

**AMERICAN TRANSMISSION SYSTEMS,
INCORPORATED
A FIRSTENERGY COMPANY**

CONSTRUCTION NOTICE

**LEVIS PARK-MIDWAY 138 KV
TRANSMISSION LINE SWITCH REPLACEMENT
PROJECT
OPSB CASE NO.: 24-0905-EL-BNR**

December 9, 2024

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

**CONSTRUCTION NOTICE
LEVIS PARK-MIDWAY 138 kV TRANSMISSION LINE
SWITCH REPLACEMENT PROJECT**

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

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

4906-6-05: Name and Reference Number

Name: Levis Park-Midway 138 kV Transmission Line Switch Replacement Project (“Project”)

Reference Number: 3026

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

In this Project, American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy company, proposes to replace an existing switch on the existing Levis Park-Midway 138 kV Transmission Line, with a new single-circuit steel three-pole switch structure on concrete foundations. The existing switch structure is a three-pole wood structure with guy wires and anchors that will be removed as part of the Project. The new structure will be located on the same centerline, approximately 80’ northeast from the existing structure OM-99. The conductor and shield wire will be transferred to the new structure.

The general location of the proposed Project is shown in Exhibits 1 and 2. Exhibit 1 is a partial copy of a United States Geologic Survey (“USGS”) Topographic Map, Lucas County, Ohio Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery. The general layout is shown in Exhibit 3. The Project is in the City of Waterville, Lucas County, Ohio.

4906-6-05 (B)(1): Construction Notice Requirement

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

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

(a) two miles or less

The proposed Project is within the requirements of Item (2)(a) as it involves replacing one (1) structure with a different type of structure on the same centerline as the existing transmission line within the existing right-of-way for a distance of less than 2 miles.

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

The existing Levis Park-Midway 138 kV Transmission Line air switch 13129P is damaged and not operational. Replacement is recommended because the switch is obsolete and the design no longer meets present standards. The switch was installed on a 3-pole wood structure in 1967 that is also reaching the end of its expected life. Pole shrinkage and deflection over time have subjected the switch to torsional and deflection stresses, resulting in the need for multiple adjustments to hardware attachments and leading to diminished reliability. In consultation with Engineering and Regional Operations, the combination of unavailability of parts, operational history, and continued changes in structure integrity, indicate that attempts to repair the switch, would be temporary in nature or unsuccessful.

The proposed solution is to replace both the structure and the switch, using an improved unitized design¹ meeting present engineering standards, while adding a motor capable of remote operation for enhanced system flexibility and personal safety.

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

The location of the Project relative to existing or proposed lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2024 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 24-0504-EL-FOR under Rule 4901:5-5:04 (C)(2)(b) of the Ohio Administrative Code. The map is incorporated by reference only. The Project is not included in ATSI's LTFR filed in 2024 because the Project does not entail any topology or rating change. The general location and layout of the Project area is shown in Exhibits 1 and 2.

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

Two alternatives were considered as part of this Project. The first alternative considered was to continue to maintain and repair the existing switch. This alternative was not chosen because the manufacturer no longer supports repair parts for the switches, thus requiring any replacement parts for repair to be fabricated (leading to long lead time and vulnerability to failure). The second alternative considered was to remove the switches from the transmission line. This alternative was not chosen because removing the switches entirely would result in an unacceptable sectionalizing scheme.

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

ATSI's manager of External Affairs will advise local officials of the features and status of the proposed Project as necessary. ATSI will maintain a Project website and will continue to work with property owners concerning the proposed Project. The website address is: https://www.firstenergycorp.com/about/transmission_projects/ohio.html.

¹ a "unitized" design is one in which all three phases of the operating mechanism are factory mounted to a single ridged rail and lifted to the structure as a unit. This is an improvement over the "phase-over-phase" design in which each phase is individually built onto a platform in the field from a box of parts. Factory assembly and testing removes field errors and mitigates deflection-caused binding because the switch on the frame moves as a single unit.

Finally, during all phases of this Project, ATSI will maintain the transmission projects hotline at 1-888-311-4737 or via email at: transmissionprojects@firstenergycorp.com where the public may ask questions or leave comments on the Project for ATSI.

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

The construction schedule for this Project is expected to begin as early as March 10, 2025, and to be completed by June 30, 2025.

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

Exhibit 1 provides a partial copy of the USGS Topographic Map, Lucas County, Ohio Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery.

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

The Project is located entirely within existing right-of-way on Parcel No. 9600011. No new Easements will be required for completion of this Project.

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: | 954 kcmil 45/7 ACSR (Existing) |
| Static Wire: | 7#10 Alumoweld (Existing) |
| Insulators: | Porcelain |
| ROW Width: | 80' |
| Structure Types: | Exhibit 4: One Steel 3-Pole Steel Switch Structure on Concrete Foundations |

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

There are no occupied residences or institutions within 100 feet from the proposed transmission line centerline and therefore no Electric and Magnetic Field (“EMF”) calculations are required by this subsection.

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

The estimated cost for the proposed Project is \$470,500. Although not statutorily required for approval, at the request of OPSB Staff, ATSI confirms that ATSI’s costs will be captured and allocated via FERC formula rates for the ATSI Transmission Zone, Attachment H-21 in the PJM OATT.

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

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

The Project is in the City of Waterville, Lucas County, Ohio. The Project area is in agriculturally zoned land. No significant changes or impacts to the current or future land use are anticipated.

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

Agricultural land (primarily cultivated cropland) exists within the Project’s Area of Potential Effect (“APE”), though the parcel is not designated as an Agricultural District.

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

As part of the investigation for this Construction Notice, on October 7, 2024, TRC Companies, Inc. (‘TRC’) submitted a request to the Ohio Historic Preservation Office (“SHPO”) on behalf of ATSI to review and provide comments for the Project Study Area (Area of Potential Effects or “APE”) with a one (1)-mile search radius. On November 4, 2024, SHPO replied to the request and the response is attached as Exhibit 5. SHPO concurred that the Project, as proposed, will not affect any historic properties or cultural resources. No further coordination is required unless the scope of work changes or new/additional archaeological deposits are discovered during construction.

The SHPO database also includes the Ohio Historic Inventory (“OHI”), the Ohio Archaeological Inventory (“OAI”), previous cultural resource surveys, and the Ohio Genealogical Society (“OGS”) cemetery inventory. The SHPO database includes all Ohio listings on the National Register of Historic Places (“NRHP”), including districts, sites,

buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The results of the search indicate that, within 1.0 mile of the Project Study Area, there are two NRHP-listed above-ground resources, one NRHP-listed historic district, and two NRHP-eligible above-ground historic resources. There are 73 above-ground historic resources that have not been formally evaluated for NRHP eligibility within 1.0 mile of the APE.

One OGS Cemetery is mapped 0.94 miles southeast of the Project's APE. Within 1.0 mile of the Project's APE, there are 44 OAI sites. 30 of these sites are pre-contact, 11 sites are historic, and three sites are multi-component pre-contact and historic archaeological sites. No impacts to any culturally significant resources are expected.

The Project will not impact the viewshed of any potential historic properties. Additionally, due to prior anthropogenic disturbances, the Project has a low potential to encounter intact, significant archaeological resources. The Project will have no adverse effect upon any cultural or archaeological resources.

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

No additional government agency authorizations or permits are required for this Project.

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

As part of the investigation, ATSI retained TRC to conduct necessary surveys. TRC submitted a request to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate to conduct an Environmental Review. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife's Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project Study Area. The ODNR's Office of Real Estate's response on October 23, 2024, stated that there are no records of state or federally listed plants and animals within one mile of the specified Project area. A copy of ODNR's Office of Real Estate's response is included as Exhibit 6.

In addition, the ODNR-DOW stated that the Project is within the vicinity of records for the Indiana bat (*Myotis sodalis*; State Endangered and Federally Endangered), the Northern long-eared bat (*Myotis septentrionalis*; State Endangered and Federally Endangered), and the tri-colored bat (*Perimyotis subflavus*; State Endangered). The entire state of Ohio is also within the range of the little brown bat (*Myotis lucifugus*; State Endangered). An on-site field assessment was performed by TRC on August 13, 2024. Field observations did not identify suitable habitat for these species identified in the immediate vicinity of the Project area. The DOW recommended a desktop bat hibernaculum assessment be completed for the Project, which TRC completed for ATSI and submitted to ODNR for concurrence on November 6, 2024. ODNR responded on November 14, 2024, attached as Exhibit 6A, concurring that no caves, cliffs, or mine openings occur in the Project Area. In addition, due to the type, size, and location, the proposed Project is not likely to impact these species.

No tree removal is necessary to complete this Project; therefore, this Project will not impact any tree species.

The ODNR-DOW also identified the Project is within the range of the cisco (*Coregonus artedii*; State Endangered), western banded killifish (*Fundulus diaphanatus menona*; State Endangered), and the lake sturgeon (*Acipenser fulvescens*; State Endangered). The Project is also in the range of the following mussel species, the pondhorn (*Unio tetrasmus*, State Threatened), eastern pondmussel (*Ligumia nasuta*, State Endangered), rayed bean (*Villosa fabalis*, Federally Endangered), and snuffbox (*Epioblasma triquetra*, Federally Endangered).

As part of the investigation, TRC also submitted a request to the U.S. Fish and Wildlife Service (“USFWS”) for an Ecological Review within one (1) mile of the Project area on September 25, 2024. A response was received from USFWS on October 2, 2024, and is included as Exhibit 7. The response states that due to the Project, type, size, and location, no adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat are anticipated.

The Project work limits will be entirely within the maintained transmission line corridor. Moreover, no trees will be cleared as a result of the Project. As such, the Project is not anticipated to adversely impact any state or federally listed species.

A list of all endangered, threatened, and rare species, as identified by ODNR and USFWS, is provided in Table 1.

Table 1. List of Endangered, Threatened, and Rare Species

| Common Name | Scientific Name | Federal Listed Status | State Listed Status | Preferred Habitat | Suitable Habitat Present within Study Area |
|--------------------------|------------------------------------|-----------------------|---------------------|-----------------------------|--|
| Indiana Bat | <i>Myotis sodalis</i> | Endangered | Endangered | Trees & Forest | No |
| Northern Long-Eared Bat | <i>Myotis septentrionalis</i> | Endangered | Endangered | Trees & Forest | No |
| Little Brown Bat | <i>Myotis lucifugus</i> | NA | Endangered | Trees & Forest | No |
| Tricolored Bat | <i>Perimyotis subflavus</i> | Proposed Endangered | Endangered | Trees & Forest | No |
| Cisco | <i>Coregonus artedi</i> | NA | Endangered | Lakes | No |
| Western Banded Killifish | <i>Fundulus diaphanatus menona</i> | NA | Endangered | Perennial streams and Lakes | No |
| Lake Sturgeon | <i>Acipenser fulvescens</i> | N/A | Endangered | Rivers and Lakes | No |
| Pondhorn | <i>Uniomerus tetralasmus</i> | NA | Threatened | Perennial Streams | No |
| Eastern pondmussel | <i>Ligumia nasuta</i> | NA | Endangered | Perennial Streams | No |
| Rayed bean | <i>Villosa fabalis</i> | Endangered | Endangered | Perennial Streams | No |
| Snuffbox | <i>Epioblasma triquetra</i> | Endangered | Endangered | Perennial Streams | No |

The Project work limits do not include any in-stream activities or encroach on any regulated flood plains based on a review of online FEMA Flood Insurance Rate Mapping.

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

TRC conducted a wetland and stream delineation for the Project, as shown in Exhibit 8. The Project Study Area is approximately 14.9-acres located in the City of Waterville, Lucas County, Ohio.

As part of the Environmental Review, the ODNR Office of Real Estate researched 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. No protected sites or public properties were identified.

The switch structure and foundations will be placed along developed ROW associated with the Levis Park-Midway 138 kV Transmission Line. Notification to the U.S. Army Corps of Engineers (USACE) is not required as no impacts to any Waters of the United States are proposed. Reasonable best-management practices will be used to ensure debris or sediment does not leave the Project site that could potentially impact nearby waterways.

The Project work limits do not include any in-stream activities or encroach on any regulated flood plains based on a review of online FEMA Flood Insurance Rate Mapping.

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 National Electrical Safety Code 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 Construction Notice Transmittal and Availability for Public Review

This Construction Notice application is being provided concurrently to the following officials in the City of Waterville, Lucas County, Ohio.

Lucas County

Commissioner Pete Gerken
President, Lucas County
Board of Commissioners
1 Government Center
Toledo, OH 43604
pgerken@co.lucas.oh.us

Commissioner Anita Lopez
Lucas County
Board of Commissioners
1 Government Center
Toledo, OH 43604
alopez@co.lucas.oh.us

Commissioner Lisa A. Sobecki
Lucas County
Board of Commissioners
1 Government Center
Toledo, OH 43604
lasobecki@co.lucas.oh.us

Mr. Mike Pniewski, P.E., P.S.
Lucas County Engineer
1049 S McCord Road,
Holland, OH 43528
mpniewski@co.lucas.oh.us

Ms. Burma Stewart, Director
Lucas County Planning and
Development Department
3737 W. Sylvania Avenue
Toledo, OH 43623
bstewart@co.lucas.oh.us

City of Waterville

Mr. Timothy Pedro, Mayor
City of Waterville
25 North Second Street,
Waterville, OH 43566-1491
tpedro@ctconsultants.com

Mr. Jon Gochenour
Municipal Administrator
City of Waterville
25 North Second Street,
Waterville, OH 43566-1491
jgoch@waterville.org

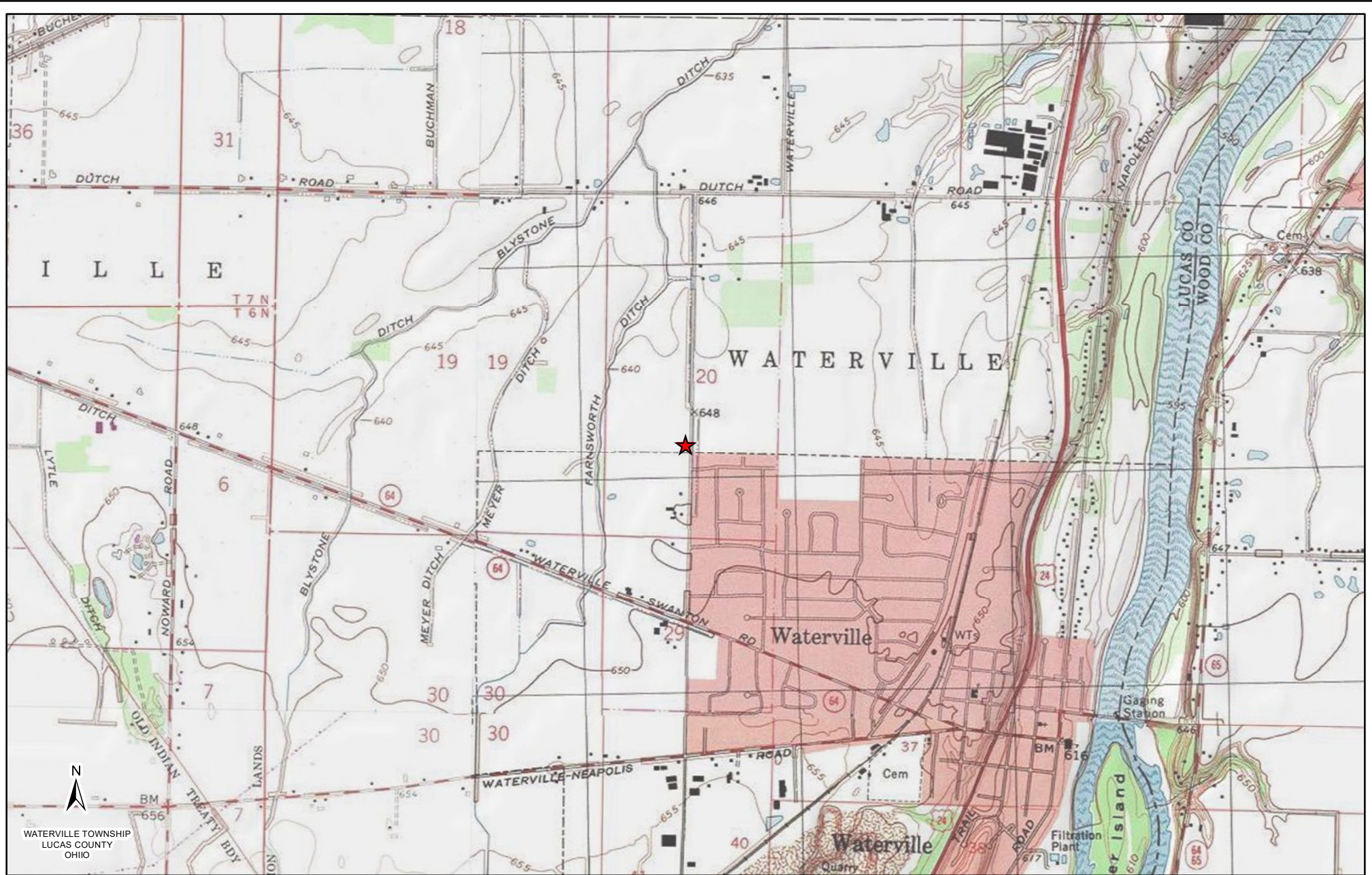
Mr. Mark Williams
Finance Director
City of Waterville
25 North Second Street,
Waterville, OH 43566-1491
mwilliams@waterville.org

Library

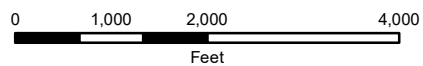
Mr. William Harbauer, Manager
Waterville Branch Library
800 Michigan Ave,
Waterville, OH 43566
william.harbauer@toledolibrary.org

Per Adm.Code 4906-6-07(B), exemplar copies of the notice letters sent to local government officials and to the library have been included with this application as proof of compliance with requirements of Adm.Code 4906-6-07(A)(1) and 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 Construction Notice application. The link to this website is being provided in accordance with Adm.Code 4906-6-07(B), which requires ATSI to provide the OPSB with proof of compliance with Adm.Code 4906-6-07(A)(3).




 WATERVILLE TOWNSHIP
 LUCAS COUNTY
 OHIO



Reference:
 USGS Topographical Overlay

Coordinate System:
 NAD 1983 StatePlane Ohio North FIPS 3401 Feet
 Projection: Lambert Conformal Conic; Units: Foot US

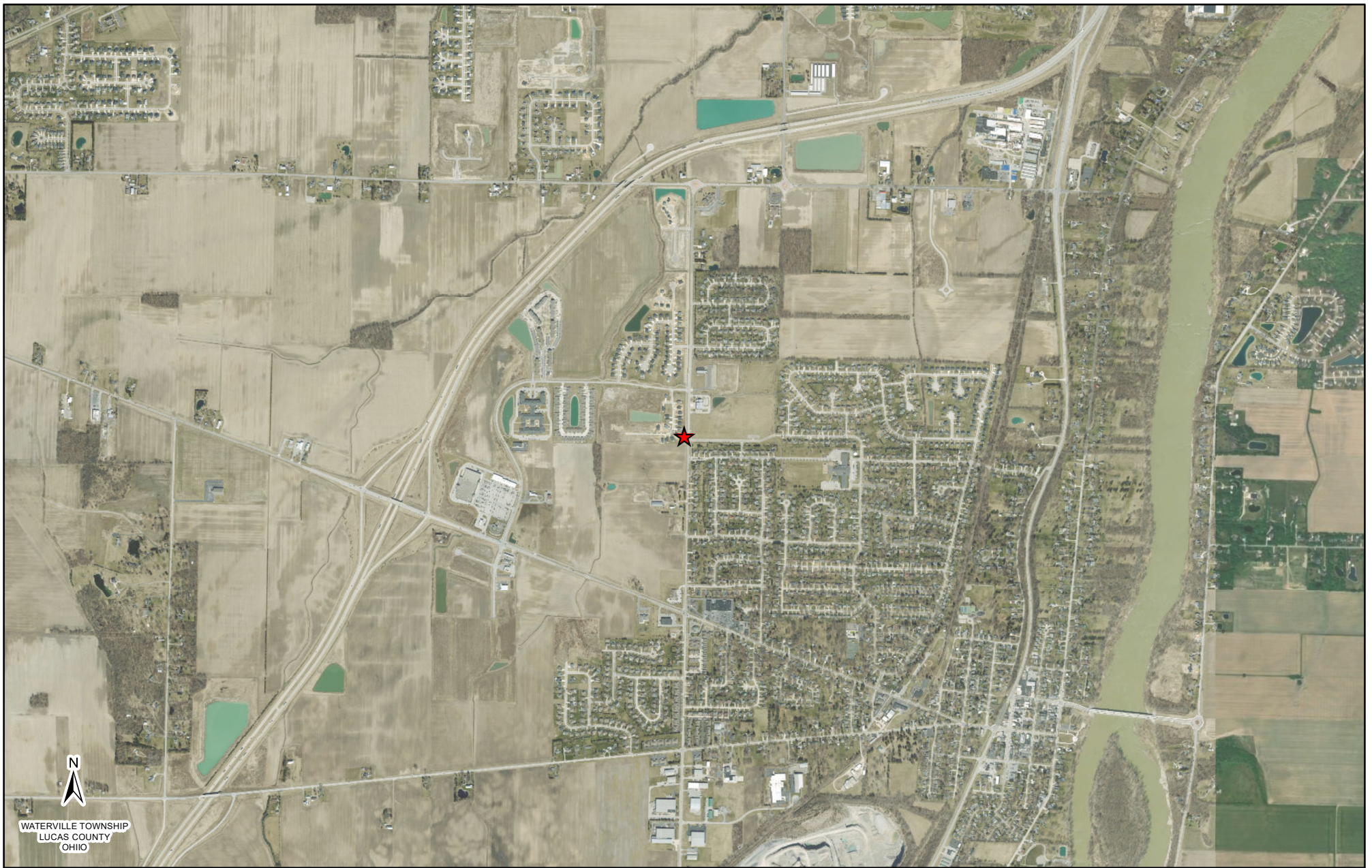


LEGEND:
 Project Area

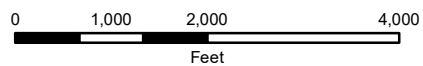
EXHIBIT 1



**Levis Park-Midway 138 kV
 Transmission Line Switch Replacement Project**



WATERVILLE TOWNSHIP
LUCAS COUNTY
OHIO



Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio North FIPS 3401 Feet
Projection: Lambert Conformal Conic; Units: Foot US

