

Letter of Notification for the Mifflin-St. Clair Avenue 138kV Transmission Line Adjustment Project



PUCO Case No. 25-0804-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code
Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

September 2, 2025

**LETTER OF NOTIFICATION FOR THE MIFFLIN-ST. CLAIR AVENUE 138KV TRANSMISSION LINE
ADJUSTMENT PROJECT**

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.

Mifflin-St. Clair Avenue 138kV Transmission Line Adjustment Project

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (the Company) provides the following information to the Ohio Power Siting Board (OPSB) in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

Provide the name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a letter of notification or construction notice application.

The Company proposes the Mifflin-Saint Clair Avenue 138kV Transmission Line Adjustment Project (the "Project"), in the City of Columbus in Clinton Township, Franklin County, Ohio. The Project involves relocating approximately 0.3 mile of single circuit 138kV transmission line and replacing wood monopoles with steel monopoles, along Joyce Avenue between Windsor Avenue and Dewey Avenue. The Project is required to accommodate a customer development in the area. The Project will be rebuilt within the existing right-of-way ("ROW"), but will require a supplemental easement. The location of the Project is shown on **Figure 1** and **Figure 2** in **Appendix A**.

The Project meets the requirements for a Letter of Notification (LON) as defined by Item 1(b) of Appendix A to Ohio Administrative Code Section 4906-1-01, Application Requirement Matrix for Electric Power Transmission Lines:

- (1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:
 - (b) Line(s) greater than 0.2 miles in length but not greater than two miles in length.

The Project has been assigned PUCO Case No. 25-0804-EL-BLN.

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B(2) Statement of Need

If the proposed project is an electric power transmission line or gas pipeline, the applicant provide a statement explaining the need for the proposed facility.

A customer is developing a property near the intersection of Joyce Avenue and Windsor Avenue. The customer's development requires improvements to Joyce Avenue, which the Company's Mifflin-Saint Clair Avenue 138kV Transmission Line parallels. As such, the customer requested that the Company relocate approximately 0.3 mile of the existing 138 kV line to allow for the proposed development in the area. The Company has agreed to relocate the facilities at the customer's expense.

Failure to move forward with the proposed Project will prevent the customer's ability to develop their property.

The Project will not be submitted through the PJM M-3 process because it will not modify the existing grid topology. The Project was included in the Company's 2025 Long-Term Forecast Report on page 139.

B(3) Project Location

Provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the project area.

The location of the Project in relation to existing transmission lines and substations is shown on **Figure 1**, in **Appendix A**.

B(4) Alternatives Considered

Describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility, including but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The Project is located on customer property. Based on the customer's proposed development, the proposed re-location of the Mifflin-Saint Clair Avenue 138kV Transmission Line is the most suitable location for the Project. Other alternatives would require impacting neighboring properties, as opposed to remaining on the customer's property. The Project is located on either undeveloped or disturbed areas associated with the customer development and will not require mechanized clearing due to absence of forested areas. The Project will not require impacts to any wetlands and streams due to absence of features within the Project area. The location of the Project also minimizes impacts to the community and the environment, while considering the engineering and construction needs of the customer. The Project represents the most suitable and appropriate solution for meeting the Company and customer's needs.

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B(5) Public Information Program

Describe its public information program to inform affected property owners and residents of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Company will inform affected property owners and tenants about this Project through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of Ohio Revised Code (“OAC”) Section 4906-6-08(A)(1-6). Further, the Company will mail a letter, via first class mail, to affected landowners, tenants, contiguous owners and any other landowner the Company may approach for an easement necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of OAC Section 4906-6-08(B). The Company maintains a website (<http://aeptransmission.com/ohio/>) which provides the public access to an electronic copy of this LON and the public notice for this LON. An electronic copy of the LON will be served to the public library in each political subdivision for this Project. The Company retains ROW land agents that discuss Project timelines, construction and restoration activities and convey information to affected owners and tenants throughout the Project

B(6) Construction Schedule

Provide an anticipated construction schedule and proposed in-service date of the project.

Construction of the Project is planned to begin in December 2025 with an anticipated in-service date of March 2026.

B(7) Area Map

Provide a map of at least 1:24,000 scale clearly depicting the facility and proposed limits of disturbance with clearly marked streets, roads, and highways, and an aerial image.

Figure 1, in Appendix A, identifies the location of the Project area on a United States Geological Survey 1:24,000 Southeast and Northeast Columbus quadrangle map. **Appendix A, Figure 2** displays the Project components on a 2024 aerial photograph.

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B(8) Property Agreements

Provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

A list of properties required for the Project are provided in **Table 1**, below.

Table 1 – Property Agreements

Property Parcel Number	Agreement Type	Easement or Option Obtained (Yes/No)
010-126232	Customer Owned	No

The easement form exhibit provided in **Appendix B** represents the minimum rights the Company would require in order to construct, operate, and maintain these facilities.

B(9) Technical Features

Describe the following information regarding the technical features of the project:

B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

Transmission Lines

The transmission line is estimated to include the following:

Voltage: 138kV
Conductors: Single Circuit, 636 KCM 37 AAC Orchid
Static Wire: 8-7 Stranded EHS Steel
Insulators: Polymer
ROW Width: 100 feet
Structure Type: Six (6) mono-pole steel; four (4) dead-end structures and two (2) tangent structures.

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

B(9)(b)(i) Calculated electric and magnetic field strength levels at one meter above ground under the lowest conductors and at the edge of the right-of-way for:

i) Calculated Electric and Magnetic Field Levels

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Three loading conditions were examined in **Table 2**, below: (1) Normal Maximum Loading, (2) Emergency Loading, and (3) Winter Normal Conductor Rating, consistent with the OPSB requirements. Normal Maximum Loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal (WN) conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. **It is not anticipated that this circuit of this line would operate at its WN rating in the foreseeable future.**

EMF levels were computed one meter above ground under the line and at the ROW edges (50/50 feet, left/right). 50 feet to left side of left tower and 50 away to right side of right tower.

Our results, calculated using BAP's CAFEP software are summarized below.

*EMF levels (left ROW edge/maximum/right ROW edge) computed one meter above ground at the point of minimum ground clearance, assuming balanced phase currents and 1.0 P.U. Voltages. ROW width is 50 feet (left tower) and 50 feet (right tower), respectively.

Table 2 - EMF Calculations

Cyrus-Parsons 138 kV Transmission Line					
Condition	Load (A)	Phasing Arrangements	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading [^]	79	A-B-C	47.4	(0.17/0.51/0.20)	(1/3/2)
(2) Emergency Line Loading ^{^^}	296	A-B-C	47.4	(0.17/0.51/0.20)	(5/11/6)
(3) Winter Conductor Rating ^{^^^}	1,138	A-B-C	45.2	(0.18/0.55/0.20)	(19/45/23)

[^]Peak line flow expected with all system facilities in service.

^{^^}Maximum flow during a critical system contingency

^{^^^}Maximum continuous flow that the line, including its terminal equipment, can withstand during winter conditions.

For power-frequency EMF, IEEE Standard C95.6TM-2002 recommends the following limits:

	General Public	Controlled Environment
Electric Field Limit (kV/m)	5.0	20.0
Magnetic Field Limit (mG)	9040	27,100

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The above EMF levels are well within the limits specified in IEEE Standard C95.6TM-2019. Those limits have been established to "prevent harmful effects in human beings exposed to electromagnetic fields in the frequency range of 0-300 GHz."

B(9)(b)(ii) Design Alternatives

The applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

Design alternatives were not considered due to EMF strength levels. Transmission lines, when energized, generate EMF. Laboratory studies have failed to establish a strong correlation between exposure to EMF and effects on human health. However, some people are concerned that EMF have impacts on human health. Due to these concerns, EMF associated with the new circuits was calculated and set forth in the table above. The EMF was computed in a manner to maximize the estimate, assuming the highest reasonable input values based on conditions along the proposed transmission line rebuild. Normal daily EMF levels would be less than these, which were calculated at maximum load conditions. Based on studies from the National Institutes of Health, the magnetic field (measured in milliGauss, or mG) associated with emergency loading at the highest EMF value for this transmission line is lower than those associated with normal household appliances like microwave ovens, electric shavers and hair dryers. For additional information regarding EMF, the National Institutes of Health has posted information on their website: <http://www.niehs.nih.gov/health/topics/agents/emf/>. Additionally, information on electric and magnetic fields is available on the Company's website: <https://www.aepohio.com/community/education/emf>. The information found on the Company's website describes the basics of electromagnetic field theory, scientific research activities, and EMF exposures encountered in everyday life. Similar material will be made available for those affected by the construction activities for this Project.

B(9)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the Project, which is comprised of applicable tangible and capital costs, is approximately \$1,700,000 using a Class 4 estimate. The costs for the Project will be recovered through total reimbursement by the customer.

B(10) Social and Ecological Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Land Use

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is located within the City of Columbus, Franklin County, Ohio. Field observations indicate the Project area is primarily comprised of developed or disturbed areas associated with customer development. The Project runs parallel to Joyce Avenue. To the east of Joyce Avenue, the area is

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primarily comprised of residential areas between Windsor Avenue and Dewey Avenue. Limited commercial development is located south of the Project area. No tree clearing is anticipated for the Project.

B(10)(b) Agricultural Land

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

The Project Area is highly urbanized and no agricultural land uses occur in the proximity.

Based on data received from the Franklin County Auditor's office on July 21, 2025 there are no agricultural district parcels within the Project area.

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

A cultural resource survey and report were conducted by the Company's consultant for the Project in Spring 2025. Correspondence from the State Historic Preservation Office ("SHPO") was received in April 2025, see **Appendix C**. The SHPO stated that that the Project will have no effect on historic properties and that no further coordination is needed unless new or additional historic properties are discovered during the implementation of this project.

B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A summary of anticipated permits and authorizations for the Project is provided in the **Table 3**, below. There are no other known local, state, or federal requirements that must be met prior to commencement of the Project.

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Table 3– Anticipated Permits

Permit/Authorization/Coordination	Agency	Date
Storm Water Pollution Prevention Plan	City of Columbus	Submitted July 2025
Notice Criteria	Federal Aviation Administration	Not required
Road Use Maintenance Agreement	Franklin County	Anticipated prior to construction
Archaeology/Architectural	Ohio Historic Preservation Office	Coordination complete 4/25/25
Threatened and Endangered Species	United States Fish and Wildlife Service	Consultation complete 3/17/2025
Threatened and Endangered Species	Ohio Department of Natural Resources	Consultation complete 4/8/2025

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

On March 12, 2025, coordination letters were submitted to the United State Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR) Ohio Natural Heritage Program (ONHP) and Division of Wildlife (DOW), seeking an environmental review of the Project for potential impacts to state and/or federally protected species. ODNR and USFWS provided responses on March 27, 2025 and April 8, 2025, respectively. Copies of the agencies' responses are presented in **Appendix C**.

Table 3, in Appendix D lists the federal and state threatened or endangered species in the Project area.

Based on the nature of the proposed Project activities and habitat characteristics of the surrounding vicinity, construction impacts to protected species are not anticipated.

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B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The Company's consultant conducted a wetland and stream delineation survey and a habitat survey in the Project study area on March 11, 2025 and prepared an Ecological Survey Report, which is provided in **Appendix D**. The survey of the Project area identified one pond and one upland drainage feature. The Pond (P-HLA-001) was classified as a stormwater retention basin and located within the northern end of the Project Survey Area. The upland drainage feature flows from south to north, running parallel to the study area before it exits through a culvert by the pond. The Project construction activities are not expected to result in discharge of fill in any of the delineated features and the pond will be avoided.

Based on a review of the Protected Areas Database of the United States as well as the Conservation Easement Database, there are no state or national parks, forests, wildlife areas or mapped conservation easements in the vicinity of the Project.

