSOCIATED FEATURES:			
Survey Type: Wetland and waterbodies delineation				
DATE: 10/02/2023	CLIENT/PROJECT NAME:	FirstEnergy	Buckeye Power-Nottingha	am
INVESTIGATORS: JFW		ROUTE:		
STATE/COUNTY: OH Harris	son		IS THIS A MAPPED NWI FEATURE?: YES	PUBG
	١	WATERBODY CH	HARACTERISTICS	
WATERBODY TYPE:	Pond			
AVG. DEPTH:	3'			
AVG. WIDTH (WATER SURFACE):	50'			
APPROXIMATE SIZE:	0.5 acre			
Qualitative Attributes				
AVERAGE WATER APPEARANCE:	Turbid green			
PRIMARY SUBSTRATE (IF OBSERVED):	Not observed			
POTENTIAL HABITAT FOR:	Fish, frogs, insects			
SURROUNDING LAND USE:	Mowed			
WETLAND FRINGE (IF PRESENT):	PEM			
		Соми	MENTS	

Site Photos Pond BN-01 P-JFW-100223-01









Substrate



TONE ENTITIONEET			
FEATURE ID Pond BN-02		ASSOCIATED	FEATURES:
Survey Type: Wetland and waterbodies delineation			
DATE: 10/03/2023	CLIENT/PROJECT NAME: F	FirstEnergy	Buckeye Power-Nottingham
INVESTIGATORS: JFW		ROUTE:	
			DUDO
STATE/COUNTY: OH Harris	son		Is this a Mapped NWI Feature?: yes PUBGx
	١	NATERBODY C	IARACTERISTICS
WATERBODY TYPE:	Old quarry or mine	pond	
AVG. DEPTH:	6'		
AVG. WIDTH (WATER SURFACE):	120'		
APPROXIMATE SIZE:	2 acres		
QUALITATIVE ATTRIBUTES			
AVERAGE WATER APPEARANCE:	Murky green		
PRIMARY SUBSTRATE (IF OBSERVED):	Not observed		
POTENTIAL HABITAT FOR:	Fish, insects, turtles, frogs		
SURROUNDING LAND USE:	Forested, scrub shrub, old field		
WETLAND FRINGE (IF PRESENT):	PEM outside survey	area	
		Соми	MENTS

 Site Photos
 Pond BN-02
 P-JFW-100323-01







Substrate



NE



TOND DITTIONEET				
FEATURE ID Pond BN-03		ASSOCIATED	FEATURES:	
Survey Type: Wetland and waterbodies delineation				
DATE: 10/04/2023	CLIENT/PROJECT NAME: [FirstEnergy	Buckeye Power-Nottingham	
INVESTIGATORS: JFW		ROUTE:		
STATE/COUNTY: OH Harris	son		Is this a Mapped NWI Feature?: yes PUBG	
	١	WATERBODY CH	HARACTERISTICS	
WATERBODY TYPE:	Pond			
AVG. DEPTH:	4'			
AVG. WIDTH (WATER SURFACE):	200'			
APPROXIMATE SIZE:	0.74 ac			
		QUALITATIVE	ATTRIBUTES	
AVERAGE WATER APPEARANCE:	Murky slightly turbi	d		
PRIMARY SUBSTRATE (IF OBSERVED):	Clay/Silt			
POTENTIAL HABITAT FOR:	Amphibians			
SURROUNDING LAND USE:	Open pasture			
WETLAND FRINGE (IF PRESENT):	PEM			
		Соми	MENTS	

Site Photos Pond BN-03 P-JFW-100423-01



S



Catch Basin/Outlet







S



TOND DITTIONEET				
FEATURE ID Pond BN-04		ASSOCIATED	FEATURES:	
Survey Type: Wetland and waterbodies delineation				
DATE: 10/04/2023	CLIENT/PROJECT NAME: F	FirstEnergy	Buckeye Power-Nottingham	
INVESTIGATORS: JFW		ROUTE:		
			21122	
STATE/COUNTY: OH Harris	son		IS THIS A MAPPED NWI FEATURE?: YES PUBGX	
	V	NATERBODY C	HARACTERISTICS	
WATERBODY TYPE:	Mine/quarry pond			
AVG. DEPTH:	4′			
AVG. WIDTH (WATER SURFACE):	40'			
APPROXIMATE SIZE:	0.2 acre			
QUALITATIVE ATTRIBUTES				
AVERAGE WATER APPEARANCE:	Murky, filmy			
PRIMARY SUBSTRATE (IF OBSERVED):	Not observed			
POTENTIAL HABITAT FOR:	Insects			
SURROUNDING LAND USE:	Mowed			
WETLAND FRINGE (IF PRESENT):	Cattails within OHW	M		
		Соми	MENTS	