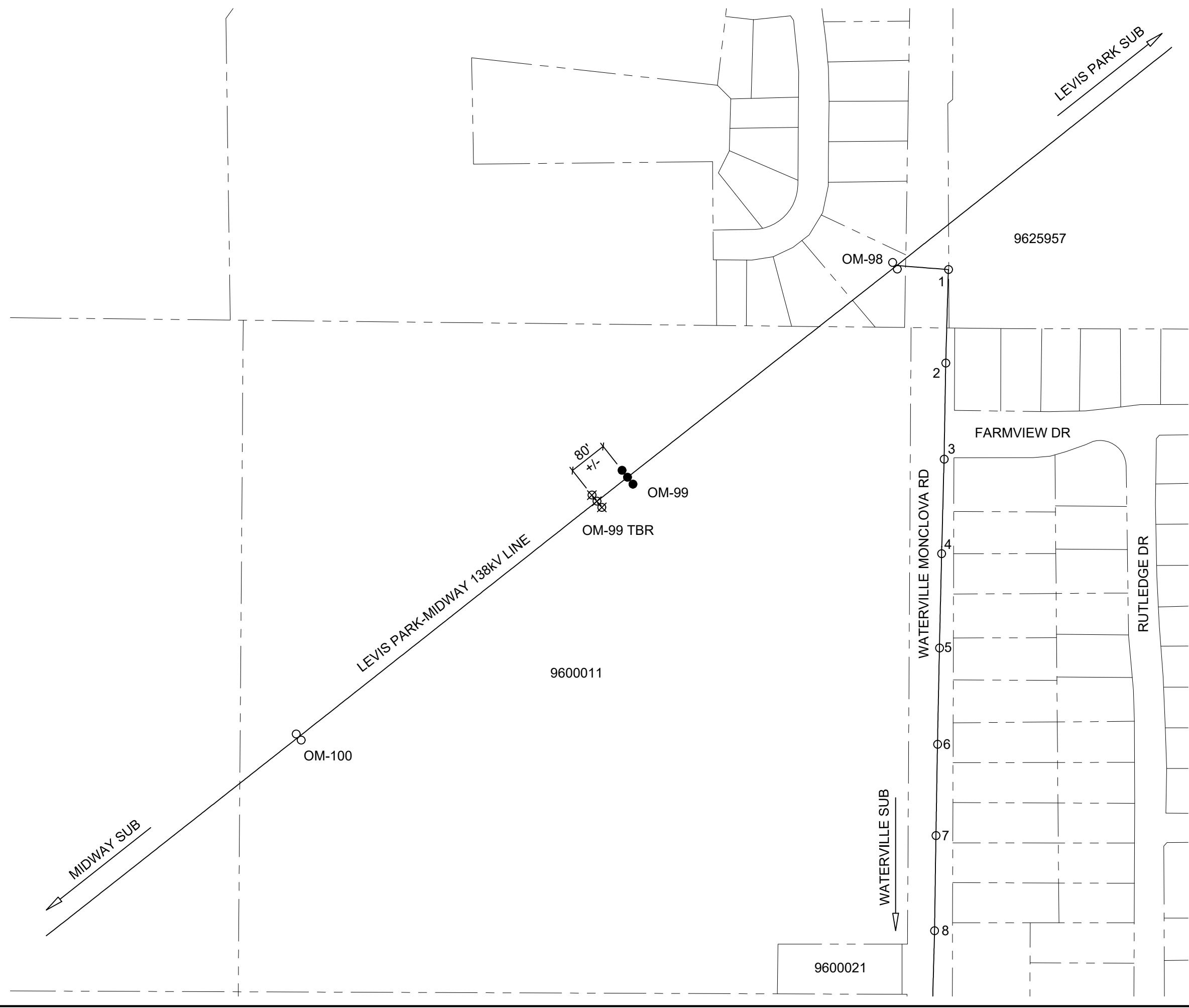


EXHIBIT 2



**Levis Park-Midway 138 kV
Transmission Line Switch Replacement Project**

LEGEND:
★ Project Area
— Roads



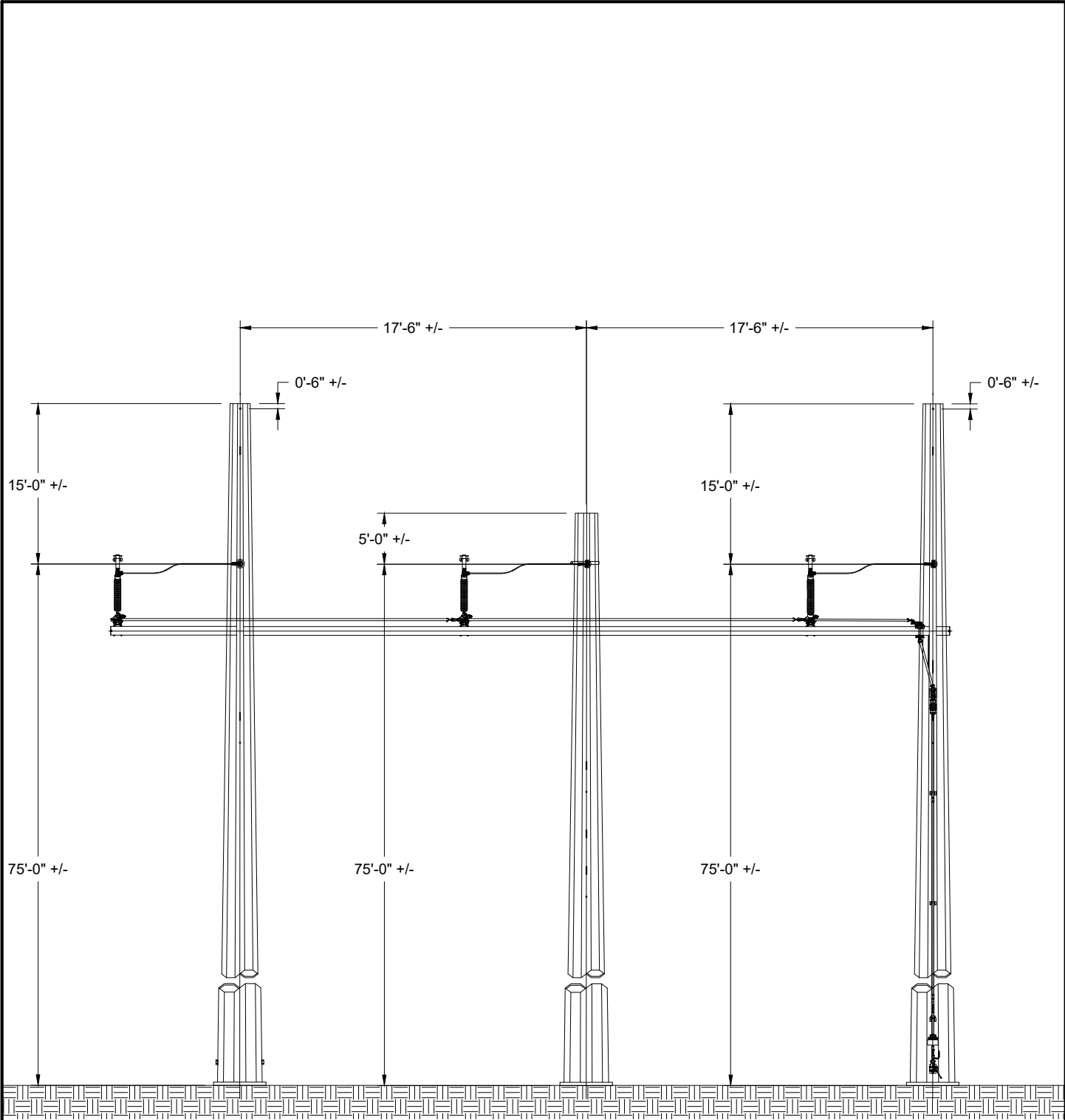
| LEGEND | |
|--------|--|
| ○ | --- EXISTING STRUCTURE TO REMAIN |
| ⊗ | --- EXISTING WOOD STRUCTURE TO BE REMOVED |
| ● | --- REPLACED STEEL STRUCTURE W/ FOUNDATION |
| — | --- TRANSMISSION CENTERLINE |
| - - - | --- PARCEL LINE |

ATSI
American Transmission Systems, Inc.

**LEVIS PARK-MIDWAY 138KV LINE
SWITCH STRUCTURE
REPLACEMENT PROJECT**

GENERAL LAYOUT

EXHIBIT 3



SCALE: NTS



LEVIS PARK-MIDWAY 138kV LINE
 SWITCH STRUCTURE
 REPLACEMENT PROJECT

138KV STEEL POLE STRUCTURE WITH CONCRETE FOUNDATIONS
 2000A 750KV BIL UNITIZED SWITCH WITH WHIP INTERRUPTION

EXHIBIT 4



EXHIBIT 5

In reply refer to:
2024-LUC-62546

November 4, 2024

Justin McKissick, MA, RPA
Project Archaeologist/Field Director
TRC Environmental Corporation
317 E Carson Street, Suite 113
Pittsburgh, PA 15219
Email: JMcKissick@trccompanies.com

RE: Section 106 Review: Levis Park-Midway Switch Replacement Project, Waterville, Lucas County, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on October 7, 2024, regarding the above-referenced project in Lucas County, 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 (O.R.C.) and the Ohio Power Siting Board rules for siting this project. 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 involves the replacement of a switch along the Levis Park-Midway 138kV transmission line. Based on information submitted by you, which included a Project Summary Form, no historic properties, districts, or archaeological sites are located within the direct Area of Potential Effect (APE), as defined by you. While there are resources fifty years of age or older within the Study Area, removal and replacement of the existing switch will not create new visual impacts. Therefore, it is our opinion that there will be no effect on historic resources as a result of the project. No cultural resource studies are warranted for the project. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted. If you have any questions concerning this review, please contact either myself via email at sbiehl@ohiohistory.org or Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Stephen M. Biehl".

Stephen M. Biehl, Project Reviews Manager-Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1105130



**OHIO HISTORIC PRESERVATION OFFICE:
RESOURCE PROTECTION AND REVIEW**

Section 106 Review - Project Summary Form

For projects requiring a license from the Federal Communications Commission, please use FCC Forms 620 or 621. DO NOT USE THIS FORM.

SECTION 1: GENERAL PROJECT INFORMATION

All contact information provided must include the name, address and phone number of the person listed. Email addresses should also be included, if available. Please refer to the Instructions or contact an OHPO reviewer (mailto:Section106@ohiohistory.org) if you need help completing this Form. Unless otherwise requested, we will contact the person submitting this Form with questions or comments about this project.

| |
|--|
| Date: 10/07/2024 |
| Name/Affiliation of person submitting form: Justin McKissick, MA, RPA |
| Mailing Address: 317 E. Carson Street, Suite 113, Pittsburgh, PA 15219 |
| Phone/Fax/Email: 412.660.7937/jmckissick@trccompanies.com |

A. Project Info:

1. This Form provides information about:

New Project Submittal:

YES

Additional information relating to previously submitted project:

NO

OHPO/RPR Serial Number from previous submission:

2. Project Name (if applicable): **Levis Park-Midway Switch Replacement Project**

3. Internal tracking or reference number used by Federal Agency, consultant, and/or applicant to identify this project (if applicable): **429847.0022.0050**

- B. Project Address or vicinity: **The proposed Study Area begins from the northeastern extent, just north of the intersection of Waterville Monclova Road and Royal Hampton Lane (41.511593, -83.737887) and extends 0.58 miles (mi) southwest to a point 500 feet (ft) southeast of the intersection of Michigan Avenue and Pray Boulevard (41.506355, -83.746449). A proposed access road begins at Waterville Monclova Road (41.508589, -83.738209) and extends westward to the Study Area.**
- C. City/Township: **City of Waterville**
- D. County: **Lucas County**
- E. Federal Agency and Agency Contact. *If you do not know the federal agency involved in your project, please contact the party asking you to apply for Section 106 Review, not OHPO, for this information. HUD Entitlement Communities acting under delegated environmental review authority should list their own contact information. **N/A***
- F. Type of Federal Assistance. *List all known federal sources of federal funding, approvals, and permits to avoid repeated reviews. **N/A***
- G. State Agency and Contact Person (if applicable): **Ohio Power Siting Board (OPSB)**
- H. Type of State Assistance: **N/A**
- I. Is this project being submitted at the direction of a state agency **solely** under Ohio Revised Code 149.53 or at the direction of a State Agency? *Answering yes to this question means that you are sure that no federal funding, permits or approvals will be used for any part of your project, and that you are seeking comments only under ORC 149.53.*
NO
- J. Public Involvement- Describe how the public has been/will be informed about this project and its potential to affect historic properties. Please summarize how they will have an opportunity to provide comments about any effects to historic properties. (This step is required for all projects under 36 CFR § 800.2):
- K. Please list other consulting parties that you have contacted/will contact about this project, such as Indian Tribes, Certified Local Governments, local officials, property owners, or preservation groups. (See 36 CFR § 800.2 for more information about involving other consulting parties). Please summarize how they will have an opportunity to provide comments: **N/A**

SECTION 2: PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Provide a description of your project, its site, and geographical information. You will also describe your project's Area of Potential Effects (APE). Please refer to the Instructions or contact an OHPO reviewer if you need help with developing the APE or completing this form.

For challenging projects, provide as much information as possible in all sections, and then check the box in Section 5.A. to ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties or if there may be challenging procedural issues related to your project. Please note that providing information to complete all Sections will still be required and that asking OHPO for preliminary comments may tend to

delay completion of the review process for some projects.

A. Does this project involve any Ground-Disturbing activity: **YES**

(If **Yes**, you must complete all of Section 2.A. If **No**, proceed directly to Section 2. B.)

1. General description of width, length and depth of proposed ground disturbing activity:

The Limits of Disturbance (LOD) which corresponds to the Area of Potential Effects (APE) for direct effects, will be completely within the Study Area, which measures 14.87 acres (ac) in size (Figure 2). The 150-ft wide Study Area extends southwest from Waterville Monclova Road for 0.58 mi to Michigan Avenue. A proposed access road extends just over 1,000 ft. All work will be contained within the existing right-of-way. Timber matting will be utilized at the surface for any necessary wetland crossings. Tree clearing and grubbing is not anticipated within the Study Area.

2. Narrative description of previous land use and past ground disturbances, if known: **Historically, the landscape was likely agricultural fields or wooded landscapes with development occurring predominately throughout the twentieth and into the twenty-first centuries. Buildings are mapped in the southwestern extent as early as 1861 and at the eastern extent by the access road as early as 1875.**

3. Narrative description of current land use and conditions: **The modern aerial imagery shows a developing suburban and semi-rural landscape with the Study Area composed of agricultural field, pasture, grass fields, and an existing farmstead. The Study Area is surrounded by agricultural fields, residential developments, and commercial properties. General overview photographs are provided as Attachment 1.**

4. Does the landowner know of any archaeological resources found on the property?
YES NO If yes, please describe: **Unknown**

B. Submit the exact project site location on a USGS 7.5-minute topographic quadrangle map for all projects. Map sections, photocopies of map sections, and online versions of USGS maps are acceptable as long as the location is clearly marked. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:

1. USGS Quad Map Name: **Maumee, OH**
2. Township/City/Village Name: **City of Waterville**

C. Provide a street-level map indicating the location of the project site; road names must be identified and legible. Your map must show the exact location of the boundaries for the project site. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map: **See Figure 2**

D. Provide a verbal description of the APE, including a discussion of how the APE will include areas with the potential for direct and indirect effects from the project. Explain the steps taken to identify the project's APE, and your justification for the specific boundaries chosen:

The APE will include all areas in which construction activities associated with the proposed Project will take place. The surficial ground disturbances will primarily be associated with vehicle access within the disturbed ROW to complete the switch replacements. The APE will also include a viewshed that will be based on LIDAR data,

vegetation, topography, and buildings, which will reduce the APE to areas with positive visibility of the Project infrastructure within 0.25 miles (mi) of the undertaking. While there are buildings adjacent to the Study Area that are over 50 years of age, removal and replacement of the existing switches will not create new visual impacts.

- E. Provide a detailed description of the project. This is a critical part of your submission. Your description should be prepared for a cold reader who may not be an expert in this type of project. The information provided must help support your analysis of effects to historic properties, not other types of project impacts. Do not simply include copies of environmental documents or other types of specialized project reports. If there are multiple project alternatives, you should include information about all alternatives that are still under active consideration:

The proposed Project involves the replacement of an existing switch on the Levis Park-Midway 138kV transmission line. All work will be contained within existing ROW.

SECTION 3: IDENTIFICATION OF HISTORIC PROPERTIES

Describe whether there are historic properties located within your project APE. To make that determination, use information generated from your own Background Research and Field Survey. Then choose one of the following options to report your findings. Please refer to the Instructions and/or contact an OHPO reviewer if you are unsure about how to identify historic properties for your project.

TRC performed a desktop review based on data received from the Ohio History Connection (OHC) on September 25, 2024, to identify the presence of previously recorded significant historic properties, including above-ground historic resources and/or archeological sites, mapped within one (1)-mi of the Study Area. The file review revealed there are two (2) NRHP-listed above-ground historic resources, one (1) NRHP-listed historic district, and two (2) NRHP-eligible above-ground historic resources recorded within one (1) mi of the Study Area (Figure 3). Table 1 below contains a list of the historic properties with associated attributes in relation to the Study Area.

Table 1: Historic Properties within one (1) mi of the Study Area.

| Ref/DOE No. | Resource Name | NRHP Eligibility | Distance (mi) | Direction |
|--------------------|--|-------------------------|----------------------|------------------|
| 75001474 | Gillett-Shoemaker-Welsh House | Listed | 0.99 mi | Southeast |
| 75001475 | Haskins, Liberty Whitcomb House | Listed | 0.96 mi | East-Southeast |
| 92001159 | John Isham Farmstead Historic District | Listed | 0.93 mi | South |
| 1889 | Waterville Methodist CCH | Eligible | 0.94 mi | Southeast |
| 3932 | 2000HEN1207 | Eligible | 0.65 mi | Northwest |

In addition, there are 73 above-ground historic resources that has not been formally evaluated for NRHP eligibility mapped within one (1)-mi of the proposed Project, the nearest of these are located 0.38 mi northwest of the southwestern extent of the Study Area. There is one (1) Ohio Genealogical Society (OGS) Cemetery mapped 0.94 mi southeast of the proposed Project.

Twelve formal archaeological surveys have been completed within one (1)-mi of the Study Area. Portions of three (3) of these surveys overlap with the northeastern, southwestern, and eastern extents of the proposed Project. From these surveys, as well as local informants, there are 44 archaeological sites recorded within one (1)-mi of the Study Area. The sites include 30 pre-contact sites, 11 historic sites, and three

(3) multi-component pre-contact and historic archaeological sites. The pre-contact sites range in dates from unknown to the Paleolithic; Early, Middle and, Late Archaic; Early, Middle, and Late Woodland; and Late Prehistoric Periods. Historic sites in the region include residential and subsistence sites that date to the eighteenth, nineteenth, and twentieth centuries. Two (2) historic archaeological sites, 33LU767 and 33LU777, are recorded just west of the southwestern Study Area extent within areas that have been previously surveyed. Both sites have been recommended not eligible for listing in the NRHP and will not be impacted by the proposed Project.

A review of available historic maps was conducted to determine the presence of potential historic structures and buildings (50 years of age or older) and other possible historic features within or adjacent to the Study Area that may be impacted by the proposed Project. Waterville Township was established in 1831 from Waynesfield Township.

By 1861, the region had been settled with widely spaced buildings along established roadways. The Study Area crossed several parcels attributed to *J. Cole*, *W. Pray*, *M. Mast*, and *T. Shoemaker*. One (1) building was denoted on the *J. Cole* parcel that appears in the surveyed area. No other buildings were documented in the vicinity. Waterville Monclova Road had not yet been constructed. The City of Waterville had been established to the southeast and was the densest populated area. The *Miami Canal* was mapped crossing through Waterville as well (Attachment 2, Image 1) (Janey and Janey 1861).

In 1875, the overall landscape remained similar. The Study Area is mapped on parcels attributed to *Louisa F. Cole*, *Jas. Shoemaker*, *Mary Haskins*, and *Michael Mast*. Waterville Monclova Road had been constructed and a dwelling was first mapped on the *Michael Mast* parcel, just west of the northeastern extent of the Study Area. A building was also denoted on the *Louisa F. Cole* parcel, formerly attributed to *J. Cole*. The City of Waterville remained the most populated area in the vicinity of the Study Area in 1875 (Attachment 2, Image 2) (Andreas and Baskin 1875).

The 1901 historic map displays a similar landscape with widely spaced buildings along established roadways. The Study Area was mapped on parcels attributed to *Chas. A. Cole*, *Elin & Arthur Mast*, *Lucy S. Haskins*, and *Clearance Shoemaker*. Buildings were mapped on the *Cole*, *Mast*, and *Haskins* parcels within or adjacent to the Study Area. The *Toledo, St. Louis, and Kansas City Railroad* line was first displayed on mapping in 1901, just west of the City of Waterville, which grew slightly in size. The canal also appears to have still been in use as it is recorded through the city (Attachment 2, Image 3) (Uhl Bros. Co. 1901).

The 1952/1964 historic USGS map displays a rural landscape with development centered around the City of Waterville. Buildings are mapped in the vicinity of the southwestern and eastern Study Area extents. The existing utility line corridor was not yet documented on these maps (Attachment 2, Image 4) (USGS 1952a, 1952b, 1964a, and 1964b).

From the mid-twentieth to late-twentieth and into the twenty-first century, the landscape surrounding the Study Area continued to grow as new residential developments with commercial areas were constructed in association with an increase in the regional population. The dwelling and several outbuildings, likely associated with the former *J. Cole* parcel from 1861, at the southwestern extent of the Study Area were razed between 2010 and 2011, with the remaining buildings demolished between 2018 and 2021. The farmstead at the eastern extent of the Study remains an active farm today.

If you read the Instructions and you're still confused as to which reporting option best fits your project, or you are not sure if your project needs a survey, you may choose to skip this section, but provide as much supporting documentation as possible in all other Sections, then check the box in Section 5.A. to request preliminary comments from OHPO. After reviewing the information provided, OHPO will then offer comments as to which reporting option is best suited to document historic properties for your project. Please note that providing information to complete this Section will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

Recording the Results of Background Research and Field Survey:

- A. **Summary of discussions and/or consultation with OHPO** about this project that demonstrates how the Agency Official and OHPO have agreed that no Field Survey was necessary for this project (typically due to extreme ground disturbance or other special circumstances). Please **attach copies** of emails/correspondence that document this agreement. You must explain how the project's potential to affect both archaeological and historic resources were considered. **N/A**

- B. **A table that includes the minimum information** listed in the OHPO Section 106 Documentation Table (which is generally equivalent to the information found on an inventory form). This information must be printed and mailed with the Project Summary Form. To provide sufficient information to complete this Section, you must also include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated in the project APE. **N/A**

- C. **OHI (Ohio Historic Inventory) or OAI (Ohio Archaeological Inventory) forms-** New or updated inventory forms may be prepared using the OHI pdf form with data population capabilities, the Internet IForm, or typed on archival quality inventory forms. To provide sufficient information to complete this Section, you must include summary observations from your field survey and background research. You must also include eligibility determinations for each property that was evaluated in the project APE. **N/A**

- D. **A historic or archaeological survey report** prepared by a qualified consultant that meets professional standards. The survey report should meet the Secretary of the Interior's Standards and Guidelines for Identification and OHPO Archaeological Guidelines. You may also include new inventory forms with your survey or update previous inventory forms. To complete this section, your survey report must include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated within the APE. **N/A**

- E. **Project Findings.** Based on the conclusions you reached in completing Section 3, please choose one finding for your project. There are (mark one):
 - Historic Properties Present in the APE: **N/A**

 - No Historic Properties Present in the APE: **N/A**

SECTION 4: SUPPORTING DOCUMENTATION

This information must be provided for all projects.

- A. Photographs must be keyed to a street-level map and should be included as attachments to this application. Please label all forms, tables, and CDs with the date of your submission and project name, as identified in Section 1. You must present enough documentation to clearly show existing conditions at your project site and convey details about the buildings, structures or sites that are described in your submission. Faxed or photocopied photographs are not acceptable. See

Instructions for more info about photo submissions or 36 CFR § 800.11 for federal documentation standards.

1. Provide photos of the entire project site and take photos to/from historic properties from/towards your project site to support your determination of effect in Section 5. **See Attachment 1 - Photographs**
 2. Provide current photos of all buildings/structures/sites described.
- B. Project plan, specifications, site drawings and any other media presentation that conveys detailed information about your project and its potential to affect historic properties.
- C. Copies or summaries of any comments provided by consulting parties or the public.

SECTION 5: DETERMINATION OF EFFECT

- A. **Request Preliminary Comments.** For challenging projects, provide as much information as possible in previous sections and ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties, if the public has concerns about your project's potential to affect historic properties, or if there may be challenging procedural issues related to your project. Please be aware that providing information in all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

1. We request preliminary comments from OHPO about this project:

YES

2. Please specify as clearly as possible the particular issues that you would like OHPO to examine for your project (for example- help with developing an APE, addressing the concerns of consulting parties, survey methodology, etc.):

Please review the provided information and respond with your determination relative to the potential effects to cultural resources, if any.

- B. **Determination of Effect.** If you believe that you have gathered enough information to conclude the Section 106 process, you may be ready to make a determination of effect and ask OHPO for concurrence, while considering public comments. Please select and mark one of the following determinations, then explain the basis for your decision on an attached sheet of paper:

No historic properties will be affected based on 36 CFR § 800.4(d) (1).
Please explain how you made this determination:

No Adverse Effect [36 CFR § 800.5(b)] on historic properties. This finding cannot be used if there are no historic properties present in your project APE. Please explain why the Criteria of Adverse Effect, [36 CFR Part 800.5(a) (1)], were found not to be applicable for your project:

Adverse Effect [36 CFR § 800.5(d) (2)] on historic properties. Please explain why the criteria of adverse effect, [36 CFR Part 800.5(a) (1)], were found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated:

Please send completed form and supporting documentation to our office through the section106@ohiohistory.org e-mail address. Note that file size is limited to 30 MB. The Ohio SHPO has a federally mandated review time of 30 calendar day. To check your submission was received and logged in for our review, please visit <https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpreviews/section-106-project-status>.

REFERENCES

Janey, J.D. and E. Janney

1861 Map of Lucas Co., Ohio. Published by J.D. and E. Janney, Pennsylvania. Electronic document, <https://www.loc.gov/resource/g4083l.la000647/?r=0.833,0.823,0.075,0.047,0>, accessed September 26, 2024.

Uhl Bros. Co.

1901 "Waterville, Bailey, Whitehouse Village" in Lucas County, Ohio. Electronic document, <https://historicmapworks.com/Map/US/44382/Waterville+-+Bailey+-+Whitehouse+Village/Lucas+County+1901/Ohio/>, accessed September 26, 2024.

Andreas and Baskin

1875 "Map of Waterville Township" in An Illustrated Historical Atlas of Lucas and Parts of Woods Counties, Ohio. Published by Andreas and Baskin, Chicago, Illinois. Electronic document, <https://ohiomemory.org/digital/collection/p16007coll33-/id/88898>, accessed September 26, 2024.

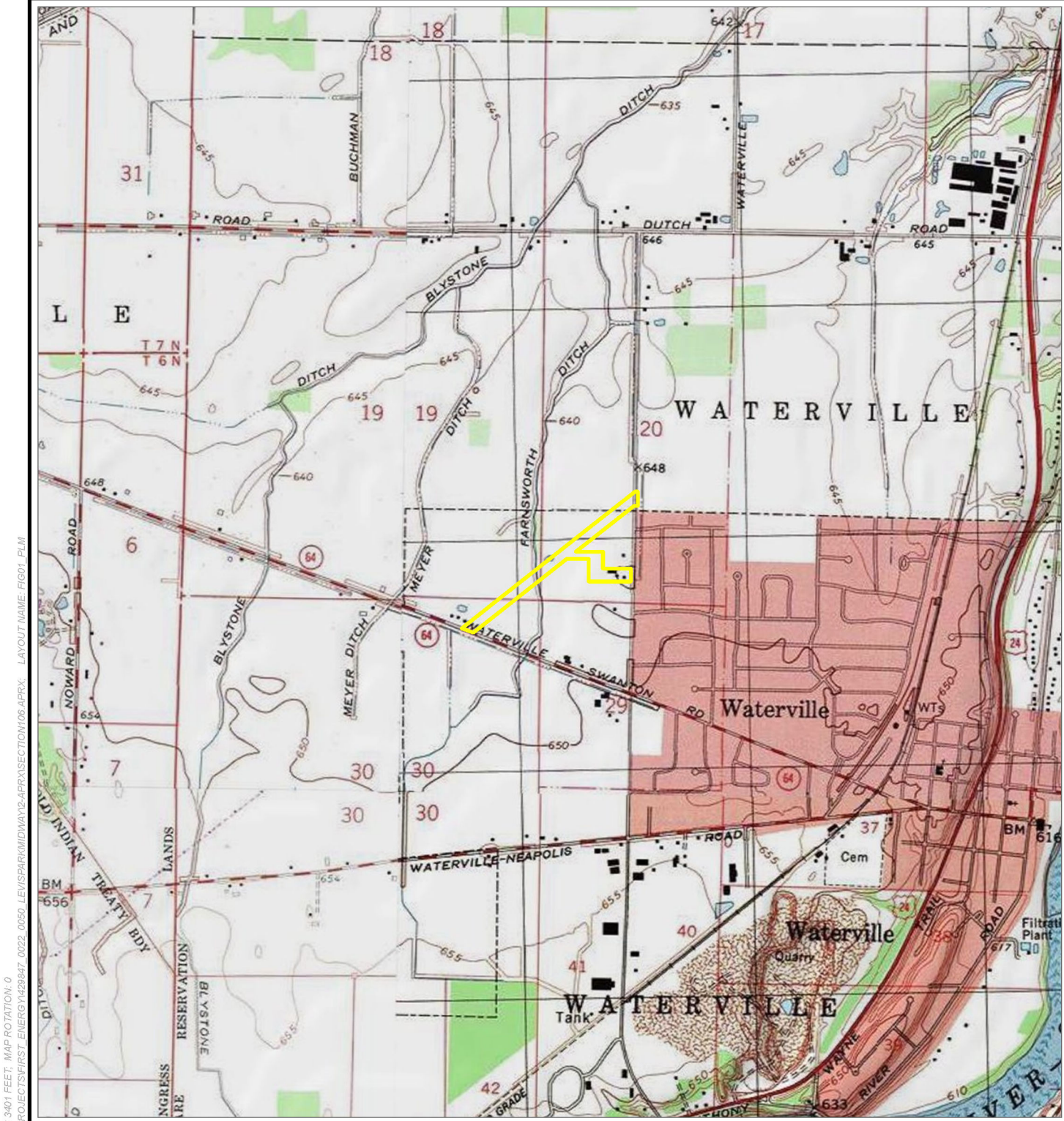
United States Geographical Survey (USGS)

1952a *Grand Rapids, OH, 7.5-minute series topographic series.* Electronic document, <https://ngmdb.usgs.gov/topoview/viewer/#14/41.5056/-83.7401>, accessed September 26, 2024.