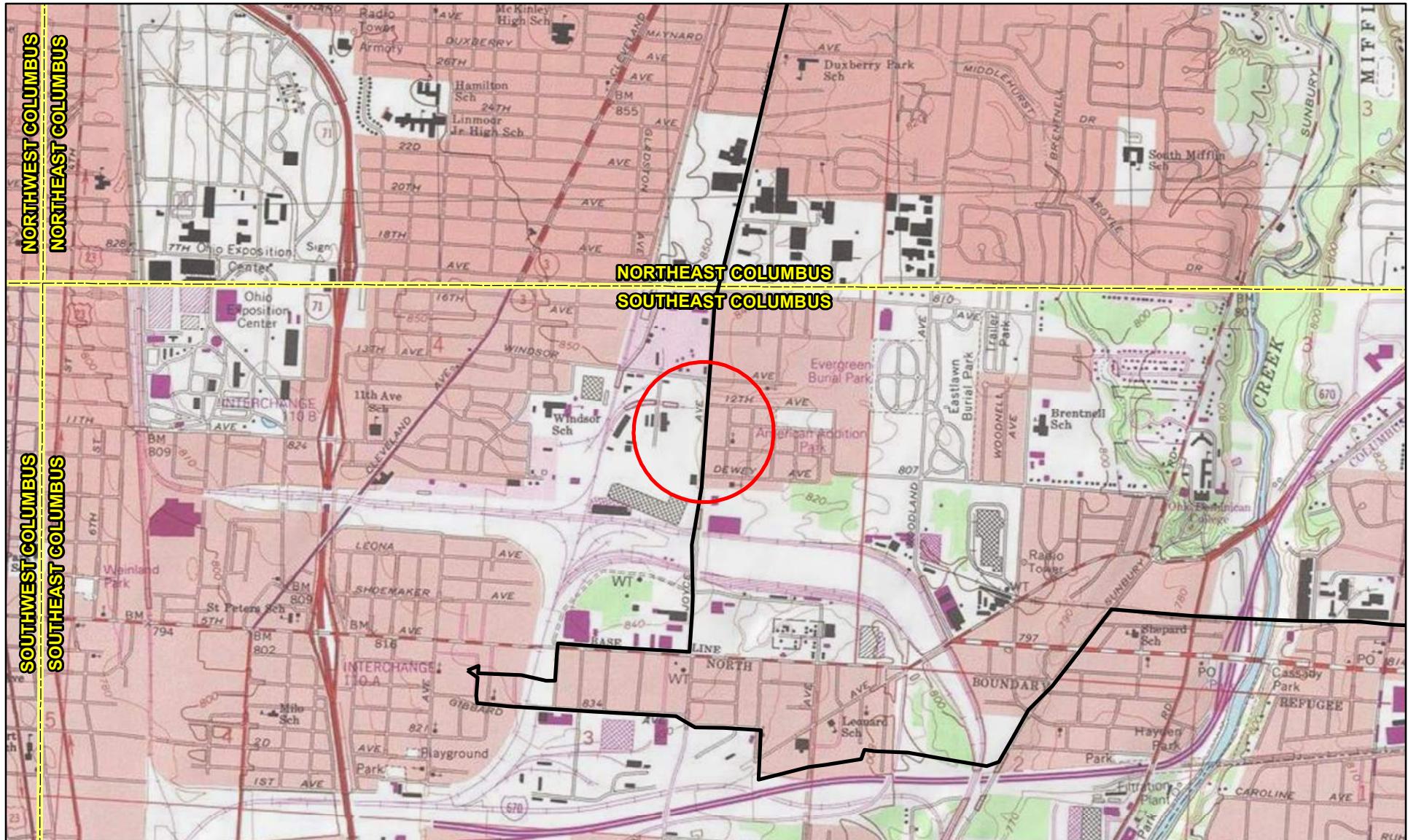
The FEMA Flood Insurance Rate Map ("FIRM") was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project Area (specifically, map number 39049Co327K). Based on this mapping, no regulated FEMA 100-year floodplains and/or floodways are located within the Project Survey Area.

B(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of the Company's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps



Project Area

Existing Transmission Line

USGS 7.5' Topographical Quadrangle

Data Sources: AEP (2022),
ESRI (2013), PowerMap (2010)
USGS 7.5' Topographic
Quadrangles: Northeast Columbus
and Southeast Columbus

Coordinate System:
State Plane Ohio South
NAD 83

August 13, 2025

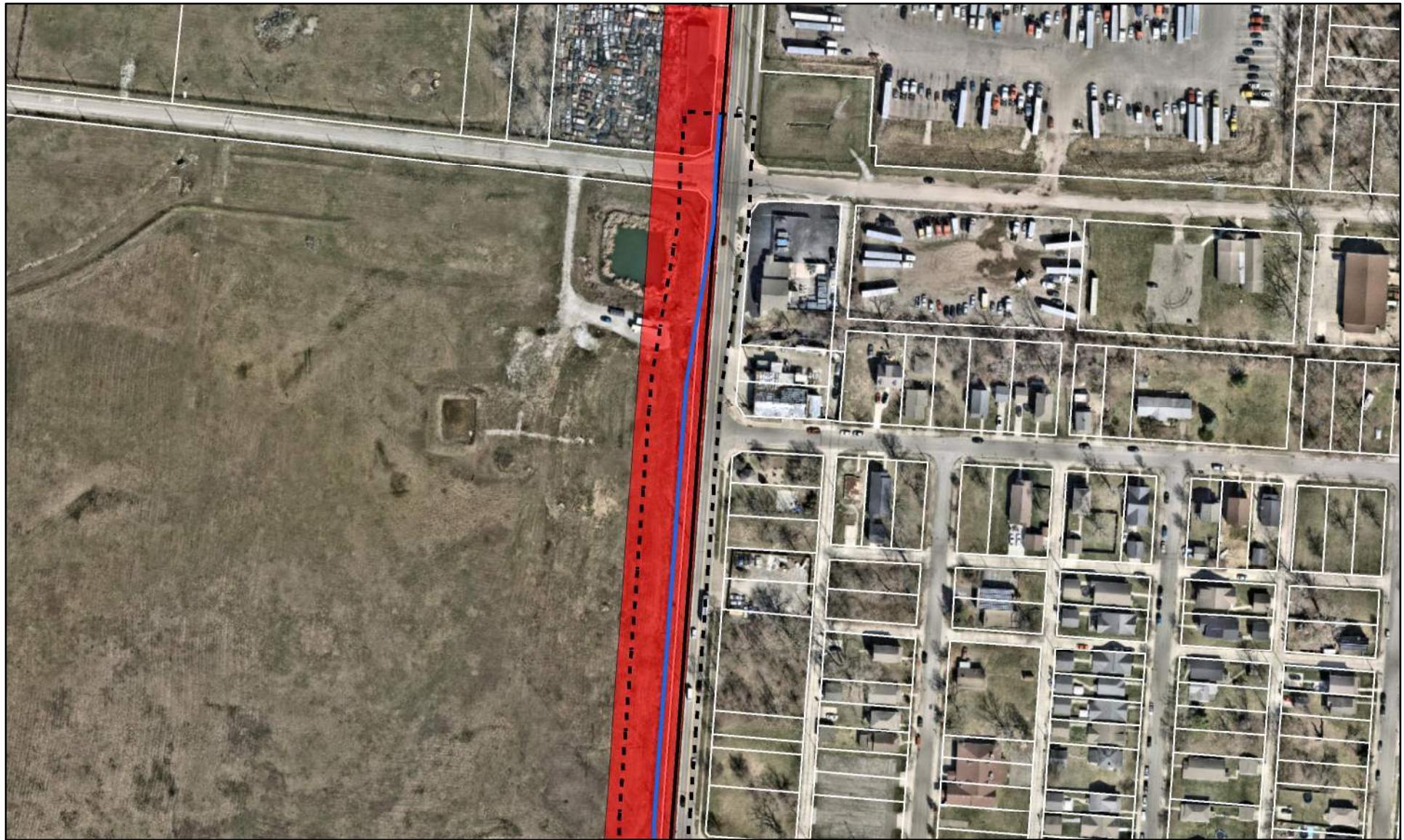


FIGURE 1
TOPOGRAPHIC OVERVIEW



Letter of Notification
Mifflin-St. Clair Avenue 138kV
Transmission Line Adjustment Project

0 1,000 2,000 3,000 4,000
Feet



- Proposed Centerline
- Existing Transmission Line
- Proposed 100' Right of Way
- Proposed Route
- Parcel Boundary

Data Sources: AEP (2025),
PowerMap (2010)
ESRI World Imagery (2024)

Coordinate System:
State Plane Ohio South
NAD 83

August 13, 2025

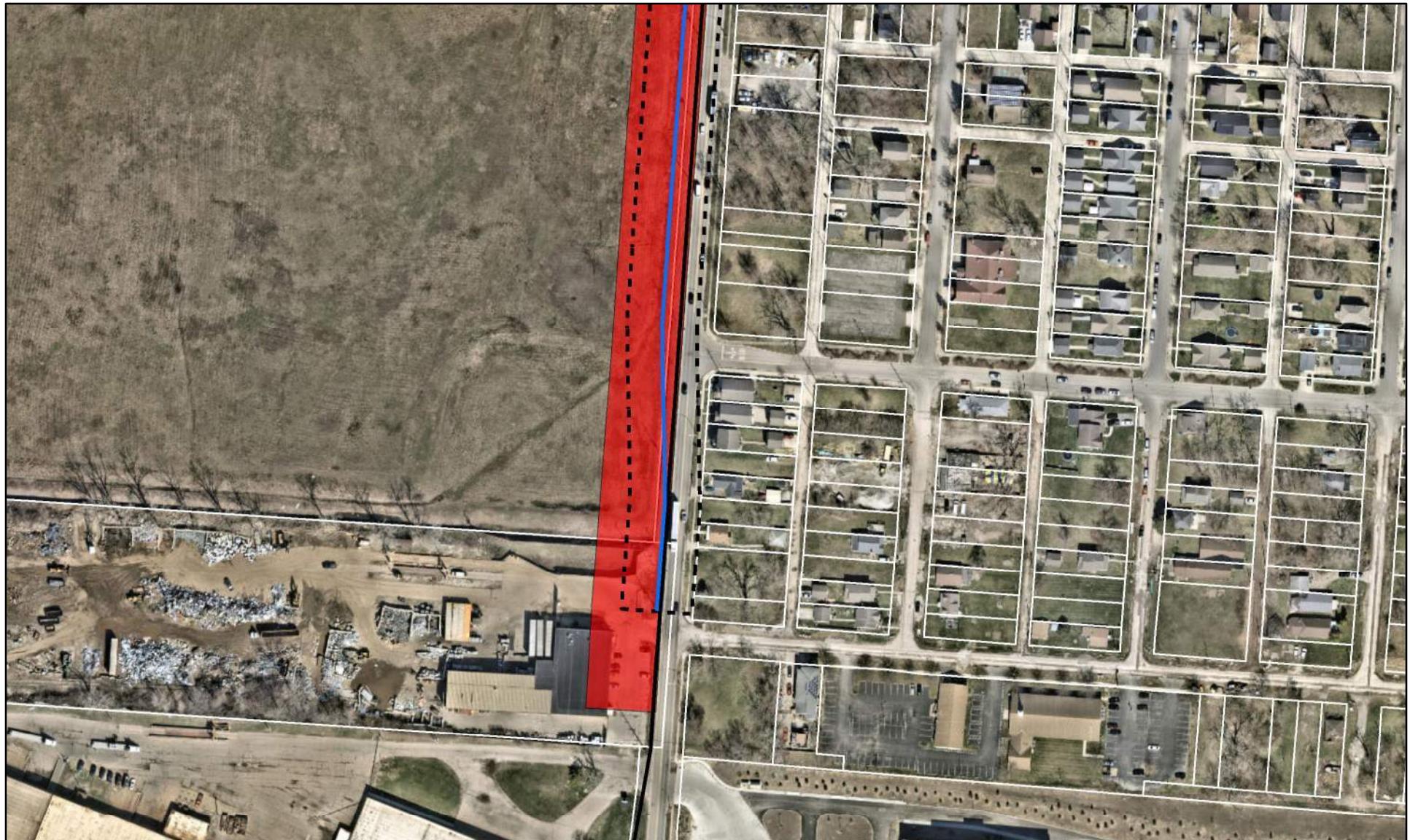


FIGURE 2 1
AERIAL MAP
Sheet 1 of 2



Letter of Notification
Mifflin-St. Clair Avenue 138kV
Transmission Line Adjustment Project

0 200 400
Feet



- Proposed Centerline
- Existing Transmission Line
- Proposed 100' Right of Way
- Proposed Route
- Parcel Boundary

Data Sources: AEP (2025),
PowerMap (2010)
ESRI World Imagery (2024)

Coordinate System:
State Plane Ohio South
NAD 83

August 13, 2025



FIGURE 2 2
AERIAL MAP
Sheet 2 of 2



Construction Notification
Mifflin-St. Clair Avenue 138kV
Transmission Line Adjustment Project

0 200 400
Feet

Appendix B Easement Form

Line Name: Stelzer - Saint Clair

Line No.: 130:0C783 **Easement No.:**

EASEMENT AND RIGHT OF WAY

On this ____ day of _____, 2025, in consideration of Ten and NO/100 Dollars (\$10.00), and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the covenants hereinafter set forth, **Central Columbus Commerce 71 Development, LLC, a Delaware limited liability company**, whose address is 3000 Turtle Creek Boulevard Dallas, TX 75219, ("Grantor"), whether one or more persons, hereby grants, sells, conveys, and warrants to **Ohio Power Company**, a(n) Ohio corporation, a unit of American Electric Power, whose principal business address is 1 Riverside Plaza, Columbus, Ohio 43215, ("AEP") and its successors, assigns, lessees and tenants a permanent easement and right of way ("Easement"), for electric transmission, distribution, and communication lines and appurtenant equipment and fixtures, being, in, on, over, under, through and across the following described lands of the Grantor, situated in the Quarter Township 4, Township 1 North, Range 18 West, United States Military Lands, State of Ohio, Franklin County.