Site Photos Pond BN-04 P-JFW-100423-02







TONE ENTINONEEL				
FEATURE ID Pond BN-05		ASSOCIATED	FEATURES:	
Survey Type: Wetland and waterbodies delineation				
DATE: 10/06/2023	CLIENT/PROJECT NAME: F	FirstEnergy	Buckeye Power-Nottingham	
INVESTIGATORS: JFW		R оите:		
STATE/COUNTY: OH Harrison Is this a Mapped NWI Feature?: yes PUBGx			IS THIS A MAPPED NWI FEATURE?: YES PUBGX	
	١	WATERBODY CH	HARACTERISTICS	
WATERBODY TYPE:	Pond/Man Made			
AVG. DEPTH:	6'			
AVG. WIDTH (WATER SURFACE):	240'			
APPROXIMATE SIZE:	ROXIMATE SIZE: 0.14 ac			
QUALITATIVE ATTRIBUTES				
AVERAGE WATER APPEARANCE:	Murkish and turbid.	Post rain even	t.	
PRIMARY SUBSTRATE (IF OBSERVED):	Silty Clay			
POTENTIAL HABITAT FOR:	Amphibians and avian species and fish			
SURROUNDING LAND USE:	Pasture			
WETLAND FRINGE (IF PRESENT):	None			
COMMENTS				
Outlet structure located in v	vestern portion of the	e pond; adjacei	nt to an access road	

 Site Photos
 Pond BN-05
 P-JFW-100623-01





W





S E



		0110 211	111 011221				
FEATURE ID Pond BN-06	FEATURE ID Pond BN-06 ASSOCIATED FEATURES:						
Survey Type: Wetland and waterbodies delineation							
DATE: 10/05/2023	CLIENT/PROJECT NAME: FirstEnergy Buckeye Power-Nottingham						
INVESTIGATORS: MJA		R оите:					
STATE/COUNTY: OH Harrison			IS THIS A MAPPED NWI FEATURE?: YES PUBG				
WATERBODY CHARACTERISTICS							
WATERBODY TYPE:	Pond						
AVG. DEPTH:	>3 ft						
AVG. WIDTH (WATER SURFACE):	160'						
APPROXIMATE SIZE:	2.5 acres						
		QUALITATIVE	ATTRIBUTES				
AVERAGE WATER APPEARANCE:	Murky, high algae						
PRIMARY SUBSTRATE (IF OBSERVED):	Silt with some boulders						
POTENTIAL HABITAT FOR:	Fish, amphibians						
SURROUNDING LAND USE:	Forested, cleared ROW						
WETLAND FRINGE (IF PRESENT):	РЕМ						
COMMENTS							

 Site Photos
 Pond BN-06
 P-MJA-100523-01





NE N



Substrate



FEATURE ID Pond BN-07		ASSOCIATED FEATURES:					
Survey Type: Wetland and waterbodies delineation							
DATE: 10/04/2023	CLIENT/PROJECT NAME: FirstEnergy Buckeye Power-Nottingham						
INVESTIGATORS: MJA		ROUTE:					
STATE/COUNTY: OH Harrison			IS THIS A MAPPED NWI FEATURE?: YES PU	JBG			
WATERBODY CHARACTERISTICS							
WATERBODY TYPE:	Pond						
AVG. DEPTH:	3'						
AVG. WIDTH (WATER SURFACE):	80'						
APPROXIMATE SIZE:	1.9 acres						
		QUALITATIVE	ATTRIBUTES				
AVERAGE WATER APPEARANCE:	Clear						
PRIMARY SUBSTRATE (IF OBSERVED):	Silt						
POTENTIAL HABITAT FOR:	Bass observed						
SURROUNDING LAND USE:	Forested						
WETLAND FRINGE (IF PRESENT):	None						
COMMENTS							
Sulfur odor							

 Site Photos
 Pond BN-07
 P-MJA-100423-01





N E



S



Substrate



		0110 211	TH OHEET			
FEATURE ID Pond BN-08	ASSOCIATED FEATURES:					
Survey Type: Wetland and waterbodies delineation						
DATE: 10/04/2023	CLIENT/PROJECT NAME: FirstEnergy Buckeye Power-Nottingham					
Investigators: MJA		ROUTE:				
STATE/COUNTY: OH Harrison			IS THIS A MAPPED NWI FEATURE?: yes PUBGx			
WATERBODY CHARACTERISTICS						
WATERBODY TYPE:	Old quarry test pit					
AVG. DEPTH:	6'					
AVG. WIDTH (WATER SURFACE):	100'					
APPROXIMATE SIZE:	0.5 acre					
QUALITATIVE ATTRIBUTES						
AVERAGE WATER APPEARANCE:	High algae, murky					
PRIMARY SUBSTRATE (IF OBSERVED):	Silt, detritus					
POTENTIAL HABITAT FOR:	Bass observed					
SURROUNDING LAND USE:	Forested, cleared ROW					
WETLAND FRINGE (IF PRESENT):	PEM					
COMMENTS						

 Site Photos
 Pond BN-08
 P-MJA-100423-02





W SE



Substrate