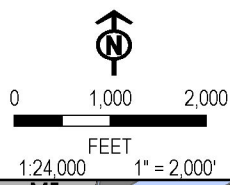
1952b *Tontogany, OH, 7.5-minute series topographic series.* Electronic document, <https://ngmdb.usgs.gov/topoview/viewer/#14/41.5056/-83.7401>, accessed September 26, 2024.

1964a *Maumee, OH, 7.5-minute series topographic series.* Electronic document, <https://ngmdb.usgs.gov/topoview/viewer/#14/41.5056/-83.7401>, accessed September 26, 2024.

1964b *Whitehouse, OH, 7.5-minute series topographic series.* Electronic document, <https://ngmdb.usgs.gov/topoview/viewer/#14/41.5056/-83.7401>, accessed September 26, 2024.



 PROJECT STUDY AREA



BASE MAP: USA TOPO MAPS MAP SERVICE, MAUMEE QUAD

PROJECT: **FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT**
LUCAS COUNTY, OH

TITLE: **PROJECT LOCATION MAP**

| | |
|----------------------------|-----------------------------|
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: J. MCKISSICK | FIGURE 1 |
| APPROVED BY: B. FALKINBURG | |
| DATE: SEPTEMBER 2024 | |

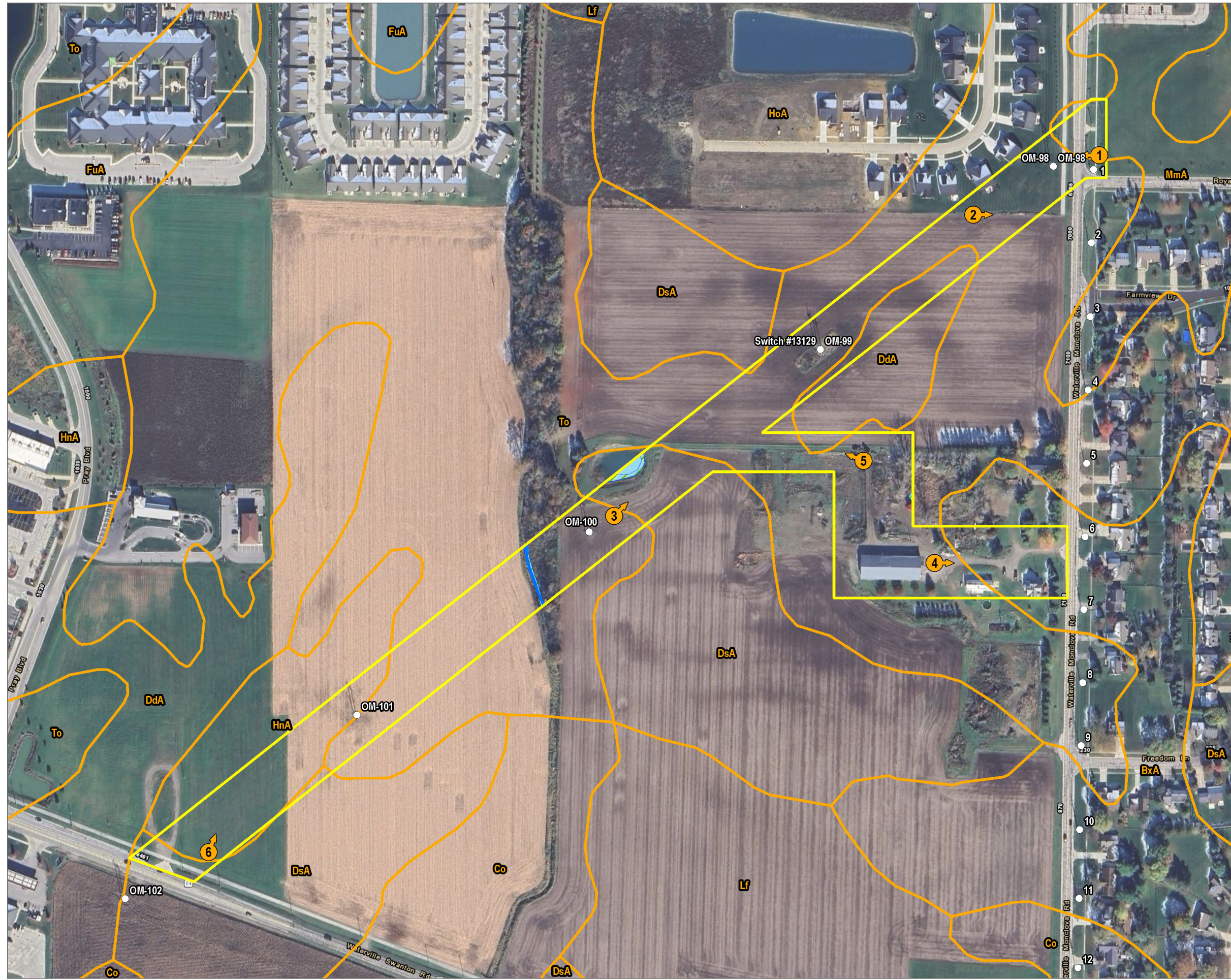


1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: SECTION106

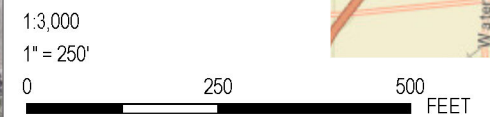
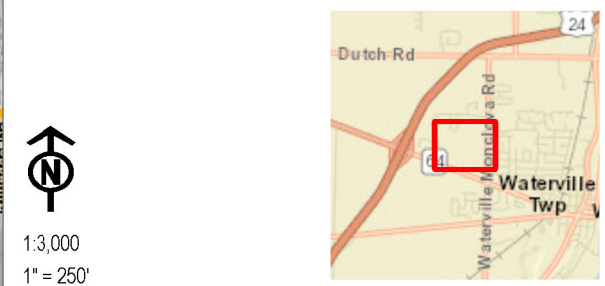
COORDINATE SYSTEM: NAD 1983 STATEPLANE OHIO NORTH RIPS 3401 FEET, MAP ROTATION: 0
 -- SAVED BY: MOPEL ON 9/27/2024, 13:35:05 PM. FILE PATH: T:\1-PROJECTS\FIRST_ENERGY\429847_0022_0050_LEVIS PARK-MIDWAY\2-APR\SECTION106.APRX. LAYOUT NAME: FIG01_PLM


Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
- Saved By: MOPEL on 9/27/2024, 13:36:30 PM; File Path: T:\1-PROJ\EC\TS\Fir_Energy\429847_0022_0050_LevisParkMidway\2-APRX\Section106.aprx; Layout Name: Fig02_Aerial

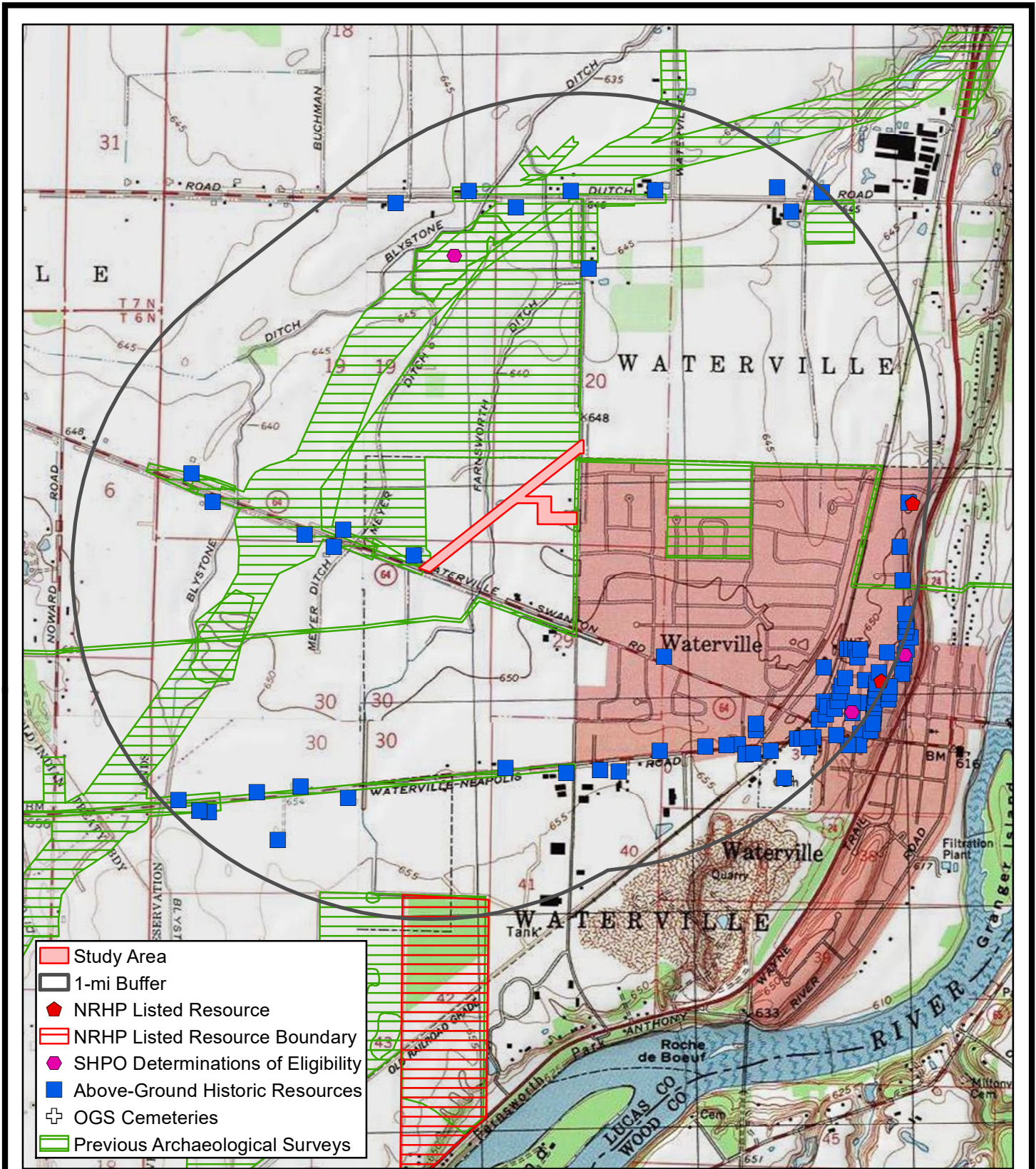


- PROJECT STUDY AREA
- EXISTING STRUCTURE
- DELINEATED STREAM
- DELINEATED POND
- DELINEATED WETLAND
- MAPPED SOIL UNIT
- PHOTO LOCATION


BASE MAP: GOOGLE MAPS.



| | |
|---|---|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: AERIAL BASEMAP WITH PHOTO LOCATIONS | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: J. MCKISSICK | FIGURE 2 |
| APPROVED BY: B. FALKINBURG | |
| DATE: SEPTEMBER 2024 | |
|  | 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 |
| FILE: | Section106.aprx |



BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLES

N 1" = 2,083' 0 500 1,000
 1:25,000 FEET

 317 E. Carson Street
 Suite 113
 Pittsburgh, PA 15219
 TRC - GIS

PROJECT: **Levis Park-Midway Switch Replacement Project**
 TITLE: **OHC Database Search Results Map**

| | |
|--------------|----------------------|
| DRAWN BY: | JUSTIN MCKISSICK |
| CHECKED BY: | CURTIS BIONDICH |
| APPROVED BY: | CURTIS BIONDICH |
| DATE: | SEPTEMBER 2024 |
| PROJ. NO.: | 429847.0022.0050 |
| FILE: | LevisPark-Midway.mxd |

Figure 3



ATTACHMENT 1
Photographs

| | | |
|--|---|--|
| Client Name: FirstEnergy Corporation | Site Location: City of Waterville, Lucas County, Ohio | Project No. 429847.0022.0050 |
|--|---|--|

| | |
|---|---|
| Photo No. 1. |  |
| Date: 08/13/2024 | |
| Description: Facing west, viewing the landscape at the northeastern extent of the Study Area. | |

| | |
|--|--|
| Photo No. 2. |  |
| Date: 08/13/2024 | |
| Description: Facing east, viewing the landscape at the northeastern portion of the Study Area. | |

| | | |
|--|---|--|
| Client Name: FirstEnergy Corporation | Site Location: City of Waterville, Lucas County, Ohio | Project No. 429847.0022.0050 |
|--|---|--|

| | |
|--|---|
| Photo No. 3. |  |
| Date: 08/13/2024 | |
| Description: Facing northeast, viewing the landscape within the central portion of the Study Area. | |

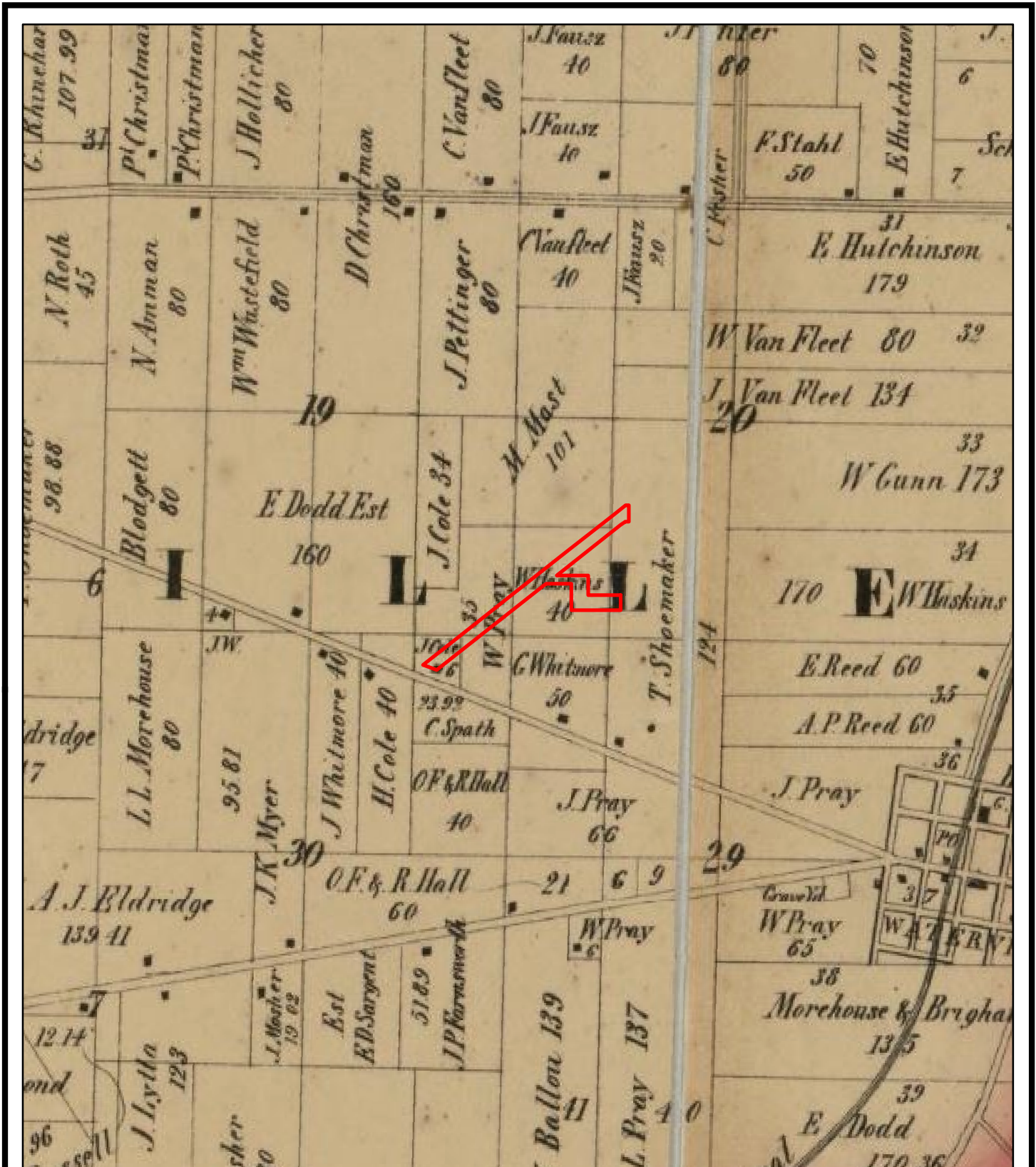
| | |
|---|--|
| Photo No. 4. |  |
| Date: 08/13/2024 | |
| Description: Facing east, viewing the dwelling from the farmstead at the eastern extent of the access road portion of the Study Area. | |

| | | |
|--|---|--|
| Client Name: FirstEnergy Corporation | Site Location: City of Waterville, Lucas County, Ohio | Project No. 429847.0022.0050 |
|--|---|--|

| | |
|--|---|
| Photo No. 5. |  |
| Date: 08/13/2024 | |
| Description: Facing west-northwest, viewing the landscape along the access road portion of the Study Area. | |

| | |
|--|--|
| Photo No. 6. |  |
| Date: 08/13/204 | |
| Description: Facing north-northeast, viewing the landscape at the southwestern extent of the Study Area. | |

ATTACHMENT 2
Historic Map Images



BASEMAP FROM MAP of LUCAS CO., OHIO

*Image overlay is approximate

| | | | | |
|--|----------|---|-------------------------------|----------------------|
| | PROJECT: | Levis Park-Midway Switch Replacement Project | DRAWN BY: | JUSTIN MCKISSICK |
| | TITLE: | Study Area circa 1861 (Janey and Janey) | CHECKED BY: | CURTIS BIONDICH |
| <p>317 E. Carson Street Suite 113 Pittsburgh, PA 15219</p> | | | APPROVED BY: | CURTIS BIONDICH |
| | | | DATE: | SEPTEMBER 2024 |
| | | | PROJ. NO.: | 429847.0022.0050 |
| | | | FILE: | LevisPark-Midway.mxd |
| | | | Attachment 2 - Image 1 | |



BASEMAP FROM AN ILLUSTRATED HISTORICAL ATLAS of LUCAS and PARTS of WOOD COUNTIES, OHIO

*Image overlay is approximate

N
1" = 1,667' 0 500 1,000
1:20,000 FEET

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

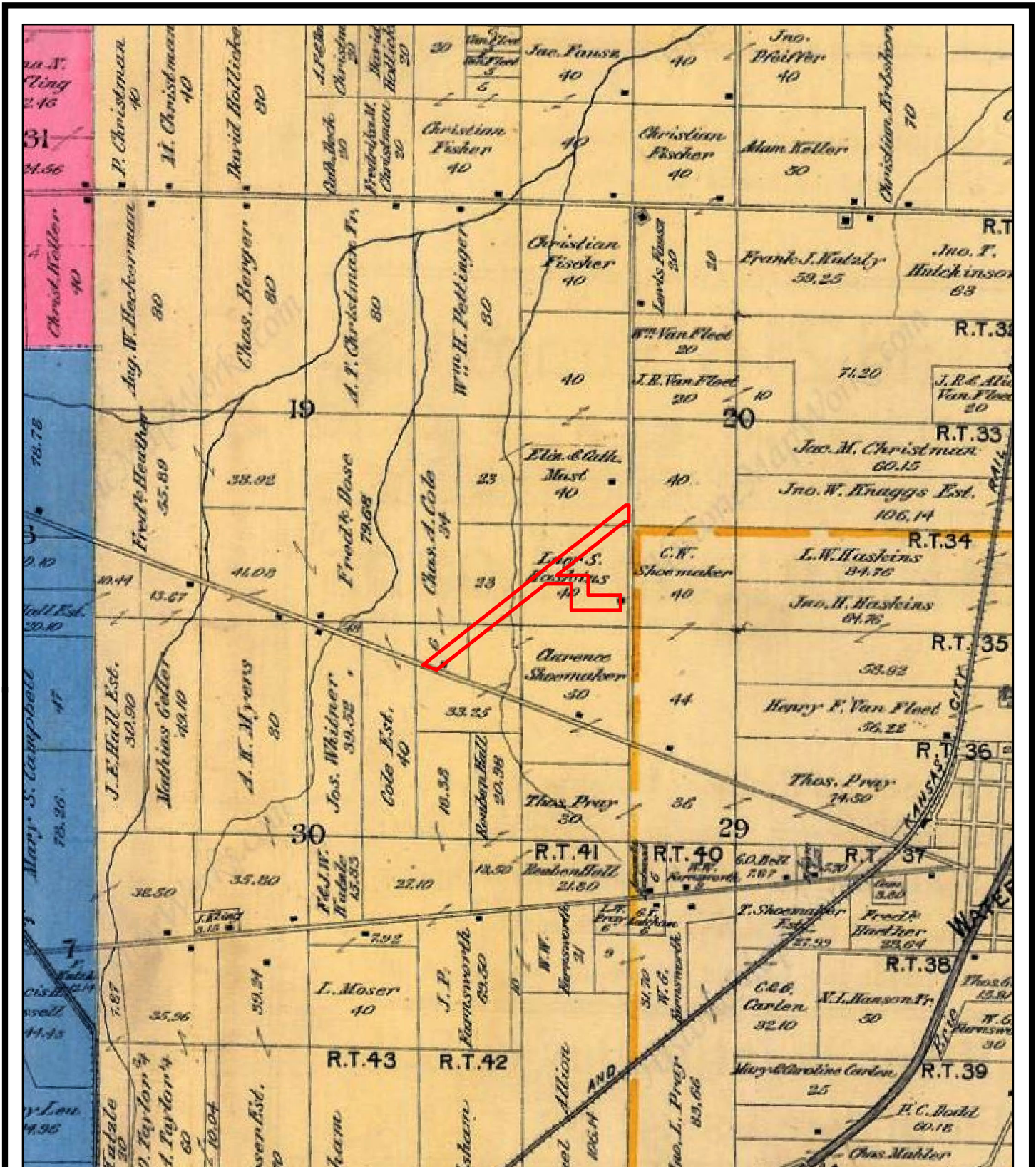
TRC - GIS

PROJECT:
**Levis Park-Midway Switch
Replacement Project**

TITLE:
Study Area circa 1875 (Andreas and Baskin)

| | |
|--------------|----------------------|
| DRAWN BY: | JUSTIN MCKISSICK |
| CHECKED BY: | CURTIS BIONDICH |
| APPROVED BY: | CURTIS BIONDICH |
| DATE: | SEPTEMBER 2024 |
| PROJ. NO.: | 429847.0022.0050 |
| FILE: | LevisPark-Midway.mxd |

Attachment 2 - Image 2



BASEMAP FROM LUCAS COUNTY, OHIO ATLAS

*Image overlay is approximate

N 1" = 1,667' 0 500 1,000
1:20,000 FEET

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

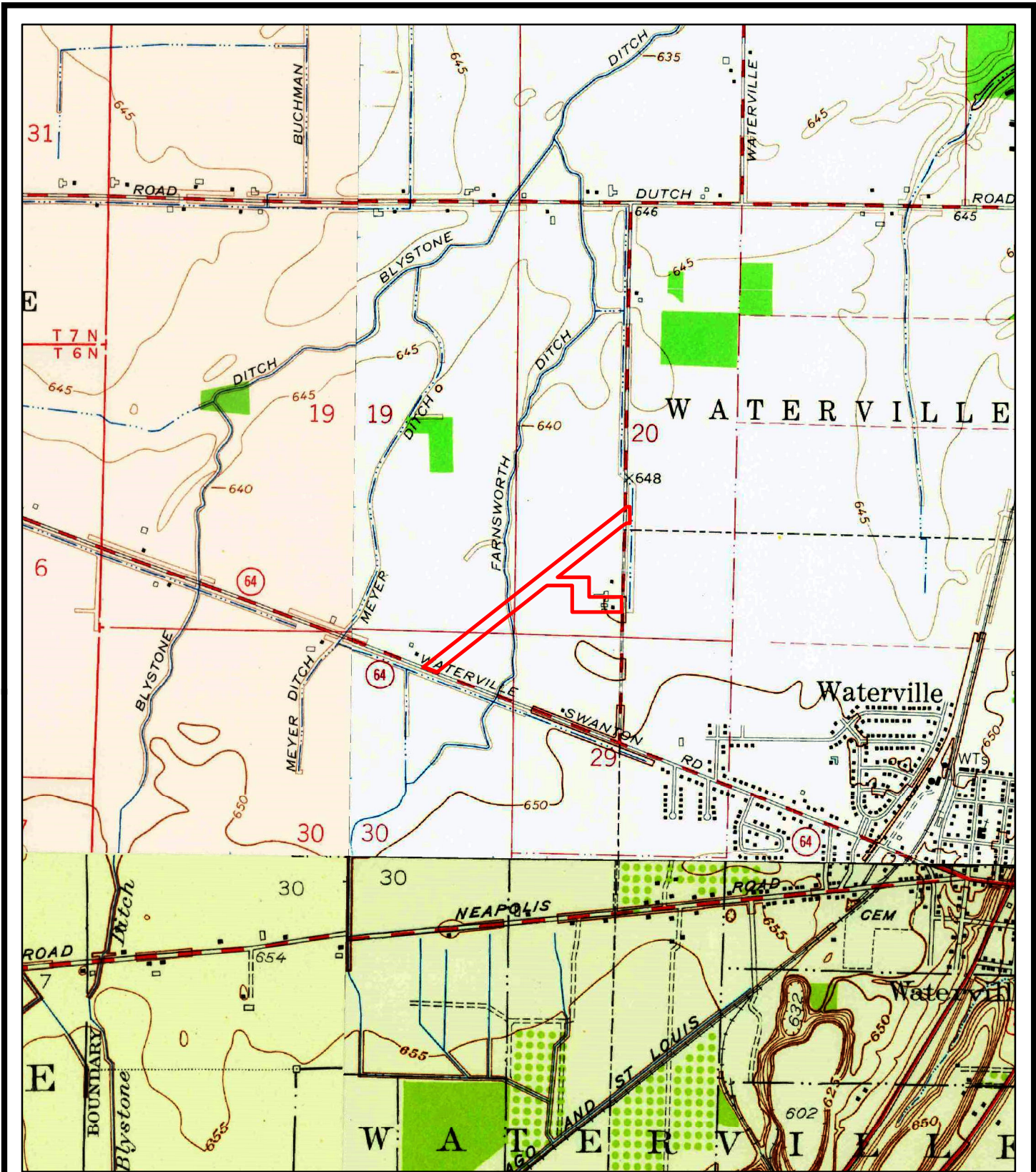
TRC - GIS

PROJECT:
**Levis Park-Midway Switch
Replacement Project**

TITLE:
Study Area circa 1901 (Uhl Bros. Co.)


| | |
|--------------|----------------------|
| DRAWN BY: | JUSTIN MCKISSICK |
| CHECKED BY: | CURTIS BIONDICH |
| APPROVED BY: | CURTIS BIONDICH |
| DATE: | SEPTEMBER 2024 |
| PROJ. NO.: | 429847.0022.0050 |
| FILE: | LevisPark-Midway.mxd |

Attachment 2 - Image 3



BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLES

*Image overlay is approximate

N 1" = 1,667' 0 500 1,000
 1:20,000 FEET

 317 E. Carson Street
 Suite 113
 Pittsburgh, PA 15219
 TRC - GIS

PROJECT:
Levis Park-Midway Switch Replacement Project
 TITLE:
Study Area circa 1952/1964 (USGS)

| | |
|--------------|----------------------|
| DRAWN BY: | JUSTIN MCKISSICK |
| CHECKED BY: | CURTIS BIONDICH |
| APPROVED BY: | CURTIS BIONDICH |
| DATE: | SEPTEMBER 2024 |
| PROJ. NO.: | 429847.0022.0050 |
| FILE: | LevisPark-Midway.mxd |

Attachment 2 - Image 4



Office of Real Estate & Land Management

Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

October 23, 2024

Emma Given
TRC Companies, Inc.
781 Science Boulevard, Suite 200
Gahanna, Ohio 43230

Re: 24-1487_Levis Park-Midway Switch Replacement

Project: The proposed project involves the replacement of an existing switch on the Levis Park-Midway 138kV transmission line.