Grantor claims title by Limited Warranty Deed, Instrument Number 202411040115688, recorded on 11/04/2024; in the Franklin County Recorder's Office.

Auditor/Key/Tax Number: 010-126232-00

The Easement Area is more fully described and depicted on Exhibit "A", a copy of which is attached hereto and made a part hereof ("Easement Area").

GRANTOR FURTHER GRANTS AEP THE FOLLOWING RIGHTS:

The right, now or in the future, to construct, reconstruct, operate, maintain, alter, improve, extend, inspect and patrol (by ground or air), protect, repair, remove, replace, upgrade and relocate within the Easement Area, poles, towers, and structures, made of wood, metal, concrete or other materials, and crossarms, guys, anchors, grounding systems, and all other appurtenant equipment and fixtures, and to string conductors, wires and cables; together with the right to add to said facilities from time to time, and the right to do anything necessary, useful or convenient for the enjoyment of the Easement herein granted.

The right, in AEP's discretion, now or in the future, to cut down, trim, remove, and otherwise control, using herbicides or tree growth regulators or other means, any and all trees, overhanging branches, vegetation or brush situated within the Easement Area. AEP shall also have the right to cut down, trim or remove trees situated on lands of Grantor which adjoin the Easement Area when in the opinion of AEP those trees may endanger the safety of, or interfere with the construction, operation or maintenance of AEP's facilities or ingress or egress to, from or along the Easement Area.

The right of unobstructed ingress and egress, at any and all times, over, across and along and upon the Easement Area, and across the adjoining lands of Grantor as may be necessary for access to and from the Easement Area for the above referenced purposes.

THIS GRANT IS SUBJECT TO THE FOLLOWING CONDITIONS:

The Grantor reserves the right to cultivate annual crops, pasture, construct fences (provided gates are installed that adequately provide AEP the access rights conveyed herein) and roads or otherwise use the lands encumbered by this Easement in any way not inconsistent with the rights herein granted. In no event, however, shall Grantor, its heirs, successors, and assigns plant or cultivate any trees or place, construct, install, erect or permit any temporary or permanent building, structure, improvement or obstruction including but not limited to, storage tanks, billboards, signs, sheds, dumpsters, light poles, water impoundments, above ground irrigation systems, swimming pools or wells, or permit any alteration of the ground elevation, over, or within the Easement Area. AEP may, at Grantor's cost, remove any structure or obstruction if placed within the Easement Area, and may re-grade any alterations of the ground elevation within the Easement Area.

AEP agrees to repair or pay the Grantor for actual damages sustained by Grantor to crops, fences, gates, irrigation and drainage systems, drives, or lawns that are permitted herein, when such damages arise out of AEP's exercise of the rights herein granted.

The failure of AEP to exercise any of the rights granted herein, or the removal of any facilities from the Easement, shall not be deemed to constitute an abandonment or waiver of the rights granted herein.

This instrument contains the complete agreement, expressed or implied between the parties herein and shall inure to the benefit of and be binding on their respective successors, assigns, heirs, executors, administrators, lessees, tenants, and licensees.

This Easement may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

Any remaining space on this page left intentionally blank. See next page for signatures.

IN WITNESS WHEREOF, the Grantor has executed this Easement effective the day, month and year first above written.

GRANTOR

Central Columbus Commerce 71 Development
LLC, a Delaware limited liability company

Signature: _____

By: _____

Title:

State of §
County of §

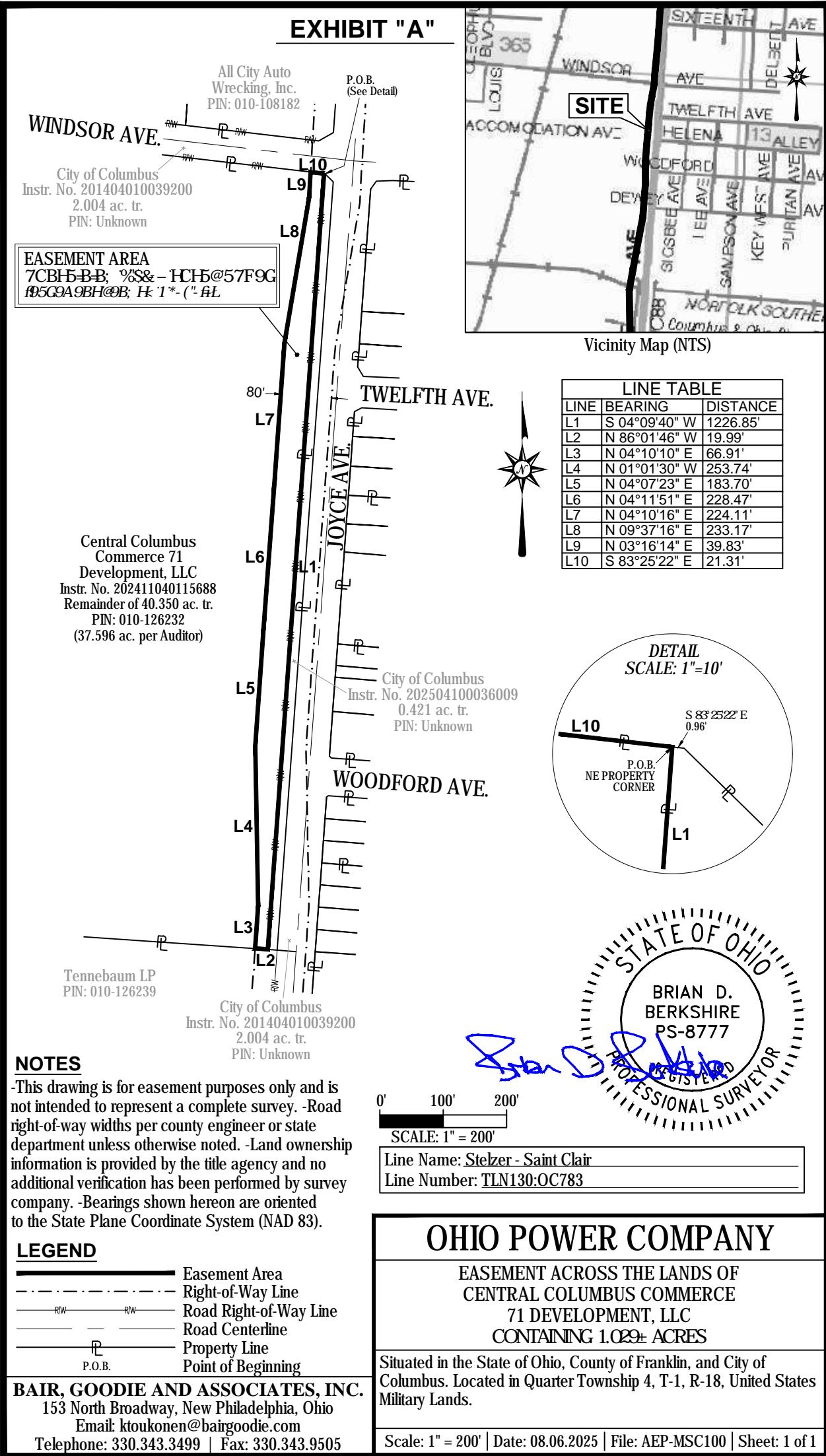
The foregoing instrument was acknowledged before me this _____ day of _____, 2025, by _____ as the _____ of Central Columbus Commerce 71 Development LLC, a Delaware limited liability company, on behalf of said limited liability company.

Notary Public
Print Name: _____
My Commission Expires: _____

This instrument prepared by Marland L. Turner, Senior Counsel - Real Estate, American Electric Power Service Corporation, 1 Riverside Plaza, Columbus, OH 43215 for and on behalf of Ohio Power Company, a unit of American Electric Power.

When recorded return to: American Electric Power - Transmission Right of Way, 8600 Smiths Mill Road, New Albany, OH 43054.

EXHIBIT "A"



Appendix C Agency Correspondence



In reply, refer to
2025-FRA-64548

April 25, 2025

Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212
rweller@wellererm.com

RE: Mifflin – Saint Clair 138kV Relocation Project, City of Columbus, Franklin County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received March 27, 2025, regarding the proposed Mifflin – Saint Clair 138kV Relocation Project located in the City of Columbus, Franklin 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 and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Cultural Resource Management Investigations for the .8 km (.5 mi) Mifflin – Saint Clair 138kV Relocation Project in the City of Columbus, Franklin County, Ohio* by Ryan J. Weller and Scott McIntosh (Weller & Associates, Inc., 2025). A literature review, visual inspection, and photographic documentation were completed as part of the investigations. The project corridor is located within built, urban conditions which were confirmed to be extensively disturbed. There were no previously documented archaeological sites located within the project corridor and no new archaeological sites were identified during this survey. No further archaeological survey is necessary. The field survey identified a total of twenty-eight (28) architectural resources 50 years of age or older in the architectural Area of Potential Effect (APE). It is Weller's recommendation that none of these resources are eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with Weller's recommendations of eligibility.

Based on the information provided, it is the SHPO's opinion that the project, as proposed, will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during the implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me by e-mail at cgullett@ohiohistory.org, or Ms. Abigail Rosenow at arosenow@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Catherine Gullett".

Catherine Gullett, Project Reviews Coordinator - Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1108183



Office of Real Estate & Land Management

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

April 8, 2025

Jesse Killosky
AECOM
707 Grant Street, 5th Floor
Pittsburgh, Pennsylvania 15219

Re: 25-0400 - Mifflin-Saint Clair 138kV Relocation

Project: The proposed project involves the relocation of portion of the Mifflin-Saint Clair 138 kV circuit to allow for the installation of a left turn lane along Joyce Avenue.

Location: The proposed project is located in Clinton Township, Franklin 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 project is within the vicinity of records for the little brown bat (*Myotis lucifugus*), a state endangered species. Because presence of a state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute

presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally 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 bat species 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. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible.

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

clubshell (*Pleurobema clava*)
rayed bean (*Villosa fabalis*)
northern riffleshell (*Epioblasma rangiana*)
snuffbox (*Epioblasma triquetra*)
purple cat's paw (*Epioblasma obliquata*)

Federally Threatened

rabbitsfoot (*Theliderma cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)
pocketbook (*Lampsilis ovata*)
long solid (*Fusconaia subrotunda*)
washboard (*Megalonaia nervosa*)
Ohio pigtoe (*Pleurobema cordatum*)

State Threatened

pondhorn (*Uniomerus tetralasmus*)
Salamander Mussel (*Simpsonaias ambiguia*)

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

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

State Endangered

goldeye (*Hiodon alosoides*)
shortnose gar (*Lepisosteus platostomus*)
Iowa darter (*Etheostoma exile*)
spotted darter (*Etheostoma maculatum*)
northern brook lamprey (*Ichthyomyzon fassor*)
tonguetied minnow (*Exoglossum laurae*)
popeye shiner (*Notropis ariommus*)

State Threatened

lake chubsucker (*Erimyzon suetta*)
paddlefish (*Polyodon spathula*)

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

The project is within the range of the sandhill crane (*Antigone canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds, they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on 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.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

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.



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



August 13, 2025

Project Code: 2025-0065732

Dear Jesse Killosky:

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,



Erin Knoll
Field Office Supervisor

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

Appendix D Ecological Survey Report

AEP MIFFLIN - SAINT CLAIR 138 KV RELOCATION PROJECT

FRANKLIN COUNTY, OHIO

ECOLOGICAL REPORT

Prepared for:

American Electric Power Ohio Transmission Company
8600 Smiths Mill Road
New Albany, Ohio 43054



Prepared by:



525 Vine Street, Suite 1900
Cincinnati, Ohio 45202

Project #: 60751757

April 2025

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APPENDIX A	Desktop Assessment for Winter Bat Habitat
APPENDIX B	Delineated Upland Features Photographs and Data Form
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1.0 INTRODUCTION

American Electric Power Ohio Transmission Company (AEP Ohio Transco) is proposing to accommodate a customer request to relocate a portion of the Mifflin-Saint Clair 138 kV circuit to allow for the installation of a left turn lane along Joyce Avenue. To meet the customer's needs, AEP will relocate approximately 0.2 miles of transmission line from Structure 133 to 138. The Project is located on the Southeast Columbus, Ohio, U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle, as displayed on the Project Location Map (**Figure 1**).

The purpose of the field survey was to assess the presence of wetlands and possible “waters of the United States” (WOTUS) that occur within the proposed Project Survey Area. Secondarily, land uses were also recorded to classify and characterize potential habitat for threatened, and endangered species. This report will be used to assist AEP Ohio Transco's efforts to identify potential WOTUS and threatened and endangered species habitat present within the proposed Project Survey Area to avoid or minimize impacts during construction activities.

2.0 METHODOLOGY

The field survey was completed for a 100-foot-wide corridor along the proposed transmission line centerline, totaling approximately 3.97 acres of Project Survey Area. Prior to conducting field surveys, digital United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data, United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data, USGS National Hydrography Dataset (NHD), Federal Emergency Management Agency (FEMA) 100-year floodplain data, and USGS 7.5-minute topographic maps were reviewed to identify the occurrence and location of potential wetland areas and/or streams.

Field survey activities included recording the physical boundaries of observed water features using sub-meter capable EOS Arrow Global Positioning System (GPS) units in conjunction with the ArcGIS Field Maps application on Samsung tablets. The GPS data was imported into ArcMap Geographic Information System (GIS) software, where the data was reviewed, edited for accuracy, and compiled in a format suitable for transfer and use by AEP Ohio Transco. Water features were delineated and assessed based upon the appropriate procedures detailed below. Land uses observed within the Project Survey Area were assigned a general classification based upon the principal land characteristics and vegetative cover of the location.

2.1 WETLAND DELINEATION

The Project Survey Area was evaluated according to the procedures outlined in the United States Army Corps of Engineers (USACE) *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE, 2010).

During field survey activities AECOM utilized the routine on-site delineation method described in the 1987 *Manual and Regional Supplement* that consisted of a pedestrian site reconnaissance, including identifying the vegetative communities, soils identification, a geomorphologic assessment of hydrology, and notation of disturbance. If a wetland was identified, AECOM completed a USACE Wetland Determination Data Form (USACE Data Form) within each unique wetland habitat to serve as a representative of the wetland hydrology, vegetative community, and soil characteristics. Adjacent to each wetland complex, AECOM completed an additional USACE Data Form as a representative of the upland community.

2.1.1 WETLAND CLASSIFICATION

Wetlands identified in the field were classified based on the naming convention found in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al.*, 1979). The unique wetland habitats were classified as palustrine emergent (PEM), palustrine forested (PFO), palustrine unconsolidated bottom (PUB), palustrine scrub-shrub (PSS), or other classifications for some wetlands. Multiple Cowardin classifications may be present where more than one classification's vegetation is dominant (vegetation type covers 30 percent or more of the substrate). Where multiple Cowardin classifications are present, the Cowardin classification of the plants that constitute the uppermost layer of vegetation having 30% or greater coverage is used for the classification.

2.1.2 WETLAND ASSESSMENT

Each delineated wetland was assessed following the Ohio Environmental Protection Agency (OEPA) *Ohio Rapid Assessment Method for Wetlands v. 5.0* (ORAM) (Mack, 2001). Wetland assessments utilized the 10-page ORAM form, providing a final Category rating for each wetland.

2.2 STREAM ASSESSMENT

Streams were identified by the presence of a defined bed and bank, and evidence of an ordinary high-water mark (OHWM). The USACE defines the OHWM as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE, 2005).

2.2.1 OEPA PRIMARY HEADWATER HABITAT ASSESSMENT

Stream assessments were conducted using the methods described in the OEPA's *Methods for Assessing Habitat in Flowing Waters: Using OEPA's Qualitative Habitat Evaluation Index (QHEI)* (Rankin, 2006) and in the OEPA's *Field Methods for Evaluating Primary Headwater Streams in Ohio* (OEPA, 2020). Streams associated with watershed area less than or equal to 1.0 square mile (259 hectares), and a maximum depth of water pools equal to or less than 15.75 inches were evaluated utilizing the Headwater Habitat Evaluation

Index (HHEI) methodology and all other streams assessed using the QHEI methodology. Flow regime (ephemeral, intermittent, perennial) was determined by the appropriate stream assessment score per OEPA manuals (OEPA, 2020) and by AECOM's professional opinion.

Streams assessed in the Project Survey Area were reviewed for existing OEPA Aquatic Life Use Designations per OEPA's Water Quality Standards (OAC Chapter 3745-1). Those without an existing use designation were assigned a provisional aquatic life use designation based upon habitat assessment results (Rankin, 1989; OEPA, 2020).

2.2.2 OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

The OEPA has designated each watershed in the state on based on whether it may be Eligible for coverage under the OEPA's 401 Water Quality Certification (WQC) for Nationwide Permits (OEPA, 2024). Mapping provided by the OEPA illustrates the eligibility of streams in the area to fall under a Nationwide Permit for 401 certification or if an individual state WQC needs to be applied for. Impacts to streams within each watershed would then have eligibility for 401 WQC determined by the watershed category. The three categories are defined as:

Eligible: Streams within the watershed are eligible for coverage under the OEPA's water quality certification for the Nationwide Permits if all other general and regional special terms and conditions are met.

Ineligible: Projects affecting high quality streams and undesignated streams draining directly to high quality streams, as represented in the map, must undergo an individual 401 Water Quality Certification review process.

Possibly Eligible: Additional field screening procedures are required for streams in the watershed to determine appropriate eligibility. Projects affecting undesignated streams within those HUC12 watersheds that do not directly but eventually drain into high quality waters, might be eligible for coverage under the OEPA's 401 Water Quality Certification for Nationwide Permits depending on the results of a field screening assessment. The procedures for determining individual stream eligibility in this scenario are specified in **Appendix C** "Stream Eligibility Determination Process" of the OEPA Ohio State Water Quality Certification of the 2017 Nationwide Permit Reauthorization (OEPA, 2017).

2.2.3 UPLAND DRAINAGE FEATURES

An upland drainage feature (UDF) is a non-jurisdictional drainage that does not meet the criteria of either a jurisdictional stream or a wetland. A UDF generally lacks an OHWM (USACE, 2005) and are equivalent to a swale or an erosional feature as described by the USACE: "generally shallow features in the landscape that may convey water across upland areas during and following storm events. Swales usually occur on

nearly flat slopes and typically have grass or other low-lying vegetation throughout the swale" (USACE, 2005).

A roadside ditch may also be documented as a UDF if it meets the "not potentially jurisdictional" characterization as described in the Office of Environmental Services *Roadway Ditch Characterization Flowchart* (Ohio Department of Transportation, 2014). This would include a ditch that originates entirely within the roadway right-of-way, has a seasonal flow regime, was not constructed to drain a wetland, and does not have hydrophytic vegetation extending more than an insignificant amount beyond its original configuration.

In addition, UDF's (including swales, ditches, and other erosional features) are generally not WOTUS except in certain circumstances, such as relocated streams.

2.3 RARE, THREATENED, AND ENDANGERED SPECIES

AECOM conducted a threatened and endangered species review and general field habitat surveys within the Project Survey Area. AECOM submitted requests to the Ohio Department of Natural Resources (ODNR) Office of Real Estate – Environmental Review Section and the USFWS Ohio Ecological Services Field Office soliciting comments on the proposed Project. Agency-identified species of concern and available species-specific information was reviewed to identify the various habitat types that listed species are known to inhabit.

AECOM field ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys as part of assessing potential impacts to threatened and endangered species. Land uses within the Project Survey Area were assigned a general classification based upon the principal land characteristics and vegetative cover as observed during the field surveys.

AECOM conducted a desktop assessment of the Project Survey Area and a quarter-mile buffer around it to identify potentially occurring winter bat hibernaculum that may be present near the Project which is in **Appendix A**. This assessment was conducted by reviewing data on mining activity and karst geology from the ODNR Division of Mineral Resources and USGS websites.

3.0 RESULTS

On March 11, 2025, AECOM ecologists walked the Project Survey Area to conduct the wetland delineation, stream assessment and habitat survey. During the delineation, AECOM identified one pond and one upland drainage feature within the Project Survey Area. One representative upland data form to characterize the Project site, as well as photo documentation, are provided as **Appendix B**.

3.1 WETLAND DELINEATION

3.1.1 PRELIMINARY SOILS EVALUATION

According to the USDA NRCS Web Soil Survey, two soil map units are mapped within the Project Survey Area (USDA NRCS, 2025a and 2025b). Of these, neither were identified as a hydric soil. Soils indicated as hydric inclusions are not predominately hydric soils and hydric soils are more likely to be found in topographic settings. **Table 1** below provides a detailed overview of all soil series and soil map units present within the Project Survey Area. Soil map units located in the Project Survey Area and vicinity are shown on **Figure 2**.

TABLE 1 - SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE PROJECT SURVEY AREA

Soil Series	Map Unit Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Bennington	BfA	Bennington-Urban land complex, 0 to 2 percent slopes	End moraines, ground moraines	Yes	Pewamo 10%
	BfB	Bennington-Urban land complex, 0 to 6 percent slopes	End moraines, ground moraines	Yes	Pewamo 5%

3.1.2 NATIONAL WETLANDS INVENTORY MAP REVIEW

According to NWI data covering the Project location, the Project Survey Area contains one NWI wetland, identified in the field as P-HLA-001. The locations of the NWI mapped wetlands in the Project vicinity are shown on **Figure 2**.

3.1.3 DELINEATED WETLANDS

During the field survey, AECOM did not identify any wetland features within the Project Survey Area, but one upland point was taken to confirm whether there was a wetland (**Figure 3**). The criteria for a wetland was not present at this point. The data form and photographs can be found in **Appendix B**.

3.2 STREAM DELINEATION

During the field survey, AECOM did not identify any streams within the Project Survey Area (**Figure 3**).

3.2.1 OEPA STREAM ELIGIBILITY

The Project occurs within one watershed, Bliss Run-Alum Creek (HUC-12 050600011602), that is designated as 401 WQC Eligible. OEPA stream eligibility mapping for the Project vicinity is provided on **Figure 4**.

3.3 FEMA 100 YEAR FLOODPLAINS

No regulated FEMA 100-year floodplains and/or floodways are located within the Project Survey Area (FEMA, 2008).

3.4 PONDS

During the field survey, AECOM identified one pond (P-HLA-001), a stormwater retention basin, within the northern end of the Project Survey Area (**Figure 3**).

3.5 UPLAND DRAINAGE FEATURES

During the field survey, AECOM identified one upland drainage feature within the Project Survey Area. It flows from south to north, running parallel to the study area before it exits through a culvert by the pond (**Figure 3**). Photographs can be found in **Appendix C**.

3.6 VEGETATIVE COMMUNITIES

AECOM ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys. As described in **Table 2**, below, the Project Survey Area contains landscaped, scrub/shrub, stream/wetland, and urban areas. Habitat descriptions applicable to the Project are provided below. Vegetative communities are depicted visually on aerial photography in **Figure 5**. Representative photographs of the vegetative communities in the Project Survey Area are provided as **Appendix D**.