Location: The proposed project is located in Waterville, Lucas County, 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: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular 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 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 endangered 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 species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends 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 \geq 20 if possible. If trees are present within the project area, 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 CLEARING](#)". 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 (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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 "[RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES](#)." 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.

Federally Endangered

rayed bean (*Villosa fabalis*)

snuffbox (*Epioblasma triquetra*)

State Endangered

eastern pondmussel (*Ligumia nasuta*)

State Threatened

pondhorn (*Uniomerus tetralasmus*)

Due to the location, and that there is no in-water work proposed, this project is not likely to impact these species.

The project is within the range of the of the following listed fish species.

State Endangered

cisco (*Coregonus artedi*)

lake sturgeon (*Acipenser fulvescens*)

western banded killifish (*Fundulus diaphanus menona*)

State Threatened

American eel (*Anguilla rostrata*)

channel darter (*Percina copelandi*)

greater redhorse (*Moxostoma valenciennesi*)

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is 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 Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the blue-spotted salamander (*Ambystoma laterale*), a state endangered species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 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 northern harrier (*Circus hudsonius*), 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.

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 [local floodplain administrator](#) 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 (Environmental Services Administrator) at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Expiration: *ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.*

Stolarski, Adrianna

From: Eileen.Wyza@dnr.ohio.gov
Sent: Thursday, November 14, 2024 8:24 AM
To: Given, Emma
Cc: Stolarski, Adrianna; Molnar, Maggie; Falkinburg, Brad M (Ruszala, Amy M)
Subject: [EXTERNAL] RE: 24-1487_TRC - Levis Park-Midway Switch Replacement - ODNR
Comments: Desktop Hibernacula Assessment

External Sender, use caution with links/attachments. Click 'Report Message' in Outlook if suspicious.

Hello Emma,

Per review of the desktop survey provided for the Levis Park-Midway Switch Replacement Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Therefore, the project is not likely to impact hibernating bats.

Should any reported conditions change before or during construction, please contact me for additional guidance.

Thank you,

Eileen Wyza, Ph.D.
(she/her/hers)
Wildlife Biologist
Ohio Division of Wildlife
Phone: 614-265-6764
Email: Eileen.Wyza@dnr.ohio.gov



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This message is intended solely for the addressee(s). Should you receive this message by mistake, we would be grateful if you informed us that the message has been sent to you in error. In this case, we also ask that you delete this message and any attachments from your mailbox, and do not forward it or any part of it to anyone else. Thank you for your cooperation and understanding.

Please consider the environment before printing this email.

<EGiven@trccompanies.com>

Sent: Tuesday, November 12, 2024 5:23 PM

To: Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>

Cc: Stolarski, Adrianna <astolarski@firstenergycorp.com>; Molnar, Maggie <MMolnar@trccompanies.com>; Falkinburg, Brad <BFalkinburg@trccompanies.com>

Subject: 24-1487_TRC - Levis Park-Midway Switch Replacement - ODNR Comments: Desktop Hibernacula Assessment

Eileen,

From:
Given,
Emma

In response to ODNR's DOW recommendations (attached), TRC completed a desktop habitat assessment to determine if potential hibernaculum is present within FirstEnergy's proposed Levis Park-Midway Switch Replacement Project in the City of Waterville, Lucas County, Ohio.

Please let us know if you have any questions on the provided desktop assessment.

Thank you,

Emma Given, PhD

Ecologist

Planning, Permitting, and Licensing



1382 W 9th St, Suite 400, Cleveland, OH 44113

C 330.446.0265

[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

CAUTION: This is an external email and may not be safe. If the email looks suspicious, please do not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.

November 06, 2024

Ohio Department of Natural Resources
Office of Real Estate & Land Management
2045 Morse Road, Building E-2
Columbus, OH 43229-6693

**Re: Desktop Assessment for potential hibernaculum for the Levis Park-Midway Switch Replacement Project located in the City of Waterville, Lucas County, Ohio.
(TRC Project No. 429847.0022.0050)**

To Whom It May Concern,

In response to the Ohio Department of Natural Resources (ODNR), Division of Wildlife's recommendations, TRC Environmental Corporation (TRC) completed a desktop habitat assessment, on behalf of FirstEnergy Corporation, to determine if potential hibernaculum is present within the proposed Levis Park-Midway Switch Replacement Project (Project) Study Area. The proposed Project is located in the City of Waterville, Lucas County, Ohio (**Appendix A, Figure 1 and Figure 2**). The proposed Project involves the replacement of an existing switch on the Levis Park-Midway 138kV transmission line. The Project Study Area primarily consists of an existing utility right-of-way within agricultural and residential land use, as well as a minor portion of forested habitat, totaling 14.87 acres (**Appendix A, Figure 3**).

During the recommended desktop habitat assessment, secondary source information was utilized to determine if past or present underground resources were present within 0.25-mile of the Project Study Area. The secondary source information utilized included but was not limited to aerial imagery mapping (GoogleEarth, 2024), karst topography mapping (ODNR, 2024a), mine data mapping (ODNR, 2024b), and land cover dataset mapping (USGS, 2021).

No historic surface mine, surface industrial mine, underground industrial mine, surface coal mine, and/or abandoned underground coal mine were identified within 0.25 mile of the Project Study Area (**Appendix A, Figure 4a and 4b**). The nearest historic surface mine is located approximately 1 mile south of the Project Study Area; the nearest surface industrial mine is located approximately 1 mile south of the Project Study Area; the nearest underground industrial mine is located approximately 102 miles east of the Project Study Area; the nearest surface coal mine is located 110 miles southeast of the Project Study Area; and the nearest abandoned underground coal mine is located 43 miles east of the Project Study Area. The Project Study Area is located within a karst region; however, no karst features such as sinkholes, caves, springs, or disappearing streams were observed during field investigation of the Project Study Area.

In addition, a surface water delineation was conducted by TRC on August 13, 2024, at which time winter bat habitat was concurrently assessed. Based on the field investigations, no winter bat habitat, including caves or caverns, were identified within the Project Study Area. During field investigations, photographs of the Project Study Area were taken, which depict the site conditions (**Appendix B**).

Due to the maintained nature of the existing utility right-of-way and that no winter bat habitat, or caves or caverns, were observed within the Project Study Area during field surveys, it is TRC's opinion that federally- or state- listed bats species are not likely to be impacted by this proposed Project. In addition, no tree-clearing is anticipated within the Project Study Area. If minor tree clearing is needed as a result of this Project, it will take place within the USFWS recommended tree clearing dates (October 1-March 31). We kindly request your concurrence that potential bat hibernaculum is not likely present within 0.25-mile of the Project Study Area.

Please do not hesitate to contact me at (330) 446-0265 or via email at EGiven@TRCCompanies.com if you have any questions or require additional information.

Regards,



Emma Given, PhD
Ecologist

Appendices:

Appendix A: Figures

Figure 1: Site Location Map

Figure 2: Aerial Map

Figure 3: National Land Cover Database Map

Figure 4: Mine/Karst Map

Appendix B: Photographic Record

References

Google Earth. (2024). Google Earth Images of Project Area. *Date accessed September, 2024.*

ODNR. (2024a). *Karst Interactive Map, ODNR Division of Geological Survey.* Retrieved from ODNR: https://gis.ohiodnr.gov/website/dgs/karst_interactivemap/

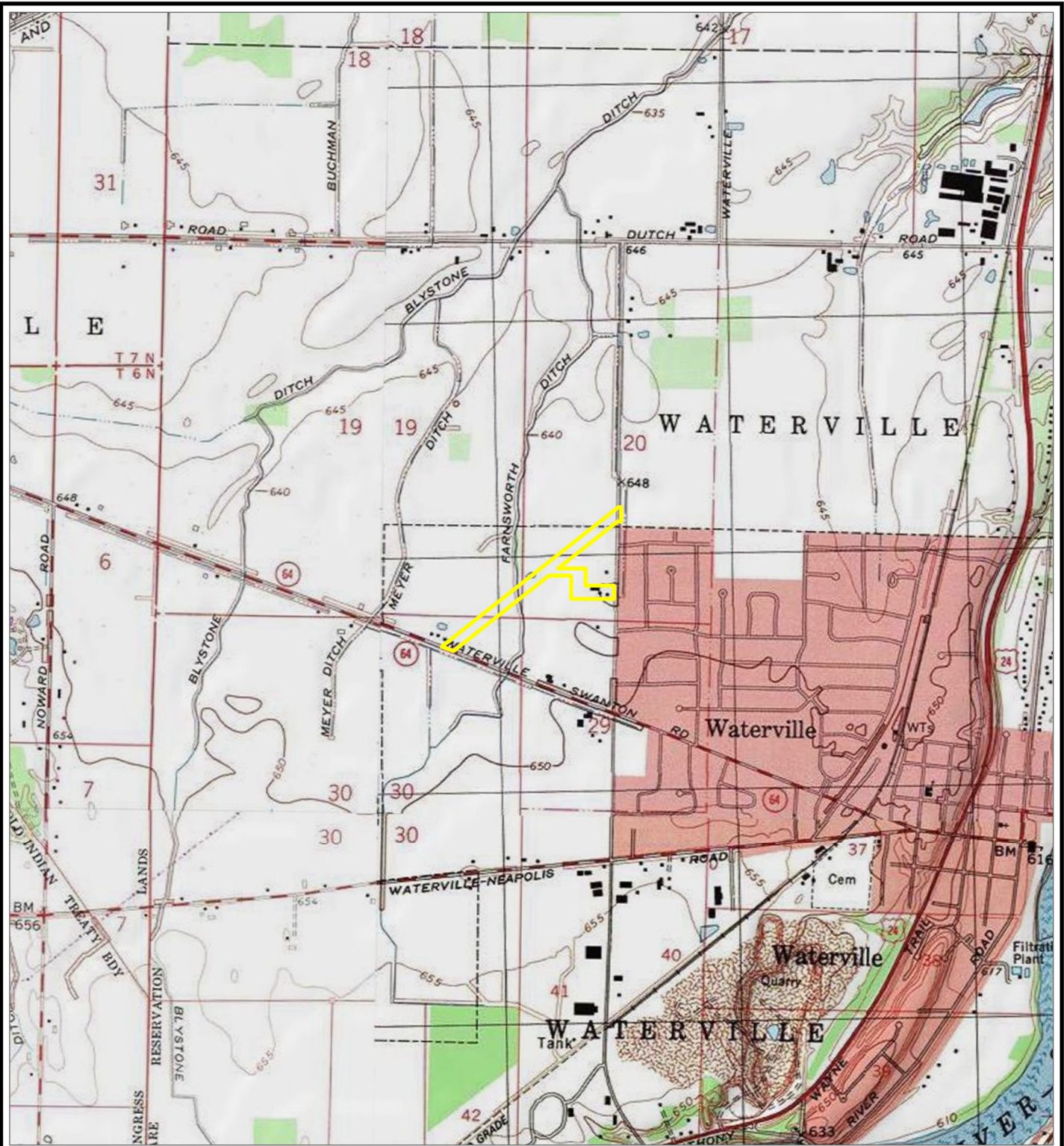
ODNR. (2024b). *Mines of Ohio, ODNR Division of Mineral Resources.* Retrieved from ODNR: <https://gis.ohiodnr.gov/MapView/?config=OhioMines>

USGS. (2021). *National Land Cover Database.* Retrieved from https://www.usgs.gov/centers/eros/science/national-land-cover-database?qt-science_center_objects=0#qt-science_center_objects

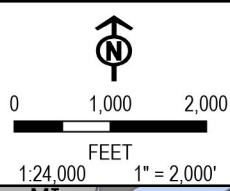
APPENDIX A

Figures

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 PROJECT STUDY AREA



BASE MAP: USA TOPO MAPS MAP SERVICE, MAUMEE QUAD

PROJECT: **FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT**
 LUCAS COUNTY, OH

TITLE: **SITE LOCATION MAP**

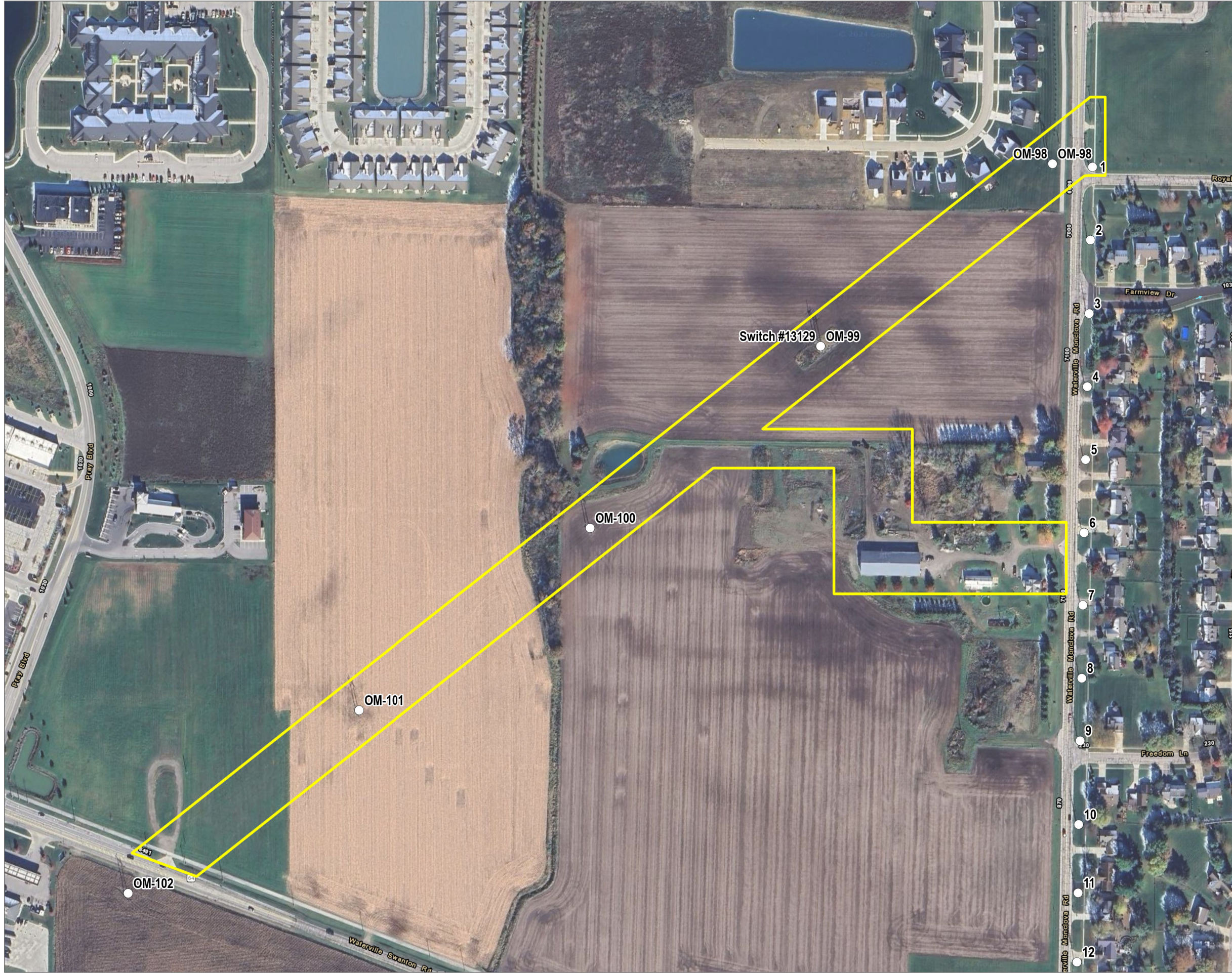
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|----------------------------|-----------------------------|
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 1 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |



1382 WEST NINTH STREET
 SUITE 400
 CLEVELAND, OH 44113
 PHONE: 216-344-3072

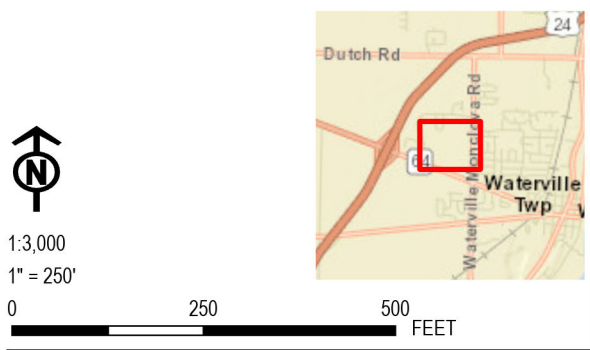
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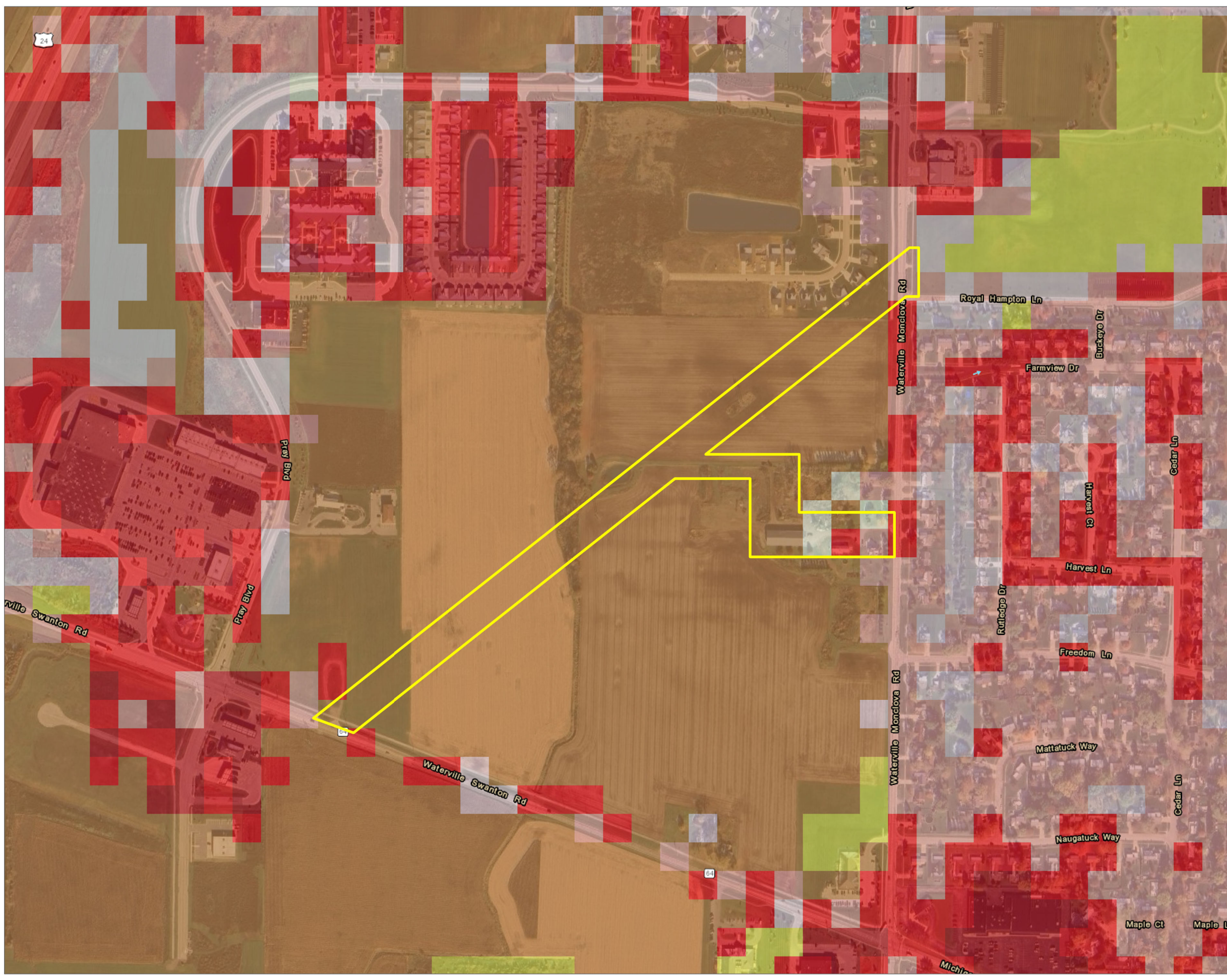
- PROJECT STUDY AREA
- EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.



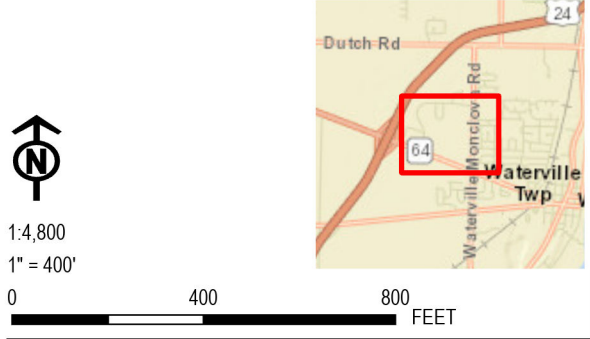
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|---|-----------------------------|
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| TITLE: AERIAL MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 2 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: HibemaculaAssessment.aprx | |

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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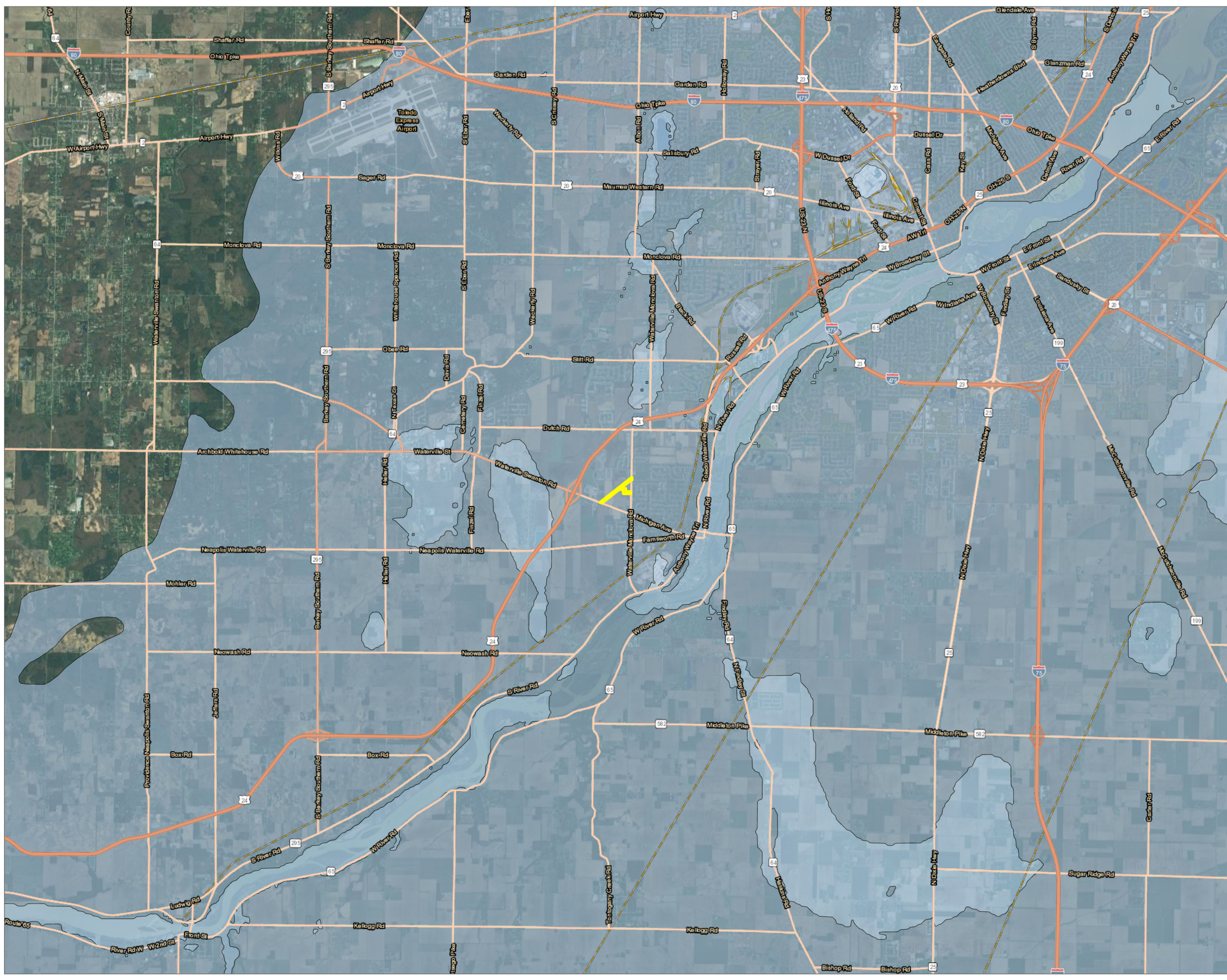
- PROJECT STUDY AREA
- NLCD LAND COVER CLASSIFICATION
- BARREN LAND
- CULTIVATED CROPS
- DEVELOPED, HIGH INTENSITY
- DEVELOPED, LOW INTENSITY
- DEVELOPED, MEDIUM INTENSITY
- DEVELOPED, OPEN SPACE
- HAY/PASTURE
- HERBACEOUS

BASE MAP: GOOGLE MAPS.
 DATA SOURCES: NATIONAL LAND COVER DATABASE (NLCD) 2021 DATA
 ACQUIRED FROM THE USGS.



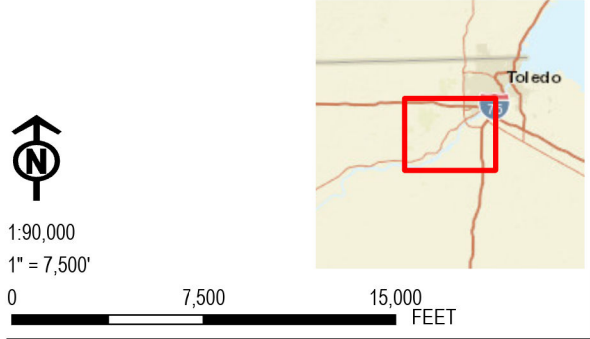
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| LUCAS COUNTY, OH | |
| TITLE: NATIONAL LAND COVER DATABASE MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 3 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | HibemaculaAssessment.aprx |

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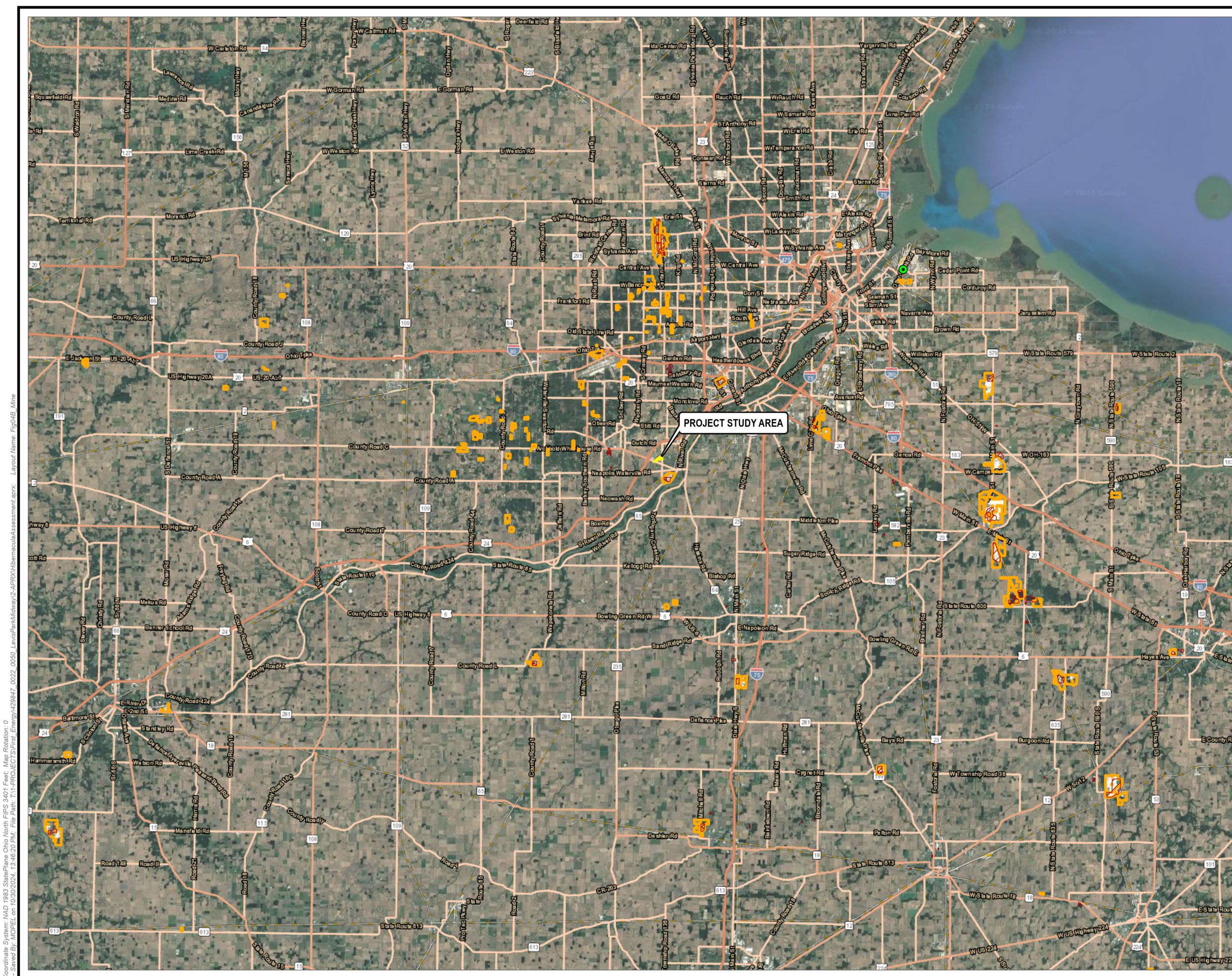


- PROJECT STUDY AREA
- KARST GEOLOGY**
- SILURIAN- AND DEVONIAN-AGE CARBONATE BEDROCK OVERLAIN BY LESS THAN 20 FEET OF GLACIAL DRIFT AND/OR ALLUVIUM
- SILURIAN- AND DEVONIAN-AGE CARBONATE BEDROCK OVERLAIN BY MORE THAN 20 FEET OF GLACIAL DRIFT AND/OR ALLUVIUM

BASE MAP: GOOGLE MAPS.
 DATA SOURCES: KARST DATA ACQUIRED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES-DIVISION OF GEOLOGICAL SURVEY, MAY 2024.



| | |
|---|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: KARST MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 4A |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | HibemaculAssessment.aprx |



- PROJECT STUDY AREA
- ABANDONED MINE OPENING
- ABANDONED MINE - MINE POINT EXTENT UNKNOWN
- SURFACE COAL MINE
- HISTORIC SURFACE MINE
- ABANDONED UNDERGROUND COAL MINE
- SURFACE INDUSTRIAL MINE
- UNDERGROUND INDUSTRIAL MINE

BASE MAP: GOOGLE MAPS.
 DATA SOURCES: MINE DATA ACQUIRED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES-DIVISION OF MINERAL RESOURCES, MAY 2024..



1:360,000
 1" = 30,000'
 0 30,000 60,000 FEET

| | |
|---|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: MINE MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 4B |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: HibemaculaAssessment.aprx | |

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APPENDIX B
Photographic Record

| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 1.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1 facing north.



Photo No. 2.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1 facing east.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 3.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1, facing south.



Photo No. 4.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1, facing west.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 5.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing north in picture foreground. Existing open water, WB-EVN-1 can be seen picture background.



Photo No. 6.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing east as seen on picture right. WB-EVN-1 open water can be seen on picture left.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 7.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing south, as seen on picture right. WB-EVN-1 open water can be seen on picture left.



Photo No. 8.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing west in picture foreground. WB-EVN-1 can be seen picture background.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 9.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing north.



Photo No. 10.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing east.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 11.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing south.



Photo No. 12.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing west.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 13.

Photo Date:
8/13/2024

Description:

Photo of Stream S-EVN-1 looking upstream facing north.



Photo No. 14.

Photo Date:
8/13/2024

Description:

Photo of Stream S-EVN-1 showing the observed substrate.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 15.

Photo Date:
8/13/2024

Description:

 Photo of Stream S-EVN-1 looking downstream facing west.



Photo No. 16.

Photo Date:
8/13/2024

Description:

 Representative photo of the Project Study Area at the existing driveway from Waterville Monclova Rd, facing east.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 17.

Photo Date:
8/13/2024

Description:

 Representative Photo of the Project Study Area of agricultural access facing west.



Photo No. 18.

Photo Date:
8/13/2024

Description:

 Representative Photo of the southern extent of the Project Study Area facing north.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 19.

Photo Date:
8/13/2024

Description:

Representative Photo of the Project Study Area within soybean field, facing north.



Photo No. 20.

Photo Date:
8/13/2024

Description:

Representative Photo of the Project Study Area, within existing corn field, facing south.



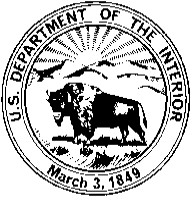
| | | |
|------------------------------------|---|--|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No. 429847.0022.0050 |
|------------------------------------|---|--|

Photo No. 21.
Photo Date:
8/13/2024

Description:
Representative photo of the northern extent of the Project Study Area facing north.



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



October 2, 2024

Project Code: 2024-0147062

Dear Emma Given:

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, endangered, and proposed 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 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.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

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.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-eared bats. If Indiana bats and northern long-eared 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, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

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,

A handwritten signature in blue ink that reads "Erin Knoll". The signature is written in a cursive style.

Erin Knoll
Field Office Supervisor

cc: Matthew.Stooksbury@dnr.ohio.gov
Eileen.Wyza@dnr.ohio.gov



1382 West Ninth St.
Suite 400
Cleveland, OH 44113

T 216.344.3072
TRCcompanies.com

October 25, 2024

Ms. Adrianna Stolarski
FirstEnergy Corporation
5001 Nasa Boulevard
Fairmount, WV 26554

Reference: Technical Memorandum for the Surface Water Delineation of the Levis Park-Midway Switch Replacement Project located in the city of Waterville, Lucas County, Ohio.
(TRC Project No. 429847.0022.0050)

Dear Ms. Stolarski:

On behalf of FirstEnergy Corporation, TRC Environmental Corporation (TRC) conducted a surface water delineation for the Levis Park-Midway Switch Replacement Project (Project). The Project is located in the city of Waterville, Lucas County, Ohio and is 14.9 acres in size (**Attachment A, Figures 1 and 2**). The Project Study Area is located at the following centroid location: 41.508958, -83.741926. The proposed Project involves the replacement of a switch(es) on the Levis Park – Midway 138kV transmission line.

The delineation was conducted by qualified wetland scientists on August 13, 2024, in accordance with the United States Army Corps of Engineers (USACE) parameters. The objective was to evaluate and delineate potential surface water resources within the Project Study Area, such that the resources could be considered during each phase of the Project. Prior to the site visit, TRC reviewed available secondary source information such as the National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), United States Geological Survey (USGS) topographic maps, County Soil Survey maps, and aerial imagery of the Project Study Area to use in addition to field investigations.

The Project Study Area is shown on the attached map (**Attachment A, Figure 1**), which was derived from the USGS Maumee, Ohio 7.5-minute quadrangle topographic maps. Soil mapped within the Project Study Area includes hydric soils and non-hydric soils (**Attachment A, Figure 3**). The proposed Project Study Area includes two (2) mapped NWI features, one (1) riverine and one (1) freshwater pond; and one (1) mapped NHD feature (Farnsworth Ditch) (**Attachment A, Figure 4**). According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panel 39095C0240E (eff. 8/16/2011), the proposed Project is not located within a FEMA-mapped 100-Year Flood Zone.

During the field investigation, land use within the Project Study Area was observed to be existing, maintained utility right-of-way within agricultural and residential land use, with a minor component of upland forest habitat. See the attached mapping in **Attachment A** and the Photographic Record in **Attachment B** for further details of the Project Study Area.

During the field investigation, three (3) wetlands (W-EVN-1, W-EVN-2, and W-EVN-3) and one (1) stream (S-EVN-01 [Farnsworth Ditch]) were identified and delineated within the Project Study Area. In addition, one (1) waterbody (pond), WB-EVN-1, abutting Wetland W-EVN-2, was identified in the Project Study Area. See **Table 1** and **Table 2** on the next page for a summary of the observed resources. The delineated wetland boundaries and sample points are shown on **Figure 5** in **Attachment A**. Wetland data was collected and recorded on the USACE Wetland Determination Data Forms – Northcentral and Northeast Region. A wetland functional assessment was completed using the Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method data form for each of the three (3) delineated wetlands. Stream data was collected and recorded on the OEPA Headwater Habitat Evaluation Index (HHEI) data form for the one (1) delineated stream, which has a drainage area less than one (1) square mile and a maximum pool depth of less than 40 centimeters. All wetland and stream data forms are

provided in **Attachment C**.

Table 1. Delineated Wetlands Summary Table

| Wetland ID | Cowardin Classification ¹ | Connection ² | ORAM Score and Category | Delineated Area within the Project Study Area (acres) |
|------------|--------------------------------------|-------------------------|-------------------------|---|
| W-EVN-1 | PEM | Adjacent | 8 (Cat. 1) | 0.005 |
| W-EVN-2 | PEM | Adjacent | 25 (Cat. 1) | 0.030 |
| W-EVN-3 | PEM | Adjacent | 21 (Cat. 1) | 0.037 |

Note: See Delineated Resources Map and Photographic Record for more details.

¹ Cowardin Wetland Classification (based upon field identification and delineation) (Cowardin, et al., 1979): PEM – Palustrine Emergent

² Wetland connection is pending an update from OEPA and USACE based on the USA vs. Sackett case.

Table 2. Delineated Stream and Waterbody Summary Table

| Stream ID | Resource Name | Flow Regime | HHEI | Existing Use Designation ¹ | Delineated Length (linear feet) and/or Area (acreage) within the Project Study Area |
|-----------|------------------|--------------|------|---------------------------------------|---|
| S-EVN-1 | Farnsworth Ditch | Intermittent | 24 | Modified Class I PHW | 164 LF (0.011 AC) |
| WB-EVN-1 | - | - | - | - | 0.033 AC |

Note: See Delineated Resources Map and Photographic Record for more details.

¹PHW= Primary Headwater

It is TRC’s understanding that this Project would fall under Nationwide Permit (NWP) 57 - Electric Utility Line and Telecommunications Activities, should the proposed Project result in regulated activities within jurisdictional resources. The Project is located within an “Eligible” area according to OEPA’s Stream Eligibility for the Nationwide Permit Program (**Appendix A, Figure 6**); however, OEPA’s 401 Water Quality Certification for NWP 57 is currently waived. No additional screening procedures are required for the Project regarding compliance with OEPA’s 401 Water Quality Certification.

This Technical Memorandum represents the conditions within the Project Study Area identified herein, as of the inspection dates. Should you require any additional information or have any questions concerning this letter, please feel free to contact me at (440) 666-2890 or by email at BFalkinburg@TRCCompanies.com.

Kind Regards,

TRC



Brad M. Falkinburg, PWS
 Ecological Office Practice Leader
 cc: Maggie Molnar, PWS – TRC

Levis Park-Midway Switch Replacement Project
Surface Water Delineation – Technical Memorandum

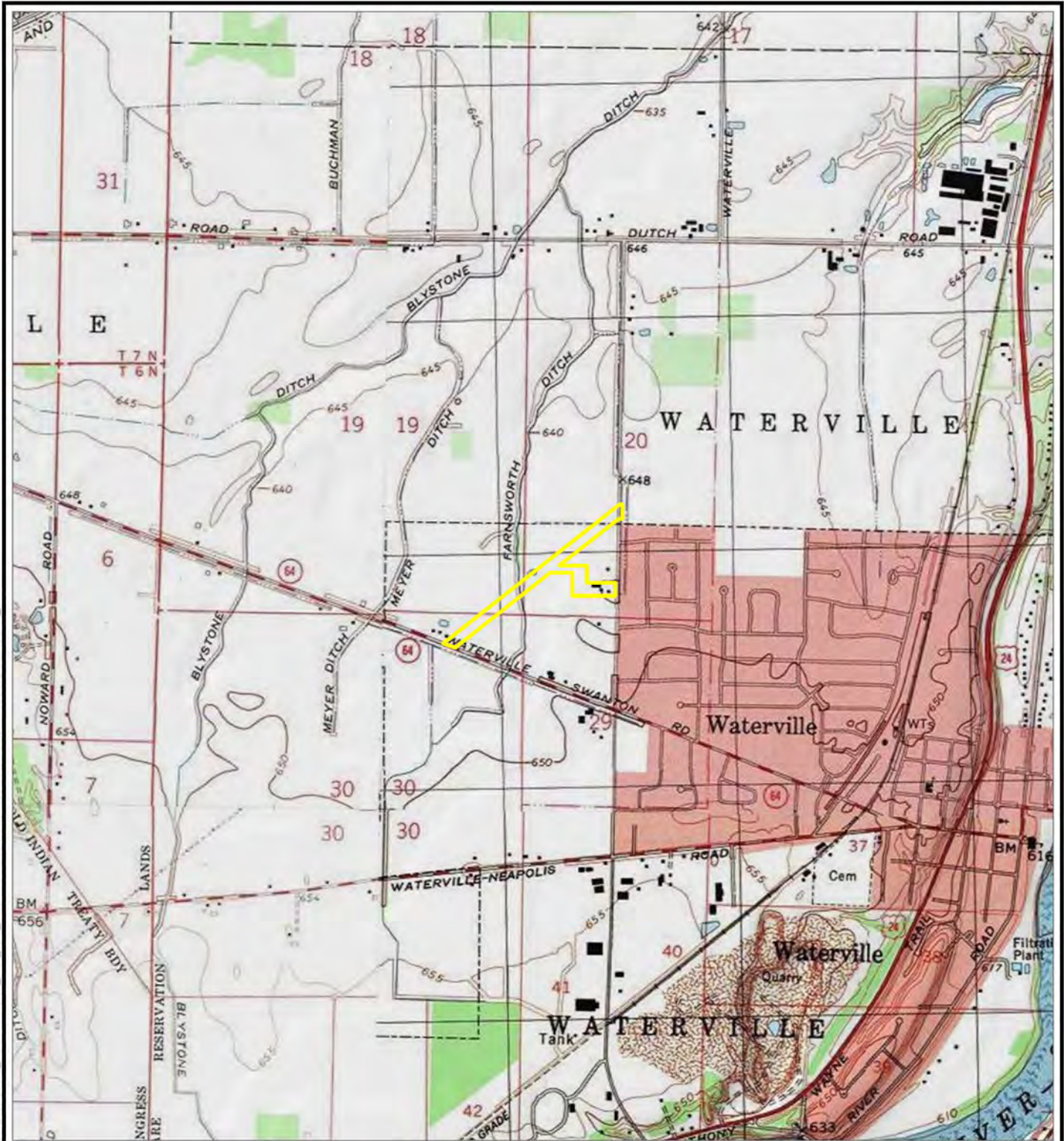
Attachments

Attachment A: Figures

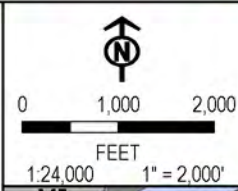
Attachment B: Photographic Record

Attachment C: Data Sheets

ATTACHMENT A – Figures



 PROJECT STUDY AREA



BASE MAP: USA TOPO MAPS MAP SERVICE, MAUMEE QUAD

PROJECT: **FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT**
LUCAS COUNTY, OH

TITLE: **SITE LOCATION MAP**

| | |
|----------------------------|-----------------------------|
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 1 |
| APPROVED BY: B. FALKENBURG | |
| DATE: SEPTEMBER 2024 | |



1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR

COORDINATE SYSTEM: NAD 1983 STATEPLANE OHIO NORTH FIPS 3401 FEET, MAP ROTATION: 0
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Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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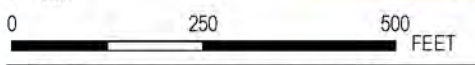


- PROJECT STUDY AREA
- EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.

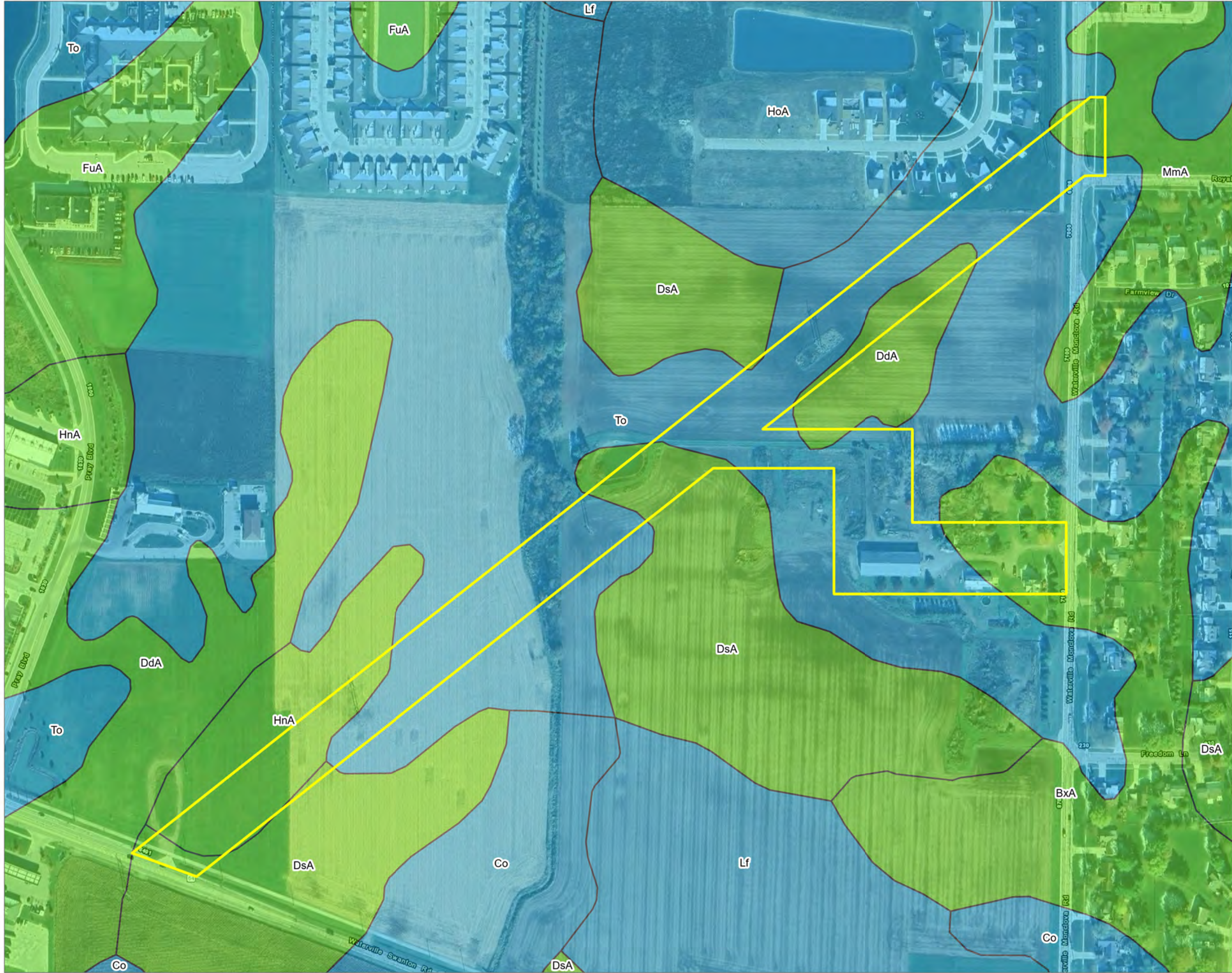


1:3,000
1" = 250'



| | |
|---|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: AERIAL MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847 0022 0050 |
| CHECKED BY: M. MOLNAR | FIGURE 2 |
| APPROVED BY: B. FALKINBURG | |
| DATE: SEPTEMBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | WDR.aprx |

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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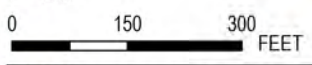


- PROJECT STUDY AREA
- HYDRIC SOIL
- NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
- NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
 DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.