TABLE 2 - VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA

Vegetative Community	Description	Approximate Acreage Within the Project Survey Area	Approximate Percentage Within the Project Survey Area
Landscaped	Landscaped areas are frequently mowed and maintained, comprised of grasses and forbs.	1.58	40%
Old Field	Dominated by herbaceous plants generally within or along edges of ROW where mowing is less frequent. Dominant species includes goldenrod (<i>Solidago canadensis</i>), brome grass (<i>Bromus</i> sp.), and aster (<i>Sympyotrichum</i> sp.)	1.22	31%
Pond	One stormwater retention basin.	0.11	3%
Urban	Private or public properties with maintained lawns and buildings.	1.06	26%
Totals:		3.97	100%

3.7 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

On March 12, 2025, coordination letters were sent to USFWS and the ODNR Ohio Natural Heritage Program (ONHP) and Division of Wildlife (DOW) seeking an environmental review for potential impacts to threatened and endangered species in the Project Survey Area.

Responses were received from the USFWS on March 27, 2025, and from the ODNR on April 8, 2025. According to a response letter received from the USFWS, two federally endangered and one federally proposed endangered bat species were identified within range of the Project Survey Area. Regarding state threatened and endangered species that may occur within the Project vicinity, twenty-seven species were listed by the ODNR. Correspondence letters from the USFWS and ODNR for Mifflin-Saint Clair 138 kV Relocation Project are included as **Appendix E**.

Table 3 provides a list of species of concern identified by the agencies as potentially occurring within the vicinity of the Project. Photographs of the habitat within the Project Survey Area are provided as **Appendix D**.

TABLE 3 – ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Typical Habitat	Habitat Observed	Avoidance Dates	Agency Comments	Potential Impacts
Mammals							
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Endangered	<u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. <u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	<u>Summer habitat</u> Within the Project Survey Area, the existing land use is composed of open maintained lawn or urban areas that lack the presence of forested or suitable bat roosting trees. <u>Hibernaculum(a)</u> No mine openings and/or known caves are located within 0.25 miles of Project Area and USFWS did not identify known hibernacula within 5-miles of the Project. However, one surface mine operation was identified within the Project Area, which does not provide suitable hibernacula for the species. Field evaluations did not identify any potential hibernaculum(a) within the Project Area (2024 Joint Guidance)*.	April 1 – September 30	<u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). <u>Hibernaculum(a)</u> The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project Area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2024 Joint Guidance)*. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	<u>Summer habitat</u> No impact to listed bat species or their habitat is anticipated due to absence of tree clearing activities. If tree clearing is required, it should be completed between October 1 and March 31. <u>Hibernaculum(a)</u> No impacts to winter hibernacula were identified due to absence of caves, mines, or portals within 0.25-miles of the Project.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	Endangered	<u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. <u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	<u>Summer habitat</u> Within the Project Survey Area, the existing land use is composed of open maintained lawn or urban areas that lack the presence of forested or suitable bat roosting trees. <u>Hibernaculum(a)</u> No mine openings and/or known caves are located within 0.25 miles of Project Area and USFWS did not identify known hibernacula within 5-miles of the Project. However, one surface mine operation was identified within the Project Area, which does not provide suitable hibernacula for the species. Field evaluations did not identify any potential hibernaculum(a) within the Project Area (2024 Joint Guidance)*.	April 1 – September 30	<u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). <u>Hibernaculum(a)</u> The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project Area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2024 Joint Guidance)*. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	<u>Summer habitat</u> No impact to listed bat species or their habitat is anticipated due to absence of tree clearing activities. If tree clearing is required, it should be completed between October 1 and March 31. <u>Hibernaculum(a)</u> No impacts to winter hibernacula were identified due to absence of caves, mines, or portals within 0.25-miles of the Project.
Tricolored bat (<i>Perimyotis subflavus</i>)	Endangered	Proposed	<u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. <u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	<u>Summer habitat</u> Within the Project Survey Area, the existing land use is composed of open maintained lawn or urban areas that lack the presence of forested or suitable bat roosting trees. <u>Hibernaculum(a)</u> No mine openings and/or known caves are located within 0.25 miles of Project Area and USFWS did not identify known hibernacula within 5-miles of the Project. However, one surface mine operation was identified within the Project Area, which does not provide suitable hibernacula for the species. Field evaluations did not identify any potential hibernaculum(a) within the Project Area (2024 Joint Guidance)*.	April 1 – September 30	<u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). <u>Hibernaculum(a)</u> The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project Area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2024 Joint Guidance)*. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	<u>Summer habitat</u> No impact to listed bat species or their habitat is anticipated due to absence of tree clearing activities. If tree clearing is required, it should be completed between October 1 and March 31. <u>Hibernaculum(a)</u> No impacts to winter hibernacula were identified due to absence of caves, mines, or portals within 0.25-miles of the Project.

TABLE 3 – ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Typical Habitat	Habitat Observed	Avoidance Dates	Agency Comments	Potential Impacts
Little Brown Bat (<i>Myotis lucifugus</i>)	Endangered	NA	<u>Summer habitat</u> During spring/summer, this bat species roost in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. <u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	<u>Summer habitat</u> Within the Project Survey Area, trees were identified along edge of existing right-of-way that may provide suitable habitat for the species. <u>Hibernaculum(a)</u> No mine openings and/or known caves are located within 0.25 miles of Project Area and USFWS did not identify known hibernacula within 5-miles of the Project. Field evaluations did not identify any potential hibernaculum(a) within the Project Area (2024 Joint Guidance)*.	April 1 – September 30	<u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). Additionally, the ODNR indicated that there is a known presence of this species within the Project Area and summer surveys would not constitute a presence or absence of this species. <u>Hibernaculum(a)</u> The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project Area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2024 Joint Guidance)*. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	<u>Summer habitat</u> No impact to listed bat species or their habitat is anticipated due to absence of tree clearing activities. If tree clearing is required, it should be completed between October 1 and March 15. Additional summer surveys would not constitute presence/absence within the Project Area for the Tricolored bat. <u>Hibernaculum(a)</u> No impacts to winter hibernacula were identified due to absence of caves, mines, or portals within 0.25-miles of the Project.
Fish							
Goldeye (<i>Hiodon alosoides</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Iowa darter (<i>Etheostoma exile</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Lake chubsucker (<i>Erimyzon suetta</i>)	Threatened	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Northern brook lamprey (<i>Ichthyomyzon fossor</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Paddlefish (<i>Polyodon spathula</i>)	Threatened	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Popeye shiner (<i>Notropis ariommus</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Shortnose gar (<i>Lepisosteus platostomus</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Spotted darter (<i>Etheostoma maculatum</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.
Tonguetied minnow (<i>Exoglossum laurae</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	In-Water Work March 15 – June 30	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 this or other aquatic species.	No in-water work is proposed; therefore, no further coordination required.

TABLE 3 – ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Typical Habitat	Habitat Observed	Avoidance Dates	Agency Comments	Potential Impacts
Mussels							
Clubshell (<i>Pleurobema clava</i>)	Endangered	Endangered	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Elephant-ear (<i>Elliptio crassidens crassidens</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Long solid (<i>Fusconaia maculata maculata</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>)	Endangered	Endangered	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Ohio pigtoe (<i>Pleurobema cordatum</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Pocketbook (<i>Lampsilis ovata</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Pondhorn (<i>Unioemerus tetralasmus</i>)	Threatened	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Purple cat's paw (<i>Epioblasma o. obliquata</i>)	Endangered	Endangered	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Rabbitsfoot (<i>Quadrula cylindrica cylindrica</i>)	Threatened	Threatened	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Rayed bean (<i>Villosa fabalis</i>)	Endangered	Endangered	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Salamander mussel (<i>Simpsoniaias ambigua</i>)	Threatened	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Snuffbox (<i>Epioblasma triquetra</i>)	Endangered	Endangered	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Washboard (<i>Megalonaiaas nervosa</i>)	Endangered	None	Perennial Streams	Project Survey Area does not contain any Perennial Streams	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No in-water work is proposed; therefore, no further coordination required.
Bird							
Sandhill Crane (<i>Antigone canadensis</i>)	Threatened	None	This species utilizes areas of large, expansive wetlands, wet meadows, shallow marshes, or bogs.	No potentially suitable habitat was observed for this species	N/A	ODNR stated that if grassland, prairie, or wetland habitat will be impacted, construction should be avoided in this habitat during the species' nesting period April 1 through July 31.	No potentially suitable habitat was observed with the Project Survey Area

*2024 Joint Guidance – Refers to the 2024 ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing, a copy of the guidance is provided within **Appendix F** of this report.

Protected Species Agency Summary –

Based on general observations during the ecological field survey, no forested areas were identified within the Project Survey Area and tree clearing is not anticipated to be required for this Project. If tree clearing were to become part of the Project scope of work, the ODNR and the USFWS recommends implementations of seasonal tree clearing between October 1 and March 31 to avoid adverse effects to the Indiana bat, northern long-eared bat, little brown bat and tricolored bat. The ODNR confirmed a known presence of the little brown bat within the vicinity of the Project Survey Area. If trees must be cut during the summer months, the ODNR recommends that a mist net survey could be completed for the Indiana bat, tricolored bat, and northern long-eared bat between June 1 and August 15. However, additional summer surveys would not constitute presence/absence within the Project Survey Area for the little brown bat. If summer tree clearing is needed, additional coordination would be completed with ODNR and the USFWS.

AECOM completed a desktop review for potential hibernaculum in accordance with the 2024 Ohio ODNR DOW and the USFWS Joint Guidance for Bat Surveys and Tree Clearing within 0.25 miles of the Project area and no caves, mines, and/or karst features were identified. As per ODNR and USFWS guidance, further coordination regarding potential hibernaculum is only necessary if the habitat assessment finds potential habitat within 0.25 miles of the Project Survey Area. Therefore, no further coordination is necessary with either the ODNR and/or the USFWS regarding the listed bat species. Results of the desktop habitat assessment are included in **Appendix A**.

No impacts are anticipated to occur to any of the fish or mussel species listed in **Table 3**, as no in-water work is proposed as part of the Project.

The ODNR provided guidance that sandhill cranes are a wetland-dependent species that utilize shallow, standing water or moist bottomlands for roosting. For breeding, they require a large tract of wet meadow, shallow marsh, or bog. Any construction that could impact these areas should be avoided through the birds' nesting period of April 1 through August 31. The Project Survey Area is located within the city of Columbus and consists primarily of landscaped and old field vegetative communities, with a small stormwater retention basin at the northern end. Due to the lack of any marsh habitat, moist bottomlands, or wet meadows, no suitable roosting or nesting habitat for the sandhill crane was identified within the Project Survey Area. Due to the absence of habitat within the Project Survey Area, no further coordination with the ODNR is warranted.

4.0 SUMMARY

The ecological survey of the Project Survey Area identified one pond, one upland drainage feature, and no streams or wetlands. One upland data form was completed to characterize the Project site and included as **Appendix B**. The reported results of the ecological survey conducted by AECOM on this Project are limited to the areas within the Project Survey Area provided in **Figure 3**. Areas that fall outside of the Project Survey Area were not evaluated in the field and not included in the reporting of the survey.

Of the 27 state and/or federally listed threatened and endangered species within range of the Project Survey Area, no fish, bird, and/or mussel species, as well as their critical habitat, were identified. Trees along the edge of the existing right-of-way may provide suitable habitat for the bat species; if tree clearing were to become part of the Project scope of work, the ODNR and the USFWS recommends implementations of seasonal tree clearing between October 1 and March 31 to avoid adverse effects to Indiana bat, northern long-eared bat, little brown bat, and tricolored bat. Therefore, no further coordination is anticipated to be required to the USFWS and/or ODNR.

If tree clearing activities are required, the USFWS and ODNR recommend a seasonal tree clearing be completed between October 1st and March 31st. If summer tree clearing is required, further coordination is anticipated to be required with the USFWS and/or ODNR.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to natural processes or human impacts at the Project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of AECOM.