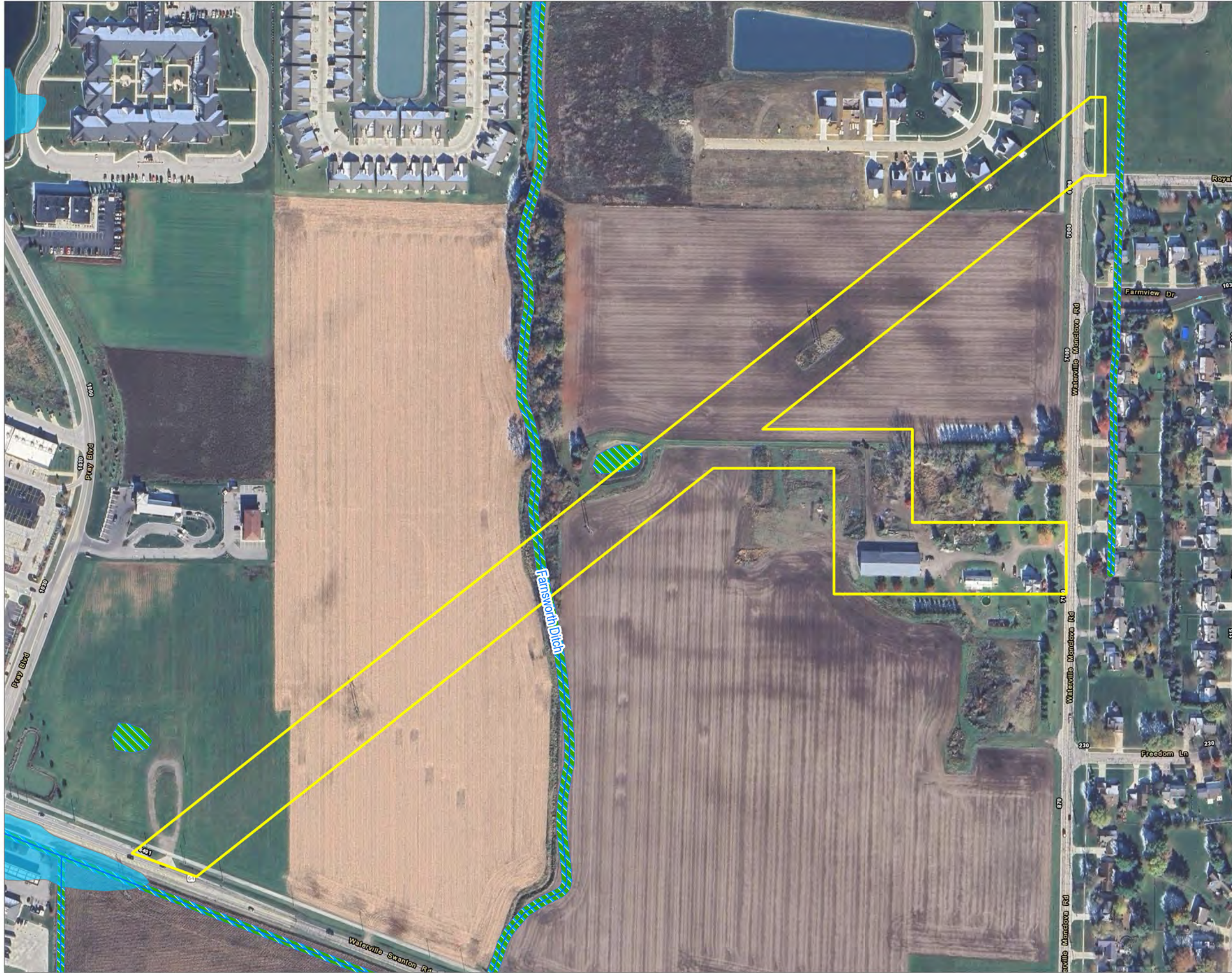


1:3,000
 1" = 250'



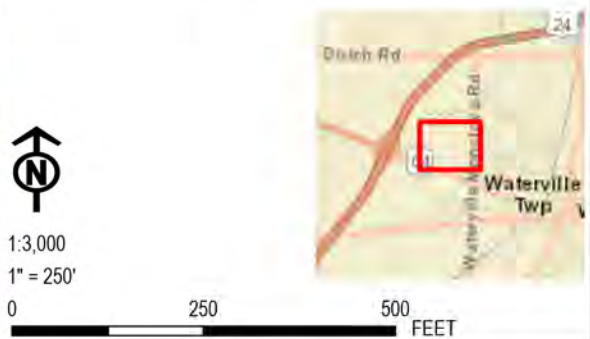
| | |
|---|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: SOILS MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 3 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | WDR.aprx |

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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- PROJECT STUDY AREA
- NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
- NATIONAL WETLANDS INVENTORY (NWI) FEATURE
- 100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS
 DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI); STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD); FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).



| | |
|---|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 4 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | WDR.aprx |

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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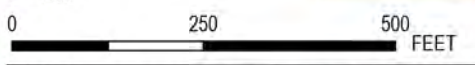


- PROJECT STUDY AREA
- EXISTING STRUCTURE
- INTERMITTENT STREAM
- POND
- PEM WETLAND
- WETLAND CONTINUES
- WETLAND DATA POINT
- UPLAND DATA POINT

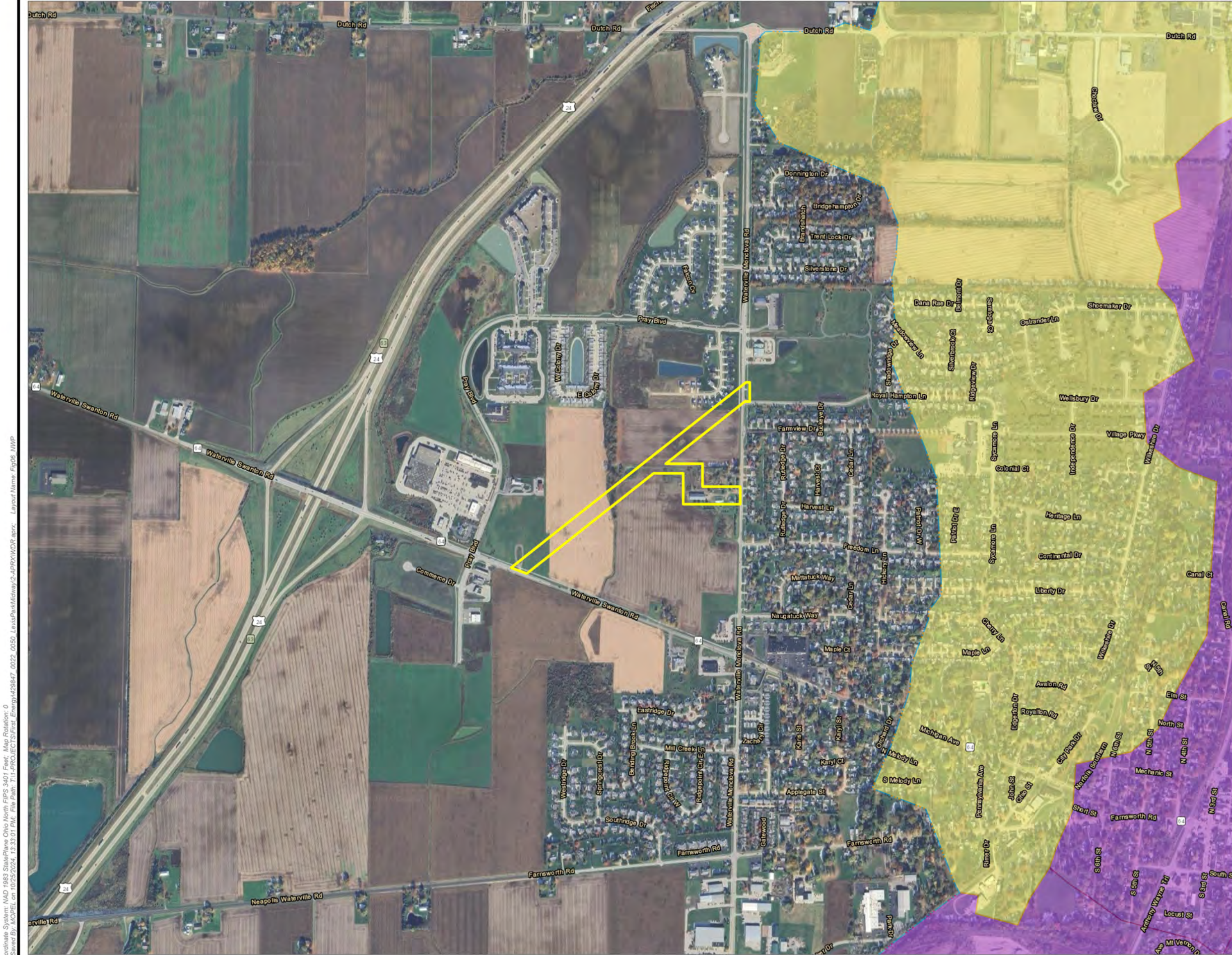
BASE MAP: GOOGLE MAPS
 DATA SOURCES: TRC WETLAND DELINEATION COMPLETED AUGUST 13, 2024.



1:3,000
 1" = 250'



| | |
|---|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT LUCAS COUNTY, OH | |
| TITLE: DELINEATED RESOURCES MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 5 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | WDR.aprx |



- PROJECT STUDY AREA
- OHIO EPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY
- INELIGIBLE
- POSSIBLY ELIGIBLE
- ELIGIBLE

BASE MAP: GOOGLE MAPS.
 DATA SOURCES: NATIONWIDE PERMITS STREAM DATA ACQUIRED FROM THE OHIO EPA.



1:12,000
 1" = 1,000'
 0 1,000 2,000 FEET

| | |
|--|-----------------------------|
| PROJECT: FIRSTENERGY - LEVIS PARK-MIDWAY SWITCH REPLACEMENT PROJECT | |
| LUCAS COUNTY, OH | |
| TITLE: NATIONWIDE PERMITS STREAM ELIGIBILITY MAP | |
| DRAWN BY: M. OPEL | PROJ. NO.: 429847.0022.0050 |
| CHECKED BY: M. MOLNAR | FIGURE 6 |
| APPROVED BY: B. FALKINBURG | |
| DATE: OCTOBER 2024 | |
| 1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072 | |
| FILE: | WDR.aprx |

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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ATTACHMENT B – Photographic Record

| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 1.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1 facing north.



Photo No. 2.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1 facing east.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 3.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1, facing south.



Photo No. 4.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-1, facing west.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 5.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing north in picture foreground. Existing open water, WB-EVN-1 can be seen picture background.



Photo No. 6.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing east as seen on picture right. WB-EVN-1 open water can be seen on picture left.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 7.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing south, as seen on picture right. WB-EVN-1 open water can be seen on picture left.



Photo No. 8.

Photo Date:
8/13/2024

Description:

Photo of Wetland W-EVN-2, facing west in picture foreground. WB-EVN-1 can be seen picture background.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 9.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing north.



Photo No. 10.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing east.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 11.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing south.



Photo No. 12.

Photo Date:
8/13/2024

Description:
Photo of Wetland W-EVN-3, facing west.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 13.

Photo Date:
8/13/2024

Description:

Photo of Stream S-EVN-1 looking upstream facing north.



Photo No. 14.

Photo Date:
8/13/2024

Description:

Photo of Stream S-EVN-1 showing the observed substrate.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 15.

Photo Date:
8/13/2024

Description:

Photo of Stream S-EVN-1 looking downstream facing west.



Photo No. 16.

Photo Date:
8/13/2024

Description:

Representative photo of the Project Study Area at the existing driveway from Waterville Monclova Rd, facing east.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 17.

Photo Date:
8/13/2024

Description:
Representative Photo of the Project Study Area of agricultural access facing west.



Photo No. 18.

Photo Date:
8/13/2024

Description:
Representative Photo of the southern extent of the Project Study Area facing north.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 19.

Photo Date:
8/13/2024

Description:

 Representative Photo of the Project Study Area within soybean field, facing north.



Photo No. 20.

Photo Date:
8/13/2024

Description:

 Representative Photo of the Project Study Area, within existing corn field, facing south.



| | | |
|------------------------------------|---|---|
| Client Name: FirstEnergy | Site Location: City of Waterville, Lucas County, Ohio | Project No.: 429847.0022.0050 |
|------------------------------------|---|---|

Photo No. 21.

Photo Date:
8/13/2024

Description:

Representative photo of the northern extent of the Project Study Area facing north.



ATTACHMENT C – Data Sheets

USACE Wetland Determination Data Forms – Northcentral Northeast Region

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Levis Park-Midway Switch City/County: Waterville, Lucas County Sampling Date: 2024-8-13
 Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-01_PEM-1
 Investigator(s): Erin Van Nort, Lily Sobey Section, Township, Range: NA
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): None Slope (%): 0 to 1
 Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5090219444 Long: -83.7394645718 Datum: WGS84
 Soil Map Unit Name: Toledo silty clay, 0 to 1 percent slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-EVN-01</u> |
| Remarks: (Explain alternative procedures here or in a separate report.) Coverture is PEM. Based on the presence of all three parameters, this area is a wetland. | |

HYDROLOGY

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|---|---|--|---|--|--|--|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| <p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Sediment Deposits (B2)</td> <td><input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table> | <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input checked="" type="checkbox"/> Sediment Deposits (B2) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | <p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> Surface Soil Cracks (B6)</td> </tr> <tr> <td><input type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Moss Trim Lines (B16)</td> </tr> <tr> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input type="checkbox"/> Microtopographic Relief (D4)</td> </tr> <tr> <td><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> </table> | <input checked="" type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | <input type="checkbox"/> Moss Trim Lines (B16) | <input type="checkbox"/> Dry-Season Water Table (C2) | <input type="checkbox"/> Crayfish Burrows (C8) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | <input type="checkbox"/> Stunted or Stressed Plants (D1) | <input checked="" type="checkbox"/> Geomorphic Position (D2) | <input type="checkbox"/> Shallow Aquitard (D3) | <input type="checkbox"/> Microtopographic Relief (D4) | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drainage Patterns (B10) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Moss Trim Lines (B16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Dry-Season Water Table (C2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Crayfish Burrows (C8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Geomorphic Position (D2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Shallow Aquitard (D3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Microtopographic Relief (D4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Field Observations:</p> <table style="width:100%;"> <tr> <td>Surface Water Present?</td> <td>Yes <input type="checkbox"/></td> <td>No <input checked="" type="checkbox"/></td> <td>Depth (inches): <input type="text"/></td> </tr> <tr> <td>Water Table Present?</td> <td>Yes <input type="checkbox"/></td> <td>No <input checked="" type="checkbox"/></td> <td>Depth (inches): <input type="text"/></td> </tr> <tr> <td>Saturation Present? (includes capillary fringe)</td> <td>Yes <input type="checkbox"/></td> <td>No <input checked="" type="checkbox"/></td> <td>Depth (inches): <input type="text"/></td> </tr> </table> | Surface Water Present? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Depth (inches): <input type="text"/> | Water Table Present? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Depth (inches): <input type="text"/> | Saturation Present? (includes capillary fringe) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Depth (inches): <input type="text"/> | <p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> | | | | | | | | | | | | | | | | | | | |
| Surface Water Present? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Depth (inches): <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Table Present? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Depth (inches): <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Saturation Present? (includes capillary fringe) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Depth (inches): <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: The criterion for wetland hydrology is met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VEGETATION – Use scientific names of plants.

Sampling Point: W-EVN-01_PEM-1

| | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------|-------------------------------------|---------------------|------|--|-------------------|-------------------------------------|--------------|--|-------------|----|-------|----|--|--------------|----|-------|----|--|-------------|----|-------|----|--|--------------|---|-------|---|--|-------------|---|-------|---|--|----------------|---------|--|---------|--|
| Tree Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | 70 | Yes | | OBL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | 15 | No | | FACW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | 10 | No | | FAC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | 5 | No | | FAC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 100 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align:center;">Total % Cover of:</th> <th style="width:10%;"></th> <th style="width:10%; text-align:center;">Multiply by:</th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align:center;">70</td> <td>x 1 =</td> <td style="text-align:center;">70</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;">15</td> <td>x 2 =</td> <td style="text-align:center;">30</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;">15</td> <td>x 3 =</td> <td style="text-align:center;">45</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;">0</td> <td>x 4 =</td> <td style="text-align:center;">0</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;">0</td> <td>x 5 =</td> <td style="text-align:center;">0</td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;">100 (A)</td> <td></td> <td style="text-align:center;">145 (B)</td> <td></td> </tr> </tbody> </table> <p style="text-align:right; margin-top: 5px;">Prevalence Index = B/A = <u>1.5</u></p> | | | | | | Total % Cover of: | | Multiply by: | | OBL species | 70 | x 1 = | 70 | | FACW species | 15 | x 2 = | 30 | | FAC species | 15 | x 3 = | 45 | | FACU species | 0 | x 4 = | 0 | | UPL species | 0 | x 5 = | 0 | | Column Totals: | 100 (A) | | 145 (B) | |
| | Total % Cover of: | | Multiply by: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBL species | 70 | x 1 = | 70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACW species | 15 | x 2 = | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAC species | 15 | x 3 = | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACU species | 0 | x 4 = | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UPL species | 0 | x 5 = | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Column Totals: | 100 (A) | | 145 (B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants 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 vines – All woody vines greater than 3.28 ft in height. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Hydrophytic Vegetation Present?</td> <td style="width:10%; text-align:center;">Yes</td> <td style="width:10%; text-align:center;"><input checked="" type="checkbox"/></td> <td style="width:10%; text-align:center;">No</td> <td style="width:10%;"></td> </tr> </table> | | | | | Hydrophytic Vegetation Present? | Yes | <input checked="" type="checkbox"/> | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydrophytic Vegetation Present? | Yes | <input checked="" type="checkbox"/> | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|----|----------------|----|-------------------|------------------|-----------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0 to 4 | 10YR 3/1 | 95 | 10YR 3/6 | 5 | C | PL | Silty Clay Loam | |
| 4 to 20 | 10YR 5/1 | 85 | 10YR 5/6 | 15 | D | PL | Silty Clay Loam | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR R, MLRA 149B)**

- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- Coast Prairie Redox (A16) **(LRR K, L, R)**
- 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- Dark Surface (S7) **(LRR K, L)**
- Polyvalue Below Surface (S8) **(LRR K, L)**
- Thin Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Levis Park-Midway Switch City/County: Waterville, Lucas County Sampling Date: 2024-8-13
 Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-01_UPL-1
 Investigator(s): Erin Van Nort, Lily Sobey Section, Township, Range: NA
 Landform (hillslope, terrace, etc): Low Hill Local relief (concave, convex, none): None Slope (%): 0 to 1
 Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5089763049 Long: -83.739616368 Datum: WGS84
 Soil Map Unit Name: Toledo silty clay, 0 to 1 percent slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>W-EVN-01</u> |
| Remarks: (Explain alternative procedures here or in a separate report.) Coverture is UPL. Based on the absence of all three parameters, this area is an upland. | |

HYDROLOGY

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|---|---|---|--|--|--|--|---|---|---|--|---|--|--|---|---|--|--|--|--|--|--|---|--|---|--|
| <p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%; border: none;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table> | <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | <p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table> | <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | <input type="checkbox"/> Moss Trim Lines (B16) | <input type="checkbox"/> Dry-Season Water Table (C2) | <input type="checkbox"/> Crayfish Burrows (C8) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | <input type="checkbox"/> Stunted or Stressed Plants (D1) | <input type="checkbox"/> Geomorphic Position (D2) | <input type="checkbox"/> Shallow Aquitard (D3) | <input type="checkbox"/> Microtopographic Relief (D4) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Surface Soil Cracks (B6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drainage Patterns (B10) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Moss Trim Lines (B16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Dry-Season Water Table (C2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Crayfish Burrows (C8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Geomorphic Position (D2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Shallow Aquitard (D3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Microtopographic Relief (D4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> FAC-Neutral Test (D5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Field Observations:</p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | <p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: The criterion for wetland hydrology is not met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VEGETATION – Use scientific names of plants.

Sampling Point: W-EVN-01_UPL-1

| | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------|----------------------|---------------------|--|--|-------------------|--|--------------|-------------|----------|-------|----------|--------------|----------|-------|----------|-------------|----------|-------|----------|--------------|-----------|-------|------------|-------------|----------|-------|-----------|----------------|---------------|--|----------------|
| Tree Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>0</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>0</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>60</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>0</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="float: right; width: 40%;"> <p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p>Prevalence Index worksheet:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:20%; text-align:center;">Total % Cover of:</th> <th style="width:20%;"></th> <th style="width:20%; text-align:center;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;"><u>55</u></td> <td>x 4 =</td> <td style="text-align:center;"><u>220</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;"><u>5</u></td> <td>x 5 =</td> <td style="text-align:center;"><u>25</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;"><u>60</u> (A)</td> <td></td> <td style="text-align:center;"><u>245</u> (B)</td> </tr> </tbody> </table> <p style="text-align: center;">Prevalence Index = B/A = <u>4.1</u></p> <hr/> <p>Hydrophytic Vegetation Indicators:</p> <p><u> </u> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><u> </u> 2 - Dominance Test is >50%</p> <p><u> </u> 3 - Prevalence Index is ≤3.0¹</p> <p><u> </u> 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><u> </u> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p>Definitions of Vegetation Strata:</p> <p>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines – All woody vines greater than 3.28 ft in height.</p> <hr/> <p>Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u></p> </div> | | | | | | Total % Cover of: | | Multiply by: | OBL species | <u>0</u> | x 1 = | <u>0</u> | FACW species | <u>0</u> | x 2 = | <u>0</u> | FAC species | <u>0</u> | x 3 = | <u>0</u> | FACU species | <u>55</u> | x 4 = | <u>220</u> | UPL species | <u>5</u> | x 5 = | <u>25</u> | Column Totals: | <u>60</u> (A) | | <u>245</u> (B) |
| | Total % Cover of: | | Multiply by: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBL species | <u>0</u> | x 1 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACW species | <u>0</u> | x 2 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAC species | <u>0</u> | x 3 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACU species | <u>55</u> | x 4 = | <u>220</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UPL species | <u>5</u> | x 5 = | <u>25</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Column Totals: | <u>60</u> (A) | | <u>245</u> (B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Remarks: (Include photo numbers here or on a separate sheet.)</p> <p>The criterion for hydrophytic vegetation is not met.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Levis Park-Midway Switch City/County: Waterville, Lucas County Sampling Date: 2024-8-13
 Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-02_PEM-1
 Investigator(s): Erin Van Nort, Lily Sobey Section, Township, Range: NA
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): None Slope (%): 0 to 1
 Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5093458293 Long: -83.7420896537 Datum: WGS84
 Soil Map Unit Name: Dixboro fine sandy loam, 0 to 2 percent slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-EVN-02</u> |
| Remarks: (Explain alternative procedures here or in a separate report.) Coverture is PEM. Based on the presence of all three parameters, this area is a wetland. | |

HYDROLOGY

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---|---|---|--|---|---|---|--|--|--|--|---|---|--|---|---|--|--|---|---|--|--|--|--|--|--|--|--|---|---|
| <p>Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input checked="" type="checkbox"/> High Water Table (A2)</td> <td><input checked="" type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input checked="" type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table> | <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input checked="" type="checkbox"/> High Water Table (A2) | <input checked="" type="checkbox"/> Aquatic Fauna (B13) | <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Iron Deposits (B5) | <input checked="" type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | <p>Secondary Indicators (minimum of two required)</p> <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table> | <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | <input type="checkbox"/> Moss Trim Lines (B16) | <input type="checkbox"/> Dry-Season Water Table (C2) | <input type="checkbox"/> Crayfish Burrows (C8) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | <input type="checkbox"/> Stunted or Stressed Plants (D1) | <input checked="" type="checkbox"/> Geomorphic Position (D2) | <input type="checkbox"/> Shallow Aquitard (D3) | <input type="checkbox"/> Microtopographic Relief (D4) | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input checked="" type="checkbox"/> Aquatic Fauna (B13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Iron Deposits (B5) | <input checked="" type="checkbox"/> Thin Muck Surface (C7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Surface Soil Cracks (B6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drainage Patterns (B10) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Moss Trim Lines (B16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Dry-Season Water Table (C2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Crayfish Burrows (C8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Geomorphic Position (D2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Shallow Aquitard (D3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Microtopographic Relief (D4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Field Observations:</p> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe) | <p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: The criterion for wetland hydrology is met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VEGETATION – Use scientific names of plants.

Sampling Point: W-EVN-02_PEM-1

| | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------|----------------------|---------------------|--|--|-------------------|--|--------------|--|-------------|-----------|-------|-----------|--|--------------|-----------|-------|-----------|--|-------------|----------|-------|-----------|--|--------------|----------|-------|----------|--|-------------|----------|-------|----------|--|----------------|---------------|--|---------------|--|
| Tree Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 55 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="float: right; width: 40%;"> <p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p>Prevalence Index worksheet:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align:center;">Total % Cover of:</th> <th style="width:10%;"></th> <th style="width:10%; text-align:center;">Multiply by:</th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align:center;"><u>30</u></td> <td>x 1 =</td> <td style="text-align:center;"><u>30</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;"><u>20</u></td> <td>x 2 =</td> <td style="text-align:center;"><u>40</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;"><u>5</u></td> <td>x 3 =</td> <td style="text-align:center;"><u>15</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align:center;"><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align:center;"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;"><u>55</u> (A)</td> <td></td> <td style="text-align:center;"><u>85</u> (B)</td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">Prevalence Index = B/A = <u>1.5</u></p> <hr/> <p>Hydrophytic Vegetation Indicators:</p> <p><input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input checked="" type="checkbox"/> 2 - Dominance Test is >50%</p> <p><input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0¹</p> <p><u> </u> 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><u> </u> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p>Definitions of Vegetation Strata:</p> <p>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines – All woody vines greater than 3.28 ft in height.</p> <hr/> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> </div> | | | | | | Total % Cover of: | | Multiply by: | | OBL species | <u>30</u> | x 1 = | <u>30</u> | | FACW species | <u>20</u> | x 2 = | <u>40</u> | | FAC species | <u>5</u> | x 3 = | <u>15</u> | | FACU species | <u>0</u> | x 4 = | <u>0</u> | | UPL species | <u>0</u> | x 5 = | <u>0</u> | | Column Totals: | <u>55</u> (A) | | <u>85</u> (B) | |
| | Total % Cover of: | | Multiply by: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBL species | <u>30</u> | x 1 = | <u>30</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACW species | <u>20</u> | x 2 = | <u>40</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAC species | <u>5</u> | x 3 = | <u>15</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACU species | <u>0</u> | x 4 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UPL species | <u>0</u> | x 5 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Column Totals: | <u>55</u> (A) | | <u>85</u> (B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Remarks: (Include photo numbers here or on a separate sheet.)</p> <p>The criterion for hydrophytic vegetation is met.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|----|----------------|----|-------------------|------------------|-----------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0 to 8 | 10YR 5/1 | 75 | 10YR 6/8 | 25 | C | M | Silty Clay Loam | |
| 8 to 20 | N 3/ | 90 | 10YR 6/6 | 10 | C | M | Silty Clay Loam | |
| | | | | | | | | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR R, MLRA 149B)**

- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- Coast Prairie Redox (A16) **(LRR K, L, R)**
- 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- Dark Surface (S7) **(LRR K, L)**
- Polyvalue Below Surface (S8) **(LRR K, L)**
- Thin Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Levis Park-Midway Switch City/County: Waterville, Lucas County Sampling Date: 2024-8-13
 Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-02_UPL-1
 Investigator(s): Erin Van Nort, Lily Sobey Section, Township, Range: NA
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): None Slope (%): 1 to 3
 Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5093728109 Long: -83.7419852615 Datum: WGS84
 Soil Map Unit Name: Toledo silty clay, 0 to 1 percent slopes NWI Classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>W-EVN-02</u> |
| Remarks: (Explain alternative procedures here or in a separate report.) Coverture is UPL. Based on the absence of all three parameters, this area is an upland. | |

HYDROLOGY

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|---|---|---|--|--|--|--|---|---|---|--|---|--|--|---|---|--|--|--|--|--|--|---|--|---|--|
| <p>Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table> | <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | <p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border: none;"> <tr><td style="border: none;"><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table> | <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | <input type="checkbox"/> Moss Trim Lines (B16) | <input type="checkbox"/> Dry-Season Water Table (C2) | <input type="checkbox"/> Crayfish Burrows (C8) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | <input type="checkbox"/> Stunted or Stressed Plants (D1) | <input type="checkbox"/> Geomorphic Position (D2) | <input type="checkbox"/> Shallow Aquitard (D3) | <input type="checkbox"/> Microtopographic Relief (D4) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Surface Soil Cracks (B6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drainage Patterns (B10) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Moss Trim Lines (B16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Dry-Season Water Table (C2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Crayfish Burrows (C8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Geomorphic Position (D2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Shallow Aquitard (D3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Microtopographic Relief (D4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> FAC-Neutral Test (D5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Field Observations:</p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | <p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: The criterion for wetland hydrology is not met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VEGETATION – Use scientific names of plants.

Sampling Point: W-EVN-02_UPL-1

| | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------|----------------------|---------------------|--|--|-------------------|--|--------------|-------------|----------|-------|----------|--------------|----------|-------|----------|-------------|----------|-------|----------|--------------|-----------|-------|------------|-------------|-----------|-------|-----------|----------------|----------------|--|----------------|
| Tree Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>0</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>0</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>100</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>0</u> | = Total Cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="float: right; width: 40%;"> <p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>5</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p>Prevalence Index worksheet:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:20%; text-align:center;">Total % Cover of:</th> <th style="width:20%;"></th> <th style="width:20%; text-align:center;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;"><u>85</u></td> <td>x 4 =</td> <td style="text-align:center;"><u>340</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;"><u>15</u></td> <td>x 5 =</td> <td style="text-align:center;"><u>75</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;"><u>100</u> (A)</td> <td></td> <td style="text-align:center;"><u>415</u> (B)</td> </tr> </tbody> </table> <p style="text-align: right;">Prevalence Index = B/A = <u>4.2</u></p> <hr/> <p>Hydrophytic Vegetation Indicators:</p> <p><u> </u> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><u> </u> 2 - Dominance Test is >50%</p> <p><u> </u> 3 - Prevalence Index is ≤3.0¹</p> <p><u> </u> 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><u> </u> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p>Definitions of Vegetation Strata:</p> <p>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines – All woody vines greater than 3.28 ft in height.</p> <hr/> <p>Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u></p> </div> | | | | | | Total % Cover of: | | Multiply by: | OBL species | <u>0</u> | x 1 = | <u>0</u> | FACW species | <u>0</u> | x 2 = | <u>0</u> | FAC species | <u>0</u> | x 3 = | <u>0</u> | FACU species | <u>85</u> | x 4 = | <u>340</u> | UPL species | <u>15</u> | x 5 = | <u>75</u> | Column Totals: | <u>100</u> (A) | | <u>415</u> (B) |
| | Total % Cover of: | | Multiply by: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBL species | <u>0</u> | x 1 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACW species | <u>0</u> | x 2 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAC species | <u>0</u> | x 3 = | <u>0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FACU species | <u>85</u> | x 4 = | <u>340</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UPL species | <u>15</u> | x 5 = | <u>75</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Column Totals: | <u>100</u> (A) | | <u>415</u> (B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Remarks: (Include photo numbers here or on a separate sheet.)</p> <p>The criterion for hydrophytic vegetation is not met.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Levis Park-Midway Switch City/County: Waterville, Lucas County Sampling Date: 2024-8-13
 Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-03_PEM-1
 Investigator(s): Erin Van Nort, Lily Sobey Section, Township, Range: NA
 Landform (hillslope, terrace, etc): Channel Local relief (concave, convex, none): None Slope (%): 1 to 3
 Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5085698245 Long: -83.7431055029 Datum: WGS84
 Soil Map Unit Name: Toledo silty clay, 0 to 1 percent slopes NWI Classification: R2UBFx
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-EVN-03</u> |
| Remarks: (Explain alternative procedures here or in a separate report.) Coverture is PEM. Based on the presence of all three parameters, this area is a wetland. | |

HYDROLOGY

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---|--|---|--|---|---|---|--|--|--|--|---|---|---|--|---|--|--|---|---|--|--|--|--|--|--|--|--|---|---|
| <p>Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td style="border: none;"></td> </tr> </table> | <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | <p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border: none;"> <tr><td style="border: none;"><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td style="border: none;"><input checked="" type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td style="border: none;"><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table> | <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | <input type="checkbox"/> Moss Trim Lines (B16) | <input type="checkbox"/> Dry-Season Water Table (C2) | <input type="checkbox"/> Crayfish Burrows (C8) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | <input type="checkbox"/> Stunted or Stressed Plants (D1) | <input checked="" type="checkbox"/> Geomorphic Position (D2) | <input type="checkbox"/> Shallow Aquitard (D3) | <input type="checkbox"/> Microtopographic Relief (D4) | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Surface Soil Cracks (B6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drainage Patterns (B10) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Moss Trim Lines (B16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Dry-Season Water Table (C2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Crayfish Burrows (C8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Geomorphic Position (D2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Shallow Aquitard (D3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Microtopographic Relief (D4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Field Observations:</p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> (includes capillary fringe) | <p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: The criterion for wetland hydrology is met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VEGETATION – Use scientific names of plants.

Sampling Point: W-EVN-03_PEM-1

| | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
|--|---------------------|----------------------|---------------------|------|-------------------|--------------|-----------------------|-----------------|------------------------|------------------|----------------------|----------------|-----------------------|----------------|----------------------|----------------|-------------------------------|----------------|
| Tree Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5 ft radius</u>) | | | | | | | | | | | | | | | | | | |
| 1. | 35 | Yes | | OBL | | | | | | | | | | | | | | |
| 2. | 30 | Yes | | FACW | | | | | | | | | | | | | | |
| 3. | 20 | Yes | | FACW | | | | | | | | | | | | | | |
| 4. | 10 | No | | FACW | | | | | | | | | | | | | | |
| 5. | 5 | No | | FACW | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | | | | |
| | 100 | = Total Cover | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>30 ft radius</u>) | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| | 0 | = Total Cover | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> </div> <div style="width: 35%;"> <p>Prevalence Index worksheet:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align:left;">Total % Cover of:</th> <th style="text-align:left;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>35</u></td> <td>x 1 = <u>35</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>165</u> (B)</td> </tr> </tbody> </table> <p style="text-align:right;">Prevalence Index = B/A = <u>1.7</u></p> </div> </div> | | | | | Total % Cover of: | Multiply by: | OBL species <u>35</u> | x 1 = <u>35</u> | FACW species <u>65</u> | x 2 = <u>130</u> | FAC species <u>0</u> | x 3 = <u>0</u> | FACU species <u>0</u> | x 4 = <u>0</u> | UPL species <u>0</u> | x 5 = <u>0</u> | Column Totals: <u>100</u> (A) | <u>165</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>35</u> | x 1 = <u>35</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>65</u> | x 2 = <u>130</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>0</u> | x 3 = <u>0</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>0</u> | x 4 = <u>0</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>0</u> | x 5 = <u>0</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>100</u> (A) | <u>165</u> (B) | | | | | | | | | | | | | | | | | |
| <p>Hydrophytic Vegetation Indicators:</p> <p><input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input checked="" type="checkbox"/> 2 - Dominance Test is >50%</p> <p><input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0¹</p> <p><u> </u> 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><u> </u> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> | | | | | | | | | | | | | | | | | | |
| <p>Definitions of Vegetation Strata:</p> <p>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines – All woody vines greater than 3.28 ft in height.</p> | | | | | | | | | | | | | | | | | | |
| <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> | | | | | | | | | | | | | | | | | | |
| <p>Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is met.</p> | | | | | | | | | | | | | | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|----|----------------|----|-------------------|------------------|-----------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0 to 8 | 10YR 5/1 | 85 | 10YR 6/6 | 15 | C | M | Silty Clay Loam | |
| 8 to 20 | N 4/ | 90 | 10YR 5/8 | 10 | C | M | Silty Clay Loam | |
| | | | | | | | | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR R, MLRA 149B)**

- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- Coast Prairie Redox (A16) **(LRR K, L, R)**
- 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- Dark Surface (S7) **(LRR K, L)**
- Polyvalue Below Surface (S8) **(LRR K, L)**
- Thin Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Levis Park-Midway Switch City/County: Waterville, Lucas County Sampling Date: 2024-8-13
 Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-03_UPL-1
 Investigator(s): Erin Van Nort, Lily Sobey Section, Township, Range: NA
 Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): None Slope (%): 0 to 1
 Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5085017216 Long: -83.7431069278 Datum: WGS84
 Soil Map Unit Name: Toledo silty clay, 0 to 1 percent slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>W-EVN-03</u> |
| Remarks: (Explain alternative procedures here or in a separate report.) Coverture is UPL. Based on the absence of all three parameters, this area is an upland. | |

HYDROLOGY

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|--|--|--|--|--|--|--|---|---|---|--|--|--|--|---|---|---|--|---|--|--|---|---|--|--|--|--|--|--|---|--|---|--|
| <p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table> | <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | <p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%; border: none;"> <tr><td style="border: none;"><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table> | <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | <input type="checkbox"/> Moss Trim Lines (B16) | <input type="checkbox"/> Dry-Season Water Table (C2) | <input type="checkbox"/> Crayfish Burrows (C8) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | <input type="checkbox"/> Stunted or Stressed Plants (D1) | <input type="checkbox"/> Geomorphic Position (D2) | <input type="checkbox"/> Shallow Aquitard (D3) | <input type="checkbox"/> Microtopographic Relief (D4) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Surface Soil Cracks (B6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Drainage Patterns (B10) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Moss Trim Lines (B16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Dry-Season Water Table (C2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Crayfish Burrows (C8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Geomorphic Position (D2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Shallow Aquitard (D3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Microtopographic Relief (D4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> FAC-Neutral Test (D5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Field Observations:</p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | <p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: The criterion for wetland hydrology is not met. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VEGETATION – Use scientific names of plants.

Sampling Point: W-EVN-03_UPL-1

| | Absolute % Cover | Dominant Species? | Indicator Status | |
|--|---------------------|----------------------|---------------------|--|
| Tree Stratum (Plot size: <u>30 ft radius</u>) | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| | <u>0</u> | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| | <u>0</u> | = Total Cover | | |
| Herb Stratum (Plot size: <u>5 ft radius</u>) | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| | <u>100</u> | = Total Cover | | |
| Woody Vine Stratum (Plot size: <u>30 ft radius</u>) | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| | <u>0</u> | = Total Cover | | |

| | |
|--|--------------------|
| Dominance Test worksheet: | |
| Number of Dominant Species That Are OBL, FACW, or FAC: | <u>1</u> (A) |
| Total Number of Dominant Species Across All Strata: | <u>3</u> (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>33.3%</u> (A/B) |
| Prevalence Index worksheet: | |
| Total % Cover of: | Multiply by: |
| OBL species <u>0</u> | x 1 = <u>0</u> |
| FACW species <u>0</u> | x 2 = <u>0</u> |
| FAC species <u>20</u> | x 3 = <u>60</u> |
| FACU species <u>10</u> | x 4 = <u>40</u> |
| UPL species <u>25</u> | x 5 = <u>125</u> |
| Column Totals: <u>55</u> (A) | <u>225</u> (B) |
| Prevalence Index = B/A = <u>4.1</u> | |
| Hydrophytic Vegetation Indicators: | |
| <u> </u> 1 - Rapid Test for Hydrophytic Vegetation | |
| <u> </u> 2 - Dominance Test is >50% | |
| <u> </u> 3 - Prevalence Index is ≤3.0 ¹ | |
| <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| Definitions of Vegetation Strata: | |
| Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | |
| Sapling/shrub – Woody plants 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 vines – All woody vines greater than 3.28 ft in height. | |
| Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u> | |

Remarks: (Include photo numbers here or on a separate sheet.)
The criterion for hydrophytic vegetation is not met.

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|-----|----------------|---|-------------------|------------------|-----------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0 to 20 | 10YR 4/2 | 100 | | | | | Silty Clay Loam | |
| | | | | | | | | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | |
|---|---|---|
| <p>Hydric Soil Indicators:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | <ul style="list-style-type: none"> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) | <p>Indicators for Problematic Hydric Soils³:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Muck Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) |
|---|---|---|

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

| | |
|---|---|
| <p>Restrictive Layer (if present): Type: _____ Depth (inches): _____</p> | <p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p> |
|---|---|

Remarks:
 The criterion for hydric soil is not met.

OEPA ORAM Data Forms

Background Information

| | |
|---|-----------------------|
| Name: Erin Van Nort; Lily Sobey | |
| Date: 8/13/2024 | |
| Affiliation: TRC Environmental Corporation | |
| Address: 1382 West Ninth Street, Suite 400 Cleveland, OH 44113 | |
| Phone Number: (216) 347-3342 | |
| e-mail address: evannort@trccompanies.com | |
| Name of Wetland: W-EVN-01 | |
| Vegetation Communit(ies): PEM, PFO | |
| HGM Class(es): Depression | |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Wetland W-EVN-01 is located west of Waterville Monclova Rd in the city of Waterville, Lucas County, Ohio. | |
| | |
| Lat/Long or UTM Coordinate | 41.509012, -83.739487 |
| USGS Quad Name | Maumee |
| County | Lucas |
| Township | Waterville |
| Section and Subsection | T1N |
| Hydrologic Unit Code | 04100009 0804 |
| Site Visit | 8/13/2024 |
| National Wetland Inventory Map | None |
| Ohio Wetland Inventory Map | N/A |
| Soil Survey | To |
| Delineation report/map | See Tech Memo |

| | |
|--|---|
| Name of Wetland: W-EVN-01 | |
| Wetland Size (acres, hectares): | Acreage on-site (Estimated Acreage of Contiguous Wetland) 0.005-acre (~0.25-acre) |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. Please see the Surface Water Delineation Tech Memo for the Levis Park - Midway Switch Project, Attachment A, Figure 5 Delineated Resource Map for further details. | |
| Comments, Narrative Discussion, Justification of Category Changes: | |
| Final score : 8 | Category: 1 |

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

| # | Steps in properly establishing scoring boundaries | done? | not applicable |
|---------------|---|-------|----------------|
| Step 1 | Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc. | X | |
| Step 2 | Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland. | X | |
| Step 3 | Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary. | X | |
| Step 4 | Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes. | X | |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately. | | X |
| Step 6 | Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications. | X | |

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

| # | Question | Circle one | |
|----|---|---|--|
| 1 | Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000). | YES Wetland should be evaluated for possible Category 3 status Go to Question 2 | <input checked="" type="radio"/> NO Go to Question 2 |
| 2 | Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species? | YES Wetland is a Category 3 wetland. Go to Question 3 | <input checked="" type="radio"/> NO Go to Question 3 |
| 3 | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland? | YES Wetland is a Category 3 wetland Go to Question 4 | <input checked="" type="radio"/> NO Go to Question 4 |
| 4 | Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas? | YES Wetland is a Category 3 wetland Go to Question 5 | <input checked="" type="radio"/> NO Go to Question 5 |
| 5 | Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation? | YES Wetland is a Category 1 wetland Go to Question 6 | <input checked="" type="radio"/> NO Go to Question 6 |
| 6 | Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%? | YES Wetland is a Category 3 wetland Go to Question 7 | <input checked="" type="radio"/> NO Go to Question 7 |
| 7 | Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%? | YES Wetland is a Category 3 wetland Go to Question 8a | <input checked="" type="radio"/> NO Go to Question 8a |
| 8a | "Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs? | YES Wetland is a Category 3 wetland. Go to Question 8b | <input checked="" type="radio"/> NO Go to Question 8b |

| | | | |
|-----------|---|---|---|
| 8b | Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh? | YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a | NO Go to Question 9a |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? | YES Go to Question 9b | NO Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 9c |
| 9c | Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation. | YES Go to Question 9d | NO Go to Question 10 |
| 9d | Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present? | YES Wetland is a Category 3 wetland Go to Question 10 | NO Go to Question 9e |
| 9e | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 10 |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality. | YES Wetland is a Category 3 wetland. Go to Question 11 | NO Go to Question 11 |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.). | YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating | NO Complete Quantitative Rating |

Table 1. Characteristic plant species.

| invasive/exotic spp | fen species | bog species | Oak Opening species | wet prairie species |
|------------------------------|---------------------------------------|--|---------------------------------|----------------------------------|
| <i>Lythrum salicaria</i> | <i>Zygadenus elegans var. glaucus</i> | <i>Calla palustris</i> | <i>Carex cryptolepis</i> | <i>Calamagrostis canadensis</i> |
| <i>Myriophyllum spicatum</i> | <i>Cacalia plantaginea</i> | <i>Carex atlantica var. capillacea</i> | <i>Carex lasiocarpa</i> | <i>Calamagrostis stricta</i> |
| <i>Najas minor</i> | <i>Carex flava</i> | <i>Carex echinata</i> | <i>Carex stricta</i> | <i>Carex atherodes</i> |
| <i>Phalaris arundinacea</i> | <i>Carex sterilis</i> | <i>Carex oligosperma</i> | <i>Cladium mariscoides</i> | <i>Carex buxbaumii</i> |
| <i>Phragmites australis</i> | <i>Carex stricta</i> | <i>Carex trisperma</i> | <i>Calamagrostis stricta</i> | <i>Carex pellita</i> |
| <i>Potamogeton crispus</i> | <i>Deschampsia caespitosa</i> | <i>Chamaedaphne calyculata</i> | <i>Calamagrostis canadensis</i> | <i>Carex sartwellii</i> |
| <i>Ranunculus ficaria</i> | <i>Eleocharis rostellata</i> | <i>Decodon verticillatus</i> | <i>Quercus palustris</i> | <i>Gentiana andrewsii</i> |
| <i>Rhamnus frangula</i> | <i>Eriophorum viridicarinarum</i> | <i>Eriophorum virginicum</i> | | <i>Helianthus grosseserratus</i> |
| <i>Typha angustifolia</i> | <i>Gentianopsis spp.</i> | <i>Larix laricina</i> | | <i>Liatris spicata</i> |
| <i>Typha xglauca</i> | <i>Lobelia kalmii</i> | <i>Nemopanthus mucronatus</i> | | <i>Lysimachia quadriflora</i> |
| | <i>Parnassia glauca</i> | <i>Scheuchzeria palustris</i> | | <i>Lythrum alatum</i> |
| | <i>Potentilla fruticosa</i> | <i>Sphagnum spp.</i> | | <i>Pycnanthemum virginianum</i> |
| | <i>Rhamnus alnifolia</i> | <i>Vaccinium macrocarpon</i> | | <i>Silphium terebinthinaceum</i> |
| | <i>Rhynchospora capillacea</i> | <i>Vaccinium corymbosum</i> | | <i>Sorghastrum nutans</i> |
| | <i>Salix candida</i> | <i>Vaccinium oxycoccos</i> | | <i>Spartina pectinata</i> |
| | <i>Salix myricoides</i> | <i>Woodwardia virginica</i> | | <i>Solidago riddellii</i> |
| | <i>Salix serissima</i> | <i>Xyris difformis</i> | | |
| | <i>Solidago ohioensis</i> | | | |
| | <i>Tofieldia glutinosa</i> | | | |
| | <i>Triglochin maritimum</i> | | | |
| | <i>Triglochin palustre</i> | | | |

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: FirstEnergy, Levis Park-Midway Switch Rater(s): Erin Van Nort, Lily Sobey Date: 2024-08-13

1 1
max 6 pts. subtotal

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)
[X] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
<0.1 acres (0.04ha) (0 pts)

1 2
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
[] 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)
[X] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. 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), shrub land, 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)

6 8
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- [] High pH groundwater (5)
[] Other groundwater (3)
[X] Precipitation (1)
[] Seasonal/Intermittent surface water (3)
[] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [] 100 year floodplain (1)
[] Between stream/lake and other human use (1)
[X] Part of wetland/upland (e.g. forest), complex (1)
[] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [] >0.7 m (>27.6 in) (3)
[] 0.4 to 0.7 m (15.7 to 27.6 in) (2)
[X] <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [] Semi- to permanently inundated/saturated (4)
[] Regularly inundated/saturated (3)
[X] Seasonally inundated (2)
[] 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)
[] Recovered (7)
[] Recovering (3)
[X] Recent or no recovery (1)

Check all disturbances observed
ditch point source (nonstormwater)
tile filling/grading
dike road bed/RR track
weir dredging
stormwater input other

4 12
max 20 pts. subtotal

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)
[X] 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)
[] Recovering (3)
[X] Recent or no recovery (1)

Check all disturbances observed
mowing shrub/sapling removal
grazing herbaceous/aquatic bed removal
clearcutting sedimentation
[X] selective cutting dredging
woody debris removal farming
toxic pollutants nutrient enrichment

12
subtotal this page

| | | |
|--|--|-------------------------|
| Site: FirstEnergy, Levis Park-Midway Switch | Rater(s): Erin Van Nort, Lily Sobey | Date: 2024-08-13 |
|--|--|-------------------------|

12

subtotal first page

| | |
|-------------|----------|
| 0 | 12 |
| max 10 pts. | subtotal |

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- 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)

| | |
|-------------|----------|
| -4 | 8 |
| max 20 pts. | subtotal |

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic Bed
- 1 Emergent
- Shrub
- 0 Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

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

- 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.

- 0 Vegetated hummocks/tussucks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 0 Amphibian breeding pools

Vegetation Community Cover Scale

| | |
|---|---|
| 0 | Absent or comprises <0.1ha (0.2471 acres) contiguous area |
| 1 | Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality |
| 2 | Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality |
| 3 | Present and comprises significant part, or more, of wetland's vegetation and is of high quality |

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

8

CATEGORY 1

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

| | | circle answer or insert score | Result |
|----------------------------------|---|---|--|
| Narrative Rating | Question 1. Critical Habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 2. Threatened or Endangered Species | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 3. High Quality Natural Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 4. Significant bird habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 5. Category 1 Wetlands | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 1. |
| | Question 6. Bogs | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 7. Fens | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8a. Old Growth Forest | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8b. Mature Forested Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9b. Lake Erie Wetlands - Restricted | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9d. Lake Erie Wetlands – Unrestricted with native plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| | Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 10. Oak Openings | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| Question 11. Relict Wet Prairies | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. | |
| Quantitative Rating | Metric 1. Size | 1 | |
| | Metric 2. Buffers and surrounding land use | 1 | |
| | Metric 3. Hydrology | 6 | |
| | Metric 4. Habitat | 4 | |
| | Metric 5. Special Wetland Communities | 0 | |
| | Metric 6. Plant communities, interspersion, microtopography | -4 | |
| | TOTAL SCORE | 8 | Category based on score breakpoints 1 |

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

| Choices | Circle one | | Evaluation of Categorization Result of ORAM |
|---|---|-------------------------------------|--|
| <p>Did you answer "Yes" to any of the following questions:</p> <p>Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10</p> | <p>YES</p> <p>Wetland is categorized as a Category 3 wetland</p> | <input checked="" type="radio"/> NO | <p>Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM</p> |
| <p>Did you answer "Yes" to any of the following questions:</p> <p>Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p> | <p>YES</p> <p>Wetland should be evaluated for possible Category 3 status</p> | <input checked="" type="radio"/> NO | <p>Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.</p> |
| <p>Did you answer "Yes" to</p> <p>Narrative Rating No. 5</p> | <p>YES</p> <p>Wetland is categorized as a Category 1 wetland</p> | <input checked="" type="radio"/> NO | <p>Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM</p> |
| <p>Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?</p> | <input checked="" type="radio"/> YES | <input type="radio"/> NO | <p>If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.</p> |
| <p>Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?</p> | <p>YES</p> <p>Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria</p> | <input checked="" type="radio"/> NO | <p>Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).</p> |
| <p>Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p> | <p>YES</p> <p>Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form</p> | <input checked="" type="radio"/> NO | <p>A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.</p> |

Final Category

Choose one
Category 1
Category 2
Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

| | |
|---|-----------------------|
| Name: Erin Van Nort; Lily Sobey | |
| Date: 8/13/2024 | |
| Affiliation: TRC Environmental Corporation | |
| Address: 1382 West Ninth Street, Suite 400 Cleveland, OH 44113 | |
| Phone Number: (216) 347-3342 | |
| e-mail address: evannort@trccompanies.com | |
| Name of Wetland: W-EVN-02 | |
| Vegetation Communit(ies): PEM, PUBHx | |
| HGM Class(es): Depression | |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Wetland W-EVN-02 is located south of Dublin Dr in the city of Waterville, Lucas County, Ohio. | |
| | |
| Lat/Long or UTM Coordinate | 41.509379, -83.742015 |
| USGS Quad Name | Maumee |
| County | Lucas |
| Township | Waterville |
| Section and Subsection | T1N |
| Hydrologic Unit Code | 04100009 0804 |
| Site Visit | 8/13/2024 |
| National Wetland Inventory Map | PUBHx |
| Ohio Wetland Inventory Map | N/A |
| Soil Survey | DsA |
| Delineation report/map | See Tech Memo |

| | |
|--|---|
| Name of Wetland: W-EVN-02 | |
| Wetland Size (acres, hectares): | Acreage on-site (Estimated Acreage of Contiguous Wetland) 0.030-acre (~0.25-acre) |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. Please see the Surface Water Delineation Tech Memo for the Levis Park - Midway Switch Project, Attachment A, Figure 5 Delineated Resource Map for further details. | |
| Comments, Narrative Discussion, Justification of Category Changes: | |
| Final score : 25 | Category: 1 |