5.0 REFERENCES

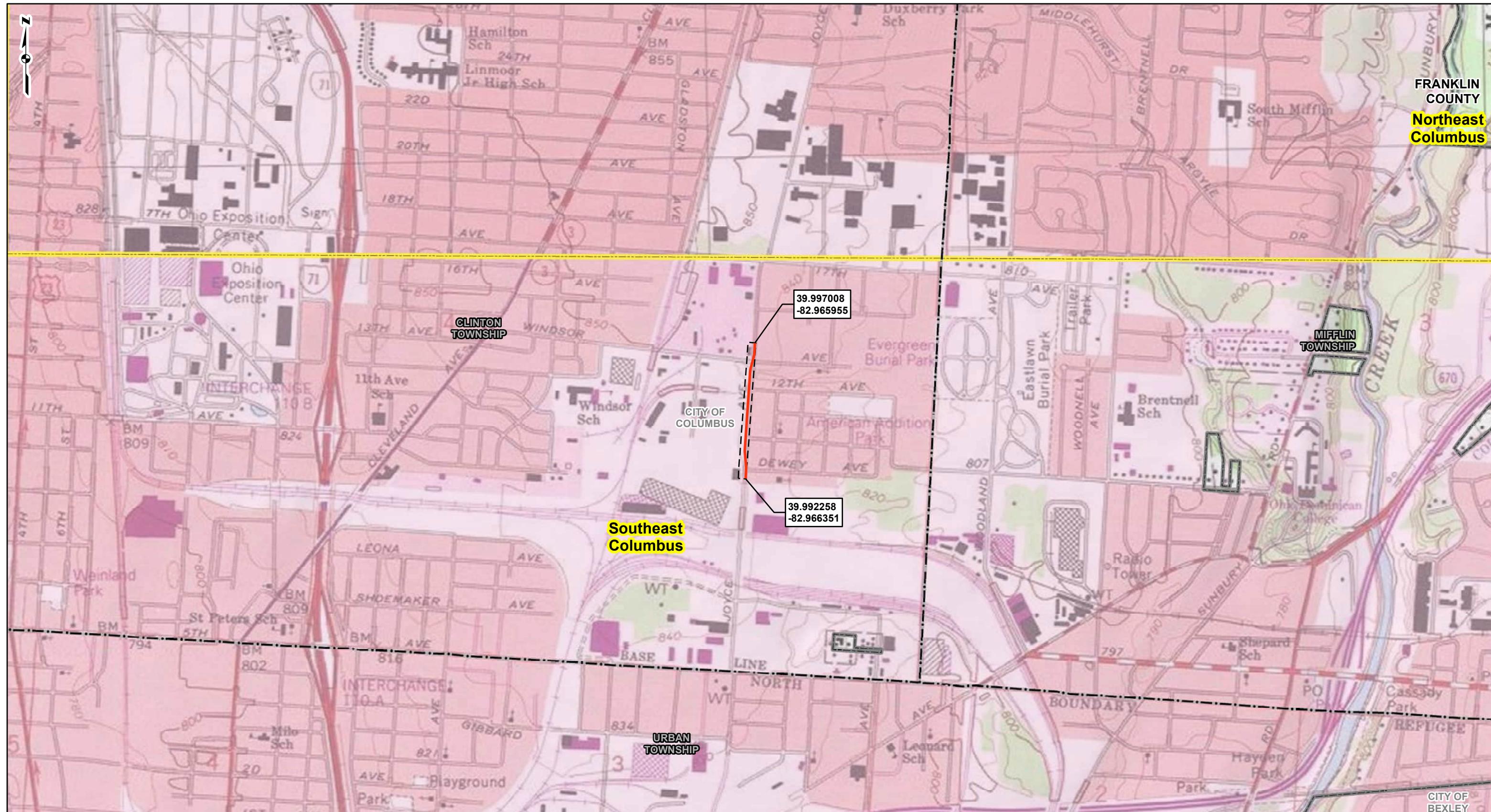
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PROJECT LOCATION

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: [UPDATE QUAD INFORMATION], OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 03/2024

FRANKLIN COUNTY, OHIO

3/27/2025

Legen

- PROPOSED MIFFLIN-SAINT CLAIR 138KV TRANSMISSION LINE RELOCATION

PROJECT SURVEY AREA

COUNTY BOUNDARIES

TOWNSHIP BOUNDARIES

MUNICIPAL BOUNDARIES

OHIO USGS 7.5' TOPOGRAPHIC QUADRANGLE

0 500 1,000 2,000

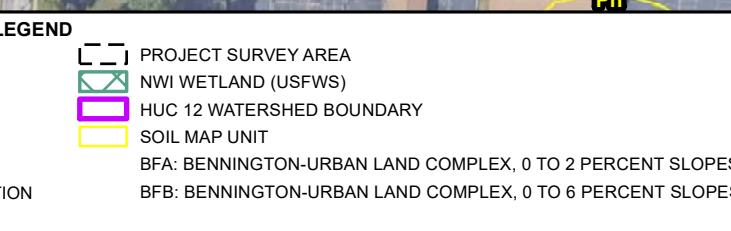
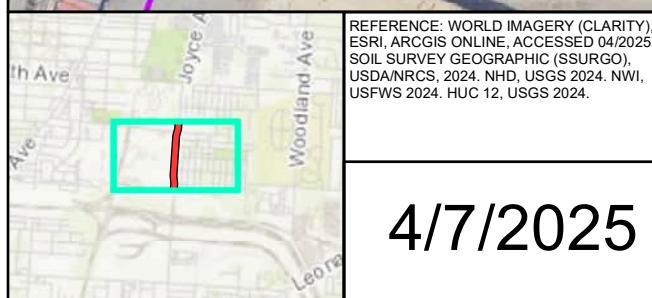
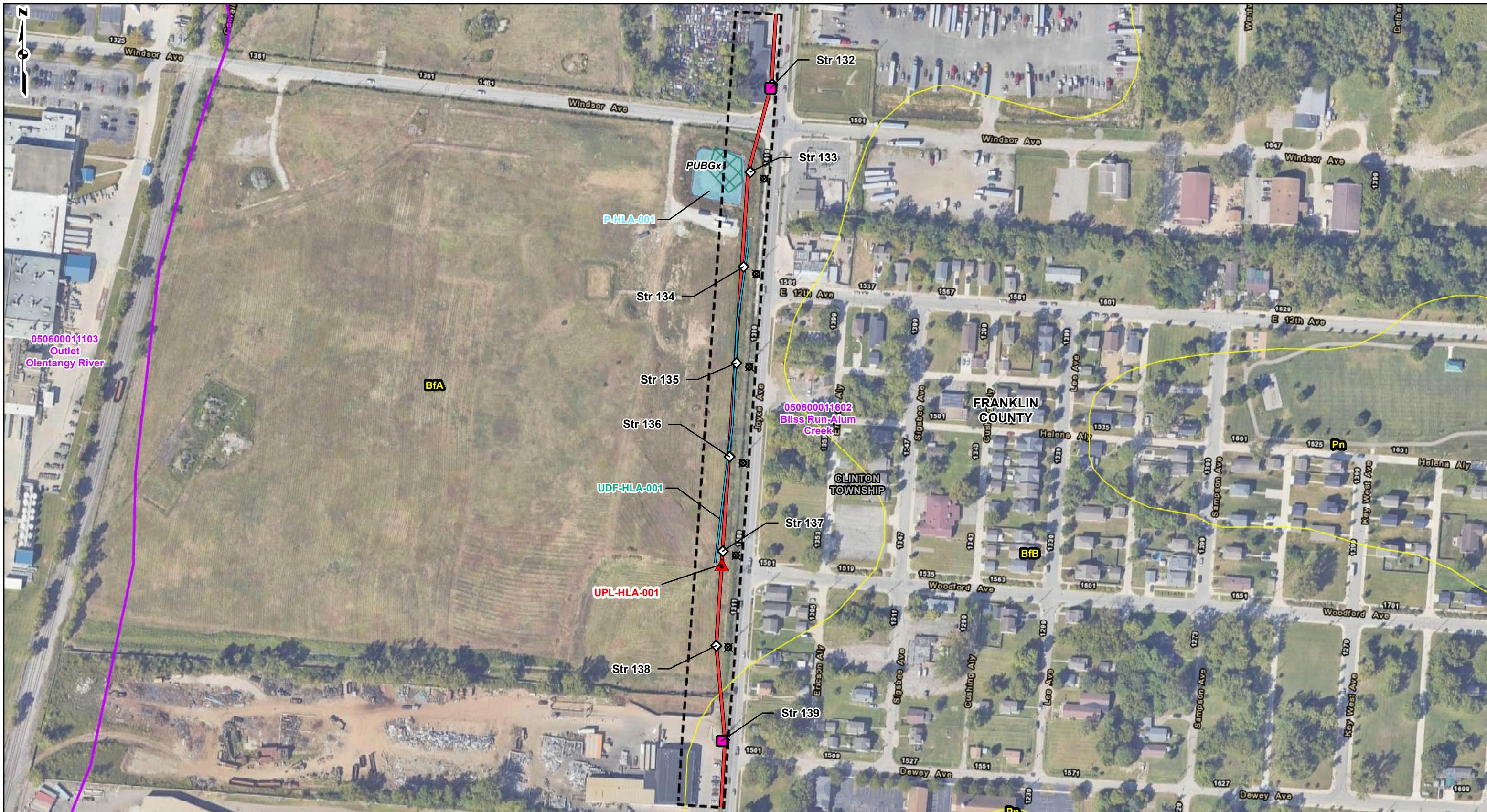
FIGURE 1 PROJECT LOCATION MAP

AECOM MIFFLIN-SAINT CLAIR 138KV TRANSMISSION
LINE RELOCATION PROJECT
AMERICAN ELECTRIC POWER

DRAWN BY: GI
CHECKED: JLK

DATE: 3/27/2025
APPROVED:

DRAWN BY: GIB DATE: 3/27/2025
CHECKED: JLK APPROVED:



0 100 200 400
Feet

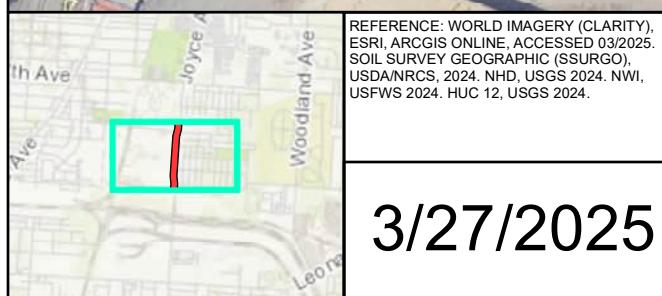
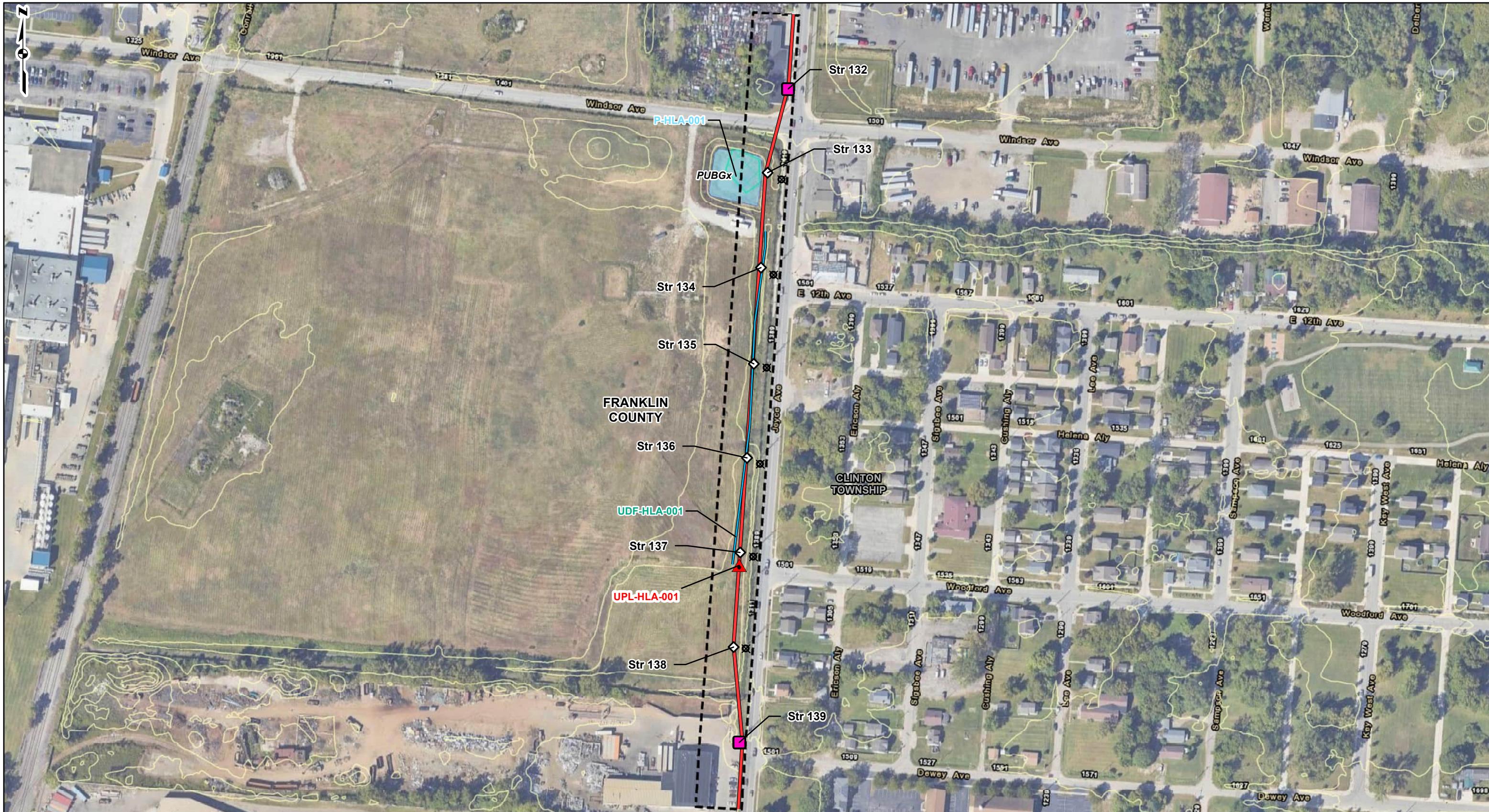
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FIGURE 2
SOIL MAP AND
NATIONAL WETLANDS INVENTORY MAP

MIFFLIN-SAINT CLAIR 138KV TRANSMISSION LINE
RELOCATION PROJECT
AMERICAN ELECTRIC POWER

AECOM
DRAWN BY: GIB
CHECKED: JKL
APPROVED:





- ◆ PROPOSED STRUCTURE
- EXISTING STRUCTURE (TO REMAIN)
- ☒ EXISTING STRUCTURE (TO BE REMOVED)
- [-] PROJECT SURVEY AREA
- ▲ UPLAND DATA POINT

- LEGEND**
- PROPOSED MIFFLIN-SAINT CLAIR 138KV TRANSMISSION LINE RELOCATION
 - Delineated Upland Drainage Feature
 - CONTOUR (5FT)
 - Delineated POND
 - NWI WETLAND (USFWS)

0 100 200 300 400
Feet

X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60751757_AEP_Mifflin_Saint_Clair\2_MXD\1_WDR\Mifflin_Saint_Clair_WDR FIG_3.mxd

FIGURE 3
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

MIFFLIN-SAINT CLAIR 138KV TRANSMISSION LINE
RELOCATION PROJECT
AMERICAN ELECTRIC POWER

AECOM



DRAWN BY: GIB
CHECKED: JLK

DATE: 3/27/2025
APPROVED:

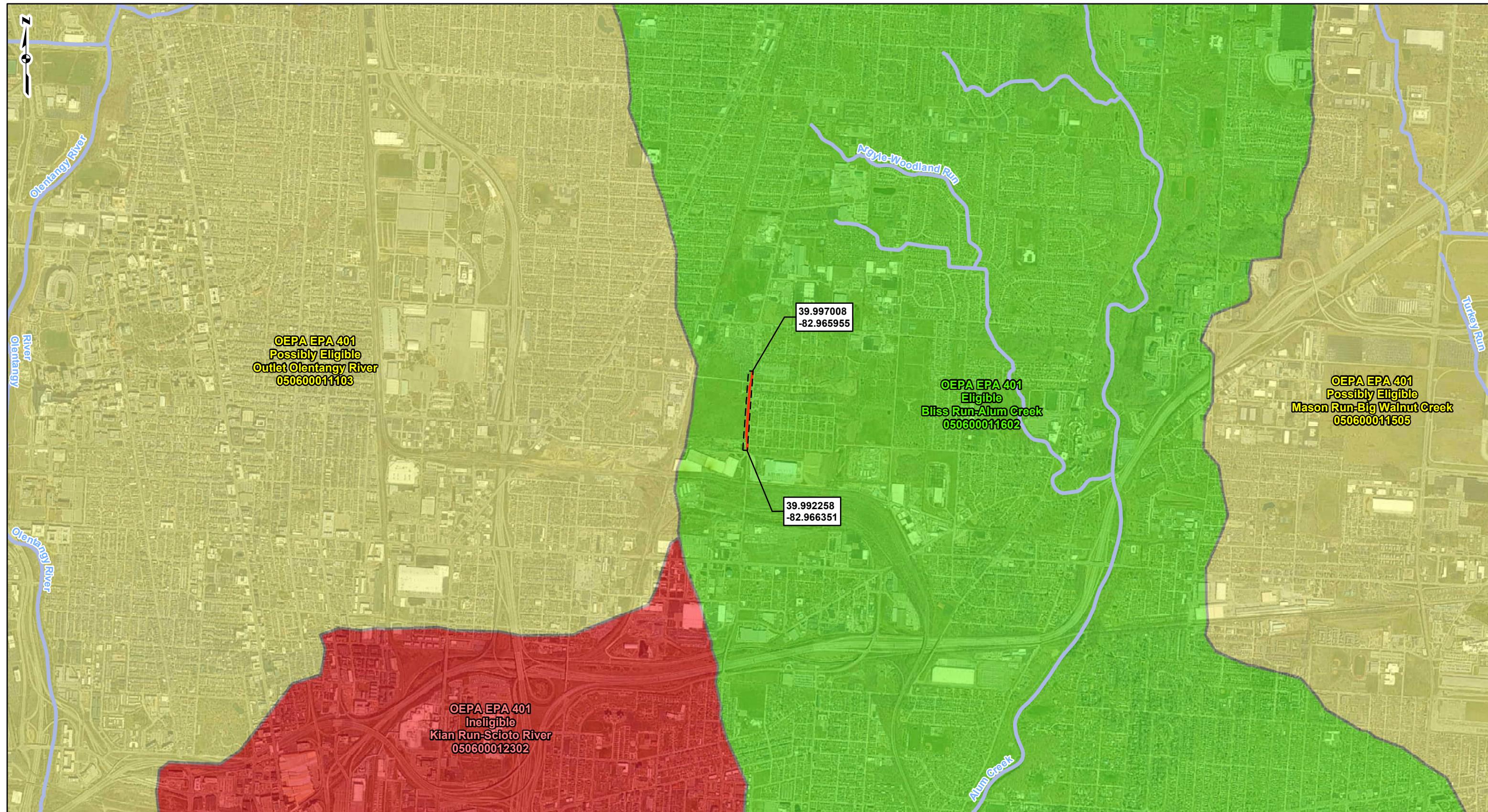


FIGURE 4
STREAM ELIGIBILITY MAP

MIFFLIN-SAINT CLAIR 138KV
TRANSMISSION LINE RELOCATION PROJECT
AMERICAN ELECTRIC POWER



DRAWN BY: GIB
CHECKED: JLK
APPROVED:

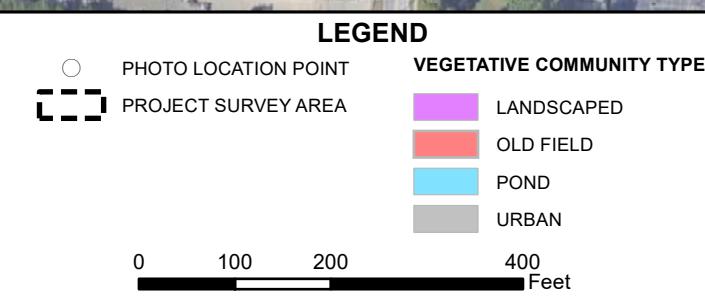
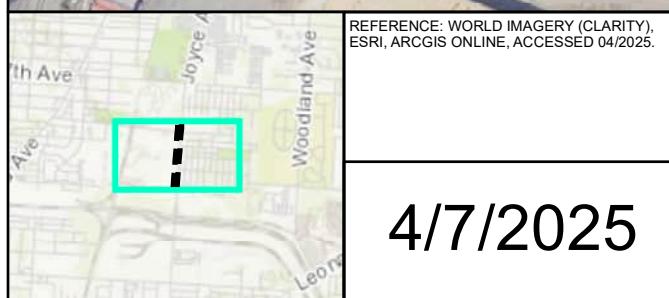
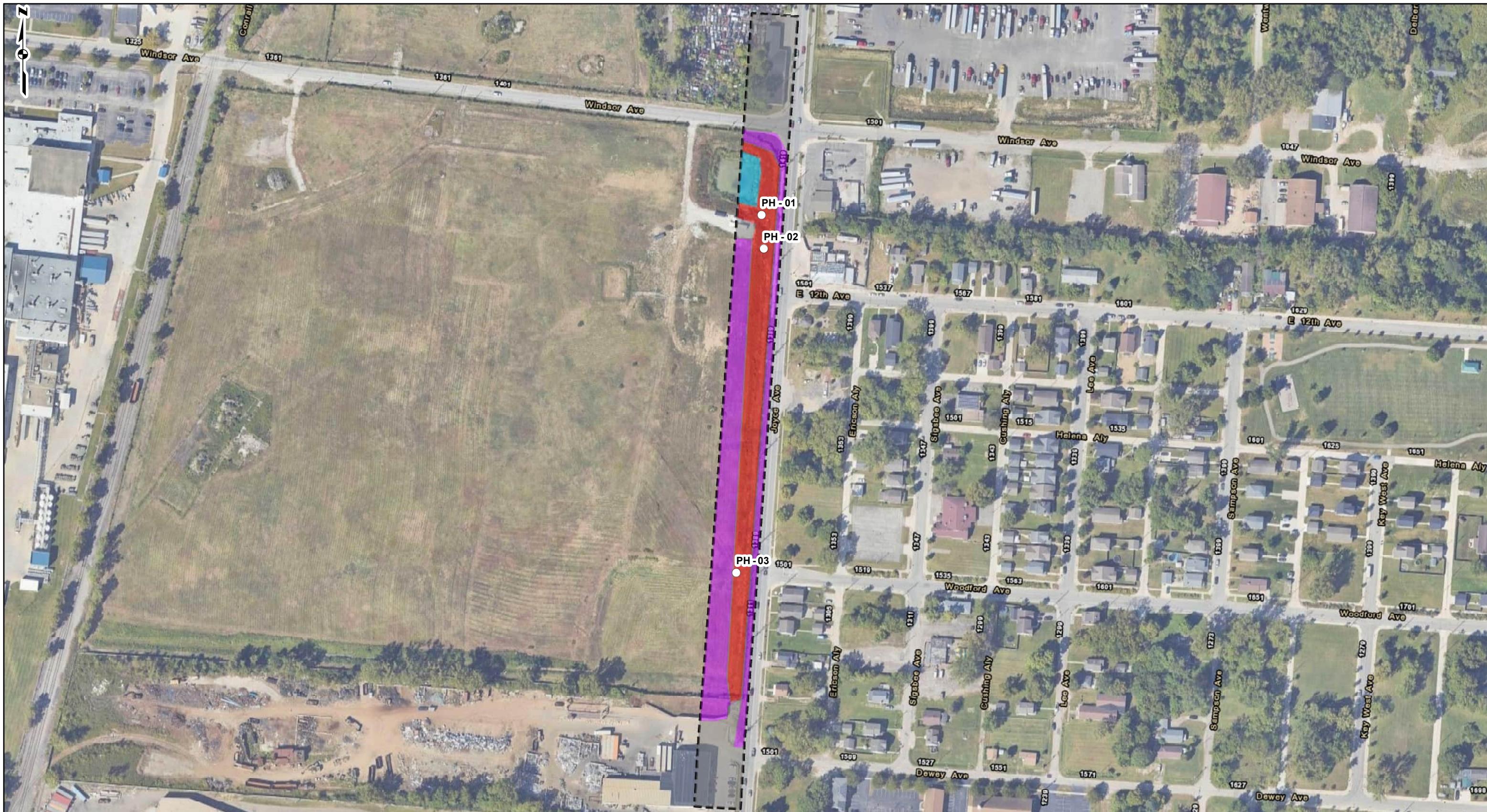
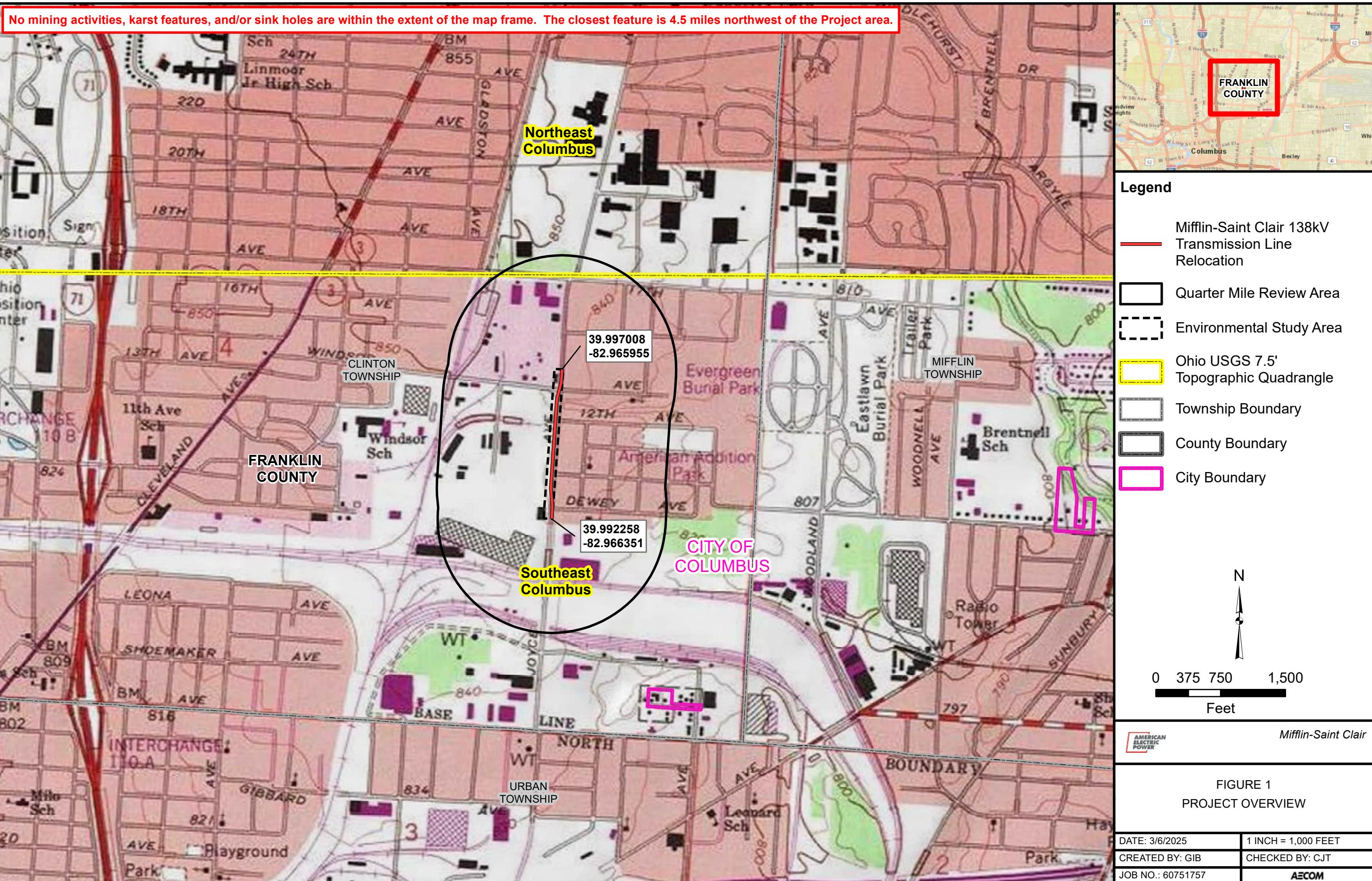