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

| # | Steps in properly establishing scoring boundaries | done? | not applicable |
|---------------|---|-------|----------------|
| Step 1 | Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc. | X | |
| Step 2 | Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland. | X | |
| Step 3 | Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary. | X | |
| Step 4 | Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes. | X | |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately. | | X |
| Step 6 | Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications. | X | |

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

| # | Question | Circle one | |
|----|---|---|--|
| 1 | Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000). | YES Wetland should be evaluated for possible Category 3 status Go to Question 2 | <input checked="" type="radio"/> NO Go to Question 2 |
| 2 | Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species? | YES Wetland is a Category 3 wetland. Go to Question 3 | <input checked="" type="radio"/> NO Go to Question 3 |
| 3 | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland? | YES Wetland is a Category 3 wetland Go to Question 4 | <input checked="" type="radio"/> NO Go to Question 4 |
| 4 | Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas? | YES Wetland is a Category 3 wetland Go to Question 5 | <input checked="" type="radio"/> NO Go to Question 5 |
| 5 | Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation? | YES Wetland is a Category 1 wetland Go to Question 6 | <input checked="" type="radio"/> NO Go to Question 6 |
| 6 | Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%? | YES Wetland is a Category 3 wetland Go to Question 7 | <input checked="" type="radio"/> NO Go to Question 7 |
| 7 | Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%? | YES Wetland is a Category 3 wetland Go to Question 8a | <input checked="" type="radio"/> NO Go to Question 8a |
| 8a | "Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs? | YES Wetland is a Category 3 wetland. Go to Question 8b | <input checked="" type="radio"/> NO Go to Question 8b |

| | | | |
|-----------|---|---|---|
| 8b | Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh? | YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a | NO Go to Question 9a |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? | YES Go to Question 9b | NO Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 9c |
| 9c | Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation. | YES Go to Question 9d | NO Go to Question 10 |
| 9d | Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present? | YES Wetland is a Category 3 wetland Go to Question 10 | NO Go to Question 9e |
| 9e | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 10 |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality. | YES Wetland is a Category 3 wetland. Go to Question 11 | NO Go to Question 11 |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.). | YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating | NO Complete Quantitative Rating |

Table 1. Characteristic plant species.

| invasive/exotic spp | fen species | bog species | Oak Opening species | wet prairie species |
|------------------------------|---------------------------------------|--|---------------------------------|----------------------------------|
| <i>Lythrum salicaria</i> | <i>Zygadenus elegans var. glaucus</i> | <i>Calla palustris</i> | <i>Carex cryptolepis</i> | <i>Calamagrostis canadensis</i> |
| <i>Myriophyllum spicatum</i> | <i>Cacalia plantaginea</i> | <i>Carex atlantica var. capillacea</i> | <i>Carex lasiocarpa</i> | <i>Calamagrostis stricta</i> |
| <i>Najas minor</i> | <i>Carex flava</i> | <i>Carex echinata</i> | <i>Carex stricta</i> | <i>Carex atherodes</i> |
| <i>Phalaris arundinacea</i> | <i>Carex sterilis</i> | <i>Carex oligosperma</i> | <i>Cladium mariscoides</i> | <i>Carex buxbaumii</i> |
| <i>Phragmites australis</i> | <i>Carex stricta</i> | <i>Carex trisperma</i> | <i>Calamagrostis stricta</i> | <i>Carex pellita</i> |
| <i>Potamogeton crispus</i> | <i>Deschampsia caespitosa</i> | <i>Chamaedaphne calyculata</i> | <i>Calamagrostis canadensis</i> | <i>Carex sartwellii</i> |
| <i>Ranunculus ficaria</i> | <i>Eleocharis rostellata</i> | <i>Decodon verticillatus</i> | <i>Quercus palustris</i> | <i>Gentiana andrewsii</i> |
| <i>Rhamnus frangula</i> | <i>Eriophorum viridicarinarum</i> | <i>Eriophorum virginicum</i> | | <i>Helianthus grosseserratus</i> |
| <i>Typha angustifolia</i> | <i>Gentianopsis spp.</i> | <i>Larix laricina</i> | | <i>Liatris spicata</i> |
| <i>Typha xglauca</i> | <i>Lobelia kalmii</i> | <i>Nemopanthus mucronatus</i> | | <i>Lysimachia quadriflora</i> |
| | <i>Parnassia glauca</i> | <i>Scheuchzeria palustris</i> | | <i>Lythrum alatum</i> |
| | <i>Potentilla fruticosa</i> | <i>Sphagnum spp.</i> | | <i>Pycnanthemum virginianum</i> |
| | <i>Rhamnus alnifolia</i> | <i>Vaccinium macrocarpon</i> | | <i>Silphium terebinthinaceum</i> |
| | <i>Rhynchospora capillacea</i> | <i>Vaccinium corymbosum</i> | | <i>Sorghastrum nutans</i> |
| | <i>Salix candida</i> | <i>Vaccinium oxycoccos</i> | | <i>Spartina pectinata</i> |
| | <i>Salix myricoides</i> | <i>Woodwardia virginica</i> | | <i>Solidago riddellii</i> |
| | <i>Salix serissima</i> | <i>Xyris difformis</i> | | |
| | <i>Solidago ohioensis</i> | | | |
| | <i>Tofieldia glutinosa</i> | | | |
| | <i>Triglochin maritimum</i> | | | |
| | <i>Triglochin palustre</i> | | | |

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: FirstEnergy, Levis Park-Midway Switch Rater(s): Erin Van Nort, Lily Sobey Date: 2024-08-13

1 1
max 6 pts. subtotal

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)
[X] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
<0.1 acres (0.04ha) (0 pts)

1 2
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
[] 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)
[X] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. 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), shrub land, 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)

13 15
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- [] High pH groundwater (5)
[] Other groundwater (3)
[X] Precipitation (1)
[] Seasonal/Intermittent surface water (3)
[] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [] 100 year floodplain (1)
[] Between stream/lake and other human use (1)
[X] Part of wetland/upland (e.g. forest), complex (1)
[] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [] >0.7 m (>27.6 in) (3)
[X] 0.4 to 0.7 m (15.7 to 27.6 in) (2)
[] <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [X] Semi- to permanently inundated/saturated (4)
[] Regularly inundated/saturated (3)
[] Seasonally inundated (2)
[] 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)
[X] Recovered (7)
[X] Recovering (3)
[] Recent or no recovery (1)

Check all disturbances observed
[] ditch [] point source (nonstormwater)
[] tile [X] filling/grading
[] dike [] road bed/RR track
[] weir [X] dredging
[X] stormwater input [] other

7 22
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- [] None or none apparent (4)
[X] Recovered (3)
[] Recovering (2)
[] 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)
[] Poor to fair (2)
[X] 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)

Check all disturbances observed
[X] mowing [] shrub/sapling removal
[] grazing [] herbaceous/aquatic bed removal
[] clearcutting [X] sedimentation
[] selective cutting [] dredging
[] woody debris removal [X] farming
[] toxic pollutants [] nutrient enrichment

22
subtotal this page

| | | |
|--|--|-------------------------|
| Site: FirstEnergy, Levis Park-Midway Switch | Rater(s): Erin Van Nort, Lily Sobey | Date: 2024-08-13 |
|--|--|-------------------------|

22

subtotal first page

| | |
|---|----|
| 0 | 22 |
|---|----|

max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- 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)

| | |
|---|----|
| 3 | 25 |
|---|----|

max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- 0 Aquatic Bed
- 1 Emergent
- Shrub
- Forest
- Mudflats
- 0 Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

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

- 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.

- 0 Vegetated hummocks/tussucks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 1 Amphibian breeding pools

Vegetation Community Cover Scale

| | |
|---|---|
| 0 | Absent or comprises <0.1ha (0.2471 acres) contiguous area |
| 1 | Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality |
| 2 | Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality |
| 3 | Present and comprises significant part, or more, of wetland's vegetation and is of high quality |

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

| |
|----|
| 25 |
|----|

CATEGORY 1

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

| | | circle answer or insert score | Result |
|----------------------------------|---|---|--|
| Narrative Rating | Question 1. Critical Habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 2. Threatened or Endangered Species | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 3. High Quality Natural Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 4. Significant bird habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 5. Category 1 Wetlands | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 1. |
| | Question 6. Bogs | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 7. Fens | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8a. Old Growth Forest | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8b. Mature Forested Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9b. Lake Erie Wetlands - Restricted | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9d. Lake Erie Wetlands – Unrestricted with native plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| | Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 10. Oak Openings | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| Question 11. Relict Wet Prairies | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. | |
| Quantitative Rating | Metric 1. Size | 1 | |
| | Metric 2. Buffers and surrounding land use | 1 | |
| | Metric 3. Hydrology | 13 | |
| | Metric 4. Habitat | 7 | |
| | Metric 5. Special Wetland Communities | 0 | |
| | Metric 6. Plant communities, interspersions, microtopography | 3 | |
| | TOTAL SCORE | 25 | Category based on score breakpoints 1 |

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

| Choices | Circle one | | Evaluation of Categorization Result of ORAM |
|---|---|-------------------------------------|--|
| <p>Did you answer "Yes" to any of the following questions:</p> <p>Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10</p> | <p>YES</p> <p>Wetland is categorized as a Category 3 wetland</p> | <input checked="" type="radio"/> NO | <p>Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM</p> |
| <p>Did you answer "Yes" to any of the following questions:</p> <p>Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p> | <p>YES</p> <p>Wetland should be evaluated for possible Category 3 status</p> | <input checked="" type="radio"/> NO | <p>Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.</p> |
| <p>Did you answer "Yes" to</p> <p>Narrative Rating No. 5</p> | <p>YES</p> <p>Wetland is categorized as a Category 1 wetland</p> | <input checked="" type="radio"/> NO | <p>Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM</p> |
| <p>Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?</p> | <input checked="" type="radio"/> YES | <input type="radio"/> NO | <p>If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.</p> |
| <p>Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?</p> | <p>YES</p> <p>Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria</p> | <input checked="" type="radio"/> NO | <p>Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).</p> |
| <p>Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p> | <p>YES</p> <p>Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form</p> | <input checked="" type="radio"/> NO | <p>A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.</p> |

Final Category

Choose one
Category 1
Category 2
Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

| | |
|---|-----------------------|
| Name: Erin Van Nort; Lily Sobey | |
| Date: 8/13/2024 | |
| Affiliation: TRC Environmental Corporation | |
| Address: 1382 West Ninth Street, Suite 400 Cleveland, OH 44113 | |
| Phone Number: (216) 347-3342 | |
| e-mail address: evannort@trccompanies.com | |
| Name of Wetland: W-EVN-03 | |
| Vegetation Communit(ies): PEM | |
| HGM Class(es): Riverine | |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Wetland W-EVN-03 is located north of Waterville Swanton Rd in the city of Waterville, Lucas County, Ohio. | |
| | |
| Lat/Long or UTM Coordinate | 41.508521, -83.743078 |
| USGS Quad Name | Maumee |
| County | Lucas |
| Township | Waterville |
| Section and Subsection | T1N |
| Hydrologic Unit Code | 04100009 0804 |
| Site Visit | 8/13/2024 |
| National Wetland Inventory Map | R2UBFx |
| Ohio Wetland Inventory Map | N/A |
| Soil Survey | To |
| Delineation report/map | See Tech Memo |

| | |
|---|---|
| Name of Wetland: W-EVN-03 | |
| Wetland Size (acres, hectares): | Acreage on-site (Estimated Acreage of Contiguous Wetland) 0.037-acre (~0.15-acre) |
| <p>Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.</p> <p>Please see the Surface Water Delineation Tech Memo for the Levis Park - Midway Switch Project, Attachment A, Figure 5 Delineated Resource Map for further details.</p> | |
| Comments, Narrative Discussion, Justification of Category Changes: | |
| Final score : 21 | Category: 1 |

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

| # | Steps in properly establishing scoring boundaries | done? | not applicable |
|---------------|---|-------|----------------|
| Step 1 | Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc. | X | |
| Step 2 | Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland. | X | |
| Step 3 | Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary. | X | |
| Step 4 | Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes. | X | |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately. | | X |
| Step 6 | Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications. | X | |

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

| # | Question | Circle one | |
|----|---|---|--|
| 1 | Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000). | YES Wetland should be evaluated for possible Category 3 status Go to Question 2 | <input checked="" type="radio"/> NO Go to Question 2 |
| 2 | Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species? | YES Wetland is a Category 3 wetland. Go to Question 3 | <input checked="" type="radio"/> NO Go to Question 3 |
| 3 | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland? | YES Wetland is a Category 3 wetland Go to Question 4 | <input checked="" type="radio"/> NO Go to Question 4 |
| 4 | Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas? | YES Wetland is a Category 3 wetland Go to Question 5 | <input checked="" type="radio"/> NO Go to Question 5 |
| 5 | Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation? | YES Wetland is a Category 1 wetland Go to Question 6 | <input checked="" type="radio"/> NO Go to Question 6 |
| 6 | Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%? | YES Wetland is a Category 3 wetland Go to Question 7 | <input checked="" type="radio"/> NO Go to Question 7 |
| 7 | Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%? | YES Wetland is a Category 3 wetland Go to Question 8a | <input checked="" type="radio"/> NO Go to Question 8a |
| 8a | "Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs? | YES Wetland is a Category 3 wetland. Go to Question 8b | <input checked="" type="radio"/> NO Go to Question 8b |

| | | | |
|-----------|---|---|---|
| 8b | Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh? | YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a | NO Go to Question 9a |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? | YES Go to Question 9b | NO Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 9c |
| 9c | Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation. | YES Go to Question 9d | NO Go to Question 10 |
| 9d | Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present? | YES Wetland is a Category 3 wetland Go to Question 10 | NO Go to Question 9e |
| 9e | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 10 |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality. | YES Wetland is a Category 3 wetland. Go to Question 11 | NO Go to Question 11 |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.). | YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating | NO Complete Quantitative Rating |

Table 1. Characteristic plant species.

| invasive/exotic spp | fen species | bog species | Oak Opening species | wet prairie species |
|------------------------------|---------------------------------------|--|---------------------------------|----------------------------------|
| <i>Lythrum salicaria</i> | <i>Zygadenus elegans var. glaucus</i> | <i>Calla palustris</i> | <i>Carex cryptolepis</i> | <i>Calamagrostis canadensis</i> |
| <i>Myriophyllum spicatum</i> | <i>Cacalia plantaginea</i> | <i>Carex atlantica var. capillacea</i> | <i>Carex lasiocarpa</i> | <i>Calamagrostis stricta</i> |
| <i>Najas minor</i> | <i>Carex flava</i> | <i>Carex echinata</i> | <i>Carex stricta</i> | <i>Carex atherodes</i> |
| <i>Phalaris arundinacea</i> | <i>Carex sterilis</i> | <i>Carex oligosperma</i> | <i>Cladium mariscoides</i> | <i>Carex buxbaumii</i> |
| <i>Phragmites australis</i> | <i>Carex stricta</i> | <i>Carex trisperma</i> | <i>Calamagrostis stricta</i> | <i>Carex pellita</i> |
| <i>Potamogeton crispus</i> | <i>Deschampsia caespitosa</i> | <i>Chamaedaphne calyculata</i> | <i>Calamagrostis canadensis</i> | <i>Carex sartwellii</i> |
| <i>Ranunculus ficaria</i> | <i>Eleocharis rostellata</i> | <i>Decodon verticillatus</i> | <i>Quercus palustris</i> | <i>Gentiana andrewsii</i> |
| <i>Rhamnus frangula</i> | <i>Eriophorum viridicarinarum</i> | <i>Eriophorum virginicum</i> | | <i>Helianthus grosseserratus</i> |
| <i>Typha angustifolia</i> | <i>Gentianopsis spp.</i> | <i>Larix laricina</i> | | <i>Liatris spicata</i> |
| <i>Typha xglauca</i> | <i>Lobelia kalmii</i> | <i>Nemopanthus mucronatus</i> | | <i>Lysimachia quadriflora</i> |
| | <i>Parnassia glauca</i> | <i>Scheuchzeria palustris</i> | | <i>Lythrum alatum</i> |
| | <i>Potentilla fruticosa</i> | <i>Sphagnum spp.</i> | | <i>Pycnanthemum virginianum</i> |
| | <i>Rhamnus alnifolia</i> | <i>Vaccinium macrocarpon</i> | | <i>Silphium terebinthinaceum</i> |
| | <i>Rhynchospora capillacea</i> | <i>Vaccinium corymbosum</i> | | <i>Sorghastrum nutans</i> |
| | <i>Salix candida</i> | <i>Vaccinium oxycoccos</i> | | <i>Spartina pectinata</i> |
| | <i>Salix myricoides</i> | <i>Woodwardia virginica</i> | | <i>Solidago riddellii</i> |
| | <i>Salix serissima</i> | <i>Xyris difformis</i> | | |
| | <i>Solidago ohioensis</i> | | | |
| | <i>Tofieldia glutinosa</i> | | | |
| | <i>Triglochin maritimum</i> | | | |
| | <i>Triglochin palustre</i> | | | |

End of Narrative Rating. Begin Quantitative Rating on next page.

| | | |
|--|--|-------------------------|
| Site: FirstEnergy, Levis Park-Midway Switch | Rater(s): Erin Van Nort, Lily Sobey | Date: 2024-08-13 |
|--|--|-------------------------|

| | |
|------------|----------|
| 1 | 1 |
| max 6 pts. | subtotal |

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)

| | |
|-------------|----------|
| 4 | 5 |
| max 14 pts. | subtotal |

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

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

2b. 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), shrub land, 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)

| | |
|-------------|-----------|
| 10 | 15 |
| max 30 pts. | subtotal |

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 m (>27.6 in) (3)
- 0.4 to 0.7 m (15.7 to 27.6 in) (2)
- <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- 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)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

| | |
|---|---|
| <input checked="" type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input checked="" type="checkbox"/> tile | <input type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other |

| | |
|-------------|-----------|
| 5 | 20 |
| max 20 pts. | subtotal |

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)

4b. 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)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

| | |
|---|---|
| <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input type="checkbox"/> clearcutting | <input type="checkbox"/> sedimentation |
| <input checked="" type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input checked="" type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

| |
|--------------------|
| 20 |
| subtotal this page |

| | | |
|--|--|-------------------------|
| Site: FirstEnergy, Levis Park-Midway Switch | Rater(s): Erin Van Nort, Lily Sobey | Date: 2024-08-13 |
|--|--|-------------------------|

20

subtotal first page

| | |
|-------------|----------|
| 0 | 20 |
| max 10 pts. | subtotal |

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

| | |
|-------------|----------|
| 1 | 21 |
| max 20 pts. | subtotal |

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- 0 Aquatic Bed
- 1 Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

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

- 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.

- 0 Vegetated hummocks/tussucks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 0 Amphibian breeding pools

Vegetation Community Cover Scale

| | |
|---|---|
| 0 | Absent or comprises <0.1ha (0.2471 acres) contiguous area |
| 1 | Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality |
| 2 | Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality |
| 3 | Present and comprises significant part, or more, of wetland's vegetation and is of high quality |

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

21

CATEGORY 1

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

| | | circle answer or insert score | Result |
|----------------------------------|---|---|--|
| Narrative Rating | Question 1. Critical Habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 2. Threatened or Endangered Species | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 3. High Quality Natural Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 4. Significant bird habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 5. Category 1 Wetlands | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 1. |
| | Question 6. Bogs | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 7. Fens | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8a. Old Growth Forest | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8b. Mature Forested Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9b. Lake Erie Wetlands - Restricted | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9d. Lake Erie Wetlands – Unrestricted with native plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| | Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 10. Oak Openings | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| Question 11. Relict Wet Prairies | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. | |
| Quantitative Rating | Metric 1. Size | 1 | |
| | Metric 2. Buffers and surrounding land use | 4 | |
| | Metric 3. Hydrology | 10 | |
| | Metric 4. Habitat | 5 | |
| | Metric 5. Special Wetland Communities | 0 | |
| | Metric 6. Plant communities, interspersions, microtopography | 1 | |
| | TOTAL SCORE | 21 | Category based on score breakpoints 1 |

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

| Choices | Circle one | Evaluation of Categorization Result of ORAM |
|---|---|--|
| <p>Did you answer "Yes" to any of the following questions:</p> <p>Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10</p> | <p>YES</p> <p>Wetland is categorized as a Category 3 wetland</p> | <p>NO</p> <p>Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM</p> |
| <p>Did you answer "Yes" to any of the following questions:</p> <p>Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p> | <p>YES</p> <p>Wetland should be evaluated for possible Category 3 status</p> | <p>NO</p> <p>Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.</p> |
| <p>Did you answer "Yes" to</p> <p>Narrative Rating No. 5</p> | <p>YES</p> <p>Wetland is categorized as a Category 1 wetland</p> | <p>NO</p> <p>Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM</p> |
| <p>Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?</p> | <p>YES</p> <p>assigned to the appropriate category based on the scoring range</p> | <p>NO</p> <p>If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.</p> |
| <p>Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?</p> | <p>YES</p> <p>Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria</p> | <p>NO</p> <p>Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).</p> |
| <p>Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p> | <p>YES</p> <p>Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form</p> | <p>NO</p> <p>Wetland is assigned to category as determined by the ORAM.</p> <p>A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.</p> |

Final Category

Choose one
Category 1
Category 2
Category 3

End of Ohio Rapid Assessment Method for Wetlands.

OEPA HHEI Data Form

SITE NAME/LOCATION S-EVN-01, FirstEnergy - Levis Park-Midway Switch, north of Waterville Swanton Rd Waterville, OH
 SITE NUMBER Farnsworth Ditch RIVER CODE _____ RIVER BASIN Maumee River DRAINAGE AREA (mi²) 0.942
 LENGTH OF STREAM REACH (ft) 164 LAT. 41.5085361221 LONG. -83.7430855743 RIVER MILE N/A
 DATE 2024-08-13 SCORER EVN COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

1. SUBSTRATE: Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

| TYPE | PERCENT | TYPE | PERCENT |
|--|---------|---|---------|
| <input type="checkbox"/> Bldr Slabs [16 pts] | _____ | <input type="checkbox"/> SILT [3 pts] | 5 |
| <input type="checkbox"/> Boulder (>256 mm) [16 pts] | _____ | <input type="checkbox"/> Leaf Pack/Woody Debris [3 pts] | 5 |
| <input type="checkbox"/> Bedrock [16 pts] | _____ | <input type="checkbox"/> Fine Detritus [3 pts] | _____ |
| <input type="checkbox"/> Cobble (65-256 mm) [12 pts] | _____ | <input checked="" type="checkbox"/> Clay or Hardpan [0 pts] | 25 |
| <input type="checkbox"/> Gravel (2-64 mm) [9 pts] | _____ | <input checked="" type="checkbox"/> Muck [0 pts] | 65 |
| <input type="checkbox"/> Sand (<2 mm) [6 pts] | _____ | <input type="checkbox"/> Artificial [3 pts] | _____ |

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 0 **TOTAL NUMBER OF SUBSTRATE TYPES:** 4

2. Maximum Pool Depth Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):

| | |
|--|---|
| <input type="checkbox"/> > 30 centimeters [20 pts] | <input type="checkbox"/> > 5 cm - 10 cm [15 pts] |
| <input type="checkbox"/> > 22.5 - 30 cm [30 pts] | <input type="checkbox"/> < 5 cm [5 pts] |
| <input type="checkbox"/> > 10 - 22.5 cm [25 pts] | <input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts] |

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters):** 0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

| | |
|--|---|
| <input type="checkbox"/> > 4.0 meters (> 13') [30 pts] | <input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] |
| <input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] | <input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts] |
| <input checked="" type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] | |

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters):** 1.6

HHEI Metric Points

Substrate Max = 40

4

A + B

Pool Depth Max = 30

0

Bankfull Width Max=30

20

This information must also be completed

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

| RIPARIAN WIDTH | | FLOODPLAIN QUALITY | |
|-------------------------------------|-------------------------------------|---|-------------------------------------|
| L | R | L | R |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Wide >10m | | Mature Forest, Wetland | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Moderate 5-10m | | Immature Forest, Shrub or Old Field | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Narrow <5m | | Residential, Park, New Field | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| None | | Fenced Pasture | |
| COMMENTS _____ | | <input type="checkbox"/> Mining or Construction | |

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

| | |
|---|---|
| <input type="checkbox"/> Stream Flowing | <input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent) |
| <input type="checkbox"/> Subsurface flow with isolated pools (Interstitial) | <input type="checkbox"/> Dry channel, no water (Ephemeral) |

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

| | | | |
|--|------------------------------|------------------------------|------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> 1.0 | <input type="checkbox"/> 2.0 | <input type="checkbox"/> 3.0 |
| <input type="checkbox"/> 0.5 | <input type="checkbox"/> 1.5 | <input type="checkbox"/> 2.5 | <input type="checkbox"/> >3 |

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

QHEI PERFORMED? Yes No QHEI Score ____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Blystone Ditch

Distance from Evaluated Stream 1.1 miles

CWH Name: ____

Distance from Evaluated Stream ____

EWH Name: ____

Distance from Evaluated Stream ____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: Maumee

NRCS Soil Map Page: N/A

NRCS Soil Map Stream Order N/A

County: Lucas

Township / City: Waterville

MISCELLANEOUS

Base Flow Conditions? (Y/N): .yes Date of last precipitation: 2024-08-09 Quantity: .1

Photo-documentation Notes: ____

Elevated Turbidity? (Y/N): .no Canopy (% open): .98

Were samples collected for water chemistry? (Y/N): .no Lab Sample # or ID (attach results): _

Field Measures: Temp (°C) 0 Dissolved Oxygen (mg/l) _ pH (S.U.) 0 Conductivity (µmhos/cm) _

Is the sampling reach representative of the stream (Y/N) .yes If not, please explain:

Additional comments/description of pollution impacts:

Ag Tile Outlet

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) _ Species observed (if known): _

Frogs or Tadpoles Observed? (Y/N) _ Species observed (if known): _

Salamanders Observed? (Y/N) _ Species observed (if known): _

Aquatic Macroinvertebrates Observed? (Y/N) _ 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

FLOW →

SEE PAGE 3