FIGURE 5
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

MIFFLIN-SAINT CLAIR 138KV TRANSMISSION LINE
RELOCATION PROJECT
AMERICAN ELECTRIC POWER

AECOM
AMERICAN ELECTRIC POWER
DRAWN BY: GIB
CHECKED: JLK
APPROVED:

APPENDIX A**DESKTOP ASSESSMENT FOR WINTER BAT HABITAT**



APPENDIX B**DELINEATED UPLAND POINT PHOTOGRAPHS AND DATA FORM**

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Mifflin-Saint Clair City/County: Franklin Sampling Date: 3/11/25

Applicant/Owner: AEP State: OH Sampling Point: UPL-HLA-001

Investigator(s): HLA, JMM Section, Township, Range: T1N R18W

Landform (hillside, terrace, etc.): Plains Local relief (concave, convex, none): Concave

Slope (%): 5 Lat: 39.99367 Long: -82.96637 Datum: NAD83

Soil Map Unit Name: BfA: Bennington-Urban land complex, 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 "t" 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

Hydrophytic Vegetation Present? Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present? Yes _____	No <input checked="" type="checkbox"/>			

Remarks:

Data point in workpad of STR 137 and within berms of a relic stormwater detention basin to investigate wetland conditions. Point is approx. 5ft east of identified UDF and surrounded by old field land cover. Vegetation, hydrology, and soils are disturbed.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30'r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1.					Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
2.					Total Number of Dominant Species Across All Strata:	2	(B)
3.					Percent of Dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)
4.							
5.							
				=Total Cover			
Sapling/Shrub Stratum	(Plot size: 15'r)				Prevalence Index worksheet:		
1.					Total % Cover of:	Multiply by:	
2.					OBL species	15	x 1 = 15
3.					FACW species	0	x 2 = 0
4.					FAC species	20	x 3 = 60
5.					FACU species	75	x 4 = 300
				=Total Cover	UPL species	0	x 5 = 0
					Column Totals:	110 (A)	375 (B)
					Prevalence Index = B/A =	3.41	
Herb Stratum	(Plot size: 5'r)				Hydrophytic Vegetation Indicators:		
1. <i>Andropogon virginicus</i>	40	Yes	FACU		1 - Rapid Test for Hydrophytic Vegetation		
2. <i>Bromus arvensis</i>	35	Yes	FACU		2 - Dominance Test is >50%		
3. <i>Poa pratensis</i>	20	No	FAC		3 - Prevalence Index is $\leq 3.0^1$		
4. <i>Scirpus atrovirens</i>	15	No	OBL		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.					Problems with Hydrophytic Vegetation ¹ (Explain)		
6.							
7.							
8.							
9.							
10.							
				=Total Cover			
Woody Vine Stratum	(Plot size: 15'r)				1 ^{Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.}		
1.							
2.							
				=Total Cover			
Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>					

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

Hydrophytic vegetation indicators are present. Vegetation disturbed due to regular mowing and shrub/sapling removal.

SOIL

Sampling Point: UPL-HLA-001

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

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5)
 - 2 cm Muck (A10)
 - Depleted Below Dark Surface (A11)
 - Thick Dark Surface (A12)
 - Sandy Mucky Mineral (S1)
 - 5 cm Mucky Peat or Peat (S3)
 - Sandy Gleyed Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Dark Surface (S7)
 - Loamy Mucky Mineral (F1)
 - Loamy Gleyed Matrix (F2)
 - Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Iron-Manganese Masses (F12)
 - Red Parent Material (F21)
 - Very Shallow Dark Surface (F22)
 - Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Remarks:

No hydric soil indicators are present. Soil disturbed due to construction of relic southwest retention basin.

HYDROLOGY

Wetland Hydrology Indicators:

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

- | | |
|-------------------------------------------|--------------------------------------------|
| Surface Water (A1) | Water-Stained Leaves (B9) |
| High Water Table (A2) | Aquatic Fauna (B13) |
| Saturation (A3) | True Aquatic Plants (B14) |
| Water Marks (B1) | Hydrogen Sulfide Odor (C1) |
| Sediment Deposits (B2) | Oxidized Rhizospheres on Living Roots (C3) |
| Drift Deposits (B3) | Presence of Reduced Iron (C4) |
| Algal Mat or Crust (B4) | Recent Iron Reduction in Tilled Soils (C6) |
| Iron Deposits (B5) | Thin Muck Surface (C7) |
| Inundation Visible on Aerial Imagery (B7) | Gauge or Well Data (D9) |
| Sparsely Vegetated Concave Surface (B8) | Other (Explain in Remarks) |

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
 - Drainage Patterns (B10)
 - Dry-Season Water Table (C2)
 - Crayfish Burrows (C8)
 - Saturation Visible on Aerial Imagery (C9)
 - Stunted or Stressed Plants (D1)
 - Geomorphic Position (D2)
 - EAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

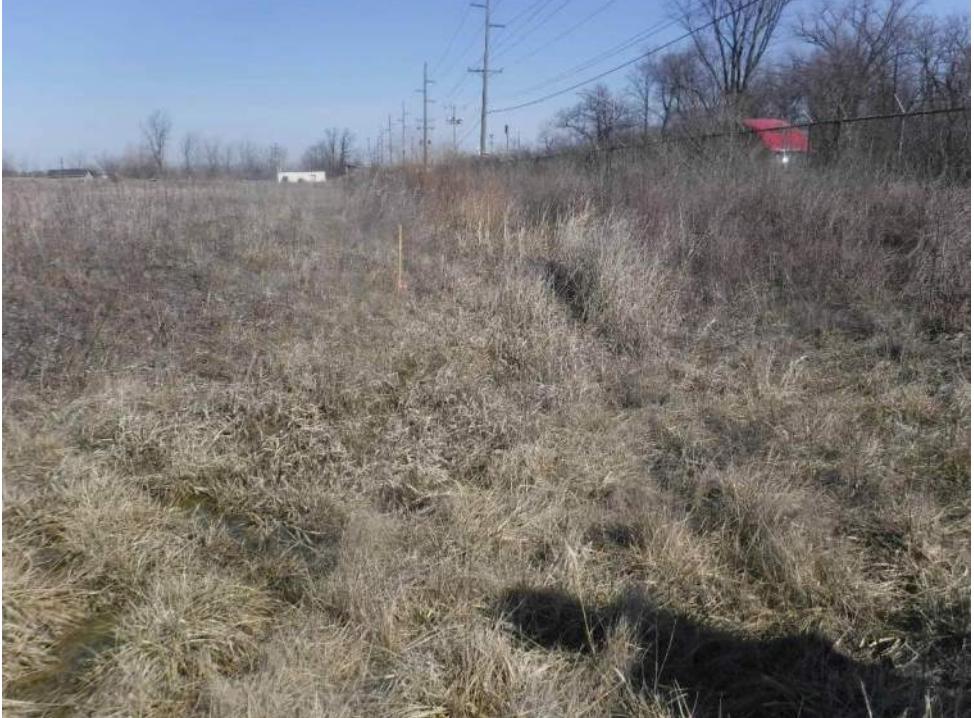
Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

One secondary indicator was observed. Criteria is not met.

Client Name:	Site Location:	Project No.
AEP	Mifflin-Saint Clair 138 kV Relocation Project	60751757

UPL-HLA-001	 A photograph of a grassy, open field. In the background, there are utility poles and wires. A red object, possibly a piece of equipment or a marker, is visible on the right side of the frame. The foreground is covered in dry, brown grass.
--------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UPL-HLA-001	 A photograph of a grassy, open field. In the background, there is a chain-link fence with barbed wire. Beyond the fence, there are bare trees and utility poles. A tall, dark chimney is visible on the right side of the frame. The foreground is covered in dry, brown grass.
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PHOTOGRAPHIC RECORD
Upland Photograph Record

Client Name:	Site Location:	Project No.
AEP	Mifflin-Saint Clair 138 kV Relocation Project	60751757

UPL-HLA-001	
Date:	
March 11, 2025	
Description:	
Upland point	
Facing South	

UPL-HLA-001	
Date:	
March 11, 2025	
Description:	
Upland point	
Facing West	

Client Name:

AEP

Site Location:

Mifflin-Saint Clair 138 kV Relocation Project

Project No.

60751757

UPL-HLA-001**Date:**

March 11, 2025

Description:

Upland point

Facing Substrate



APPENDIX C**UPLAND DRAINAGE FEATURE PHOTOGRAPHIC RECORD**

PHOTOGRAPHIC RECORD
Upland Drainage Features Photograph
Record

Client Name:	Site Location:	Project No.
AEP	Mifflin-Saint Clair 138 kV Relocation Project	60751757

UDF-HLA-001	
Date: March 11, 2025	

UDF-HLA-001	
Date: March 11, 2025	

Client Name:

AEP

Site Location:

Mifflin-Saint Clair 138 kV Relocation Project

Project No.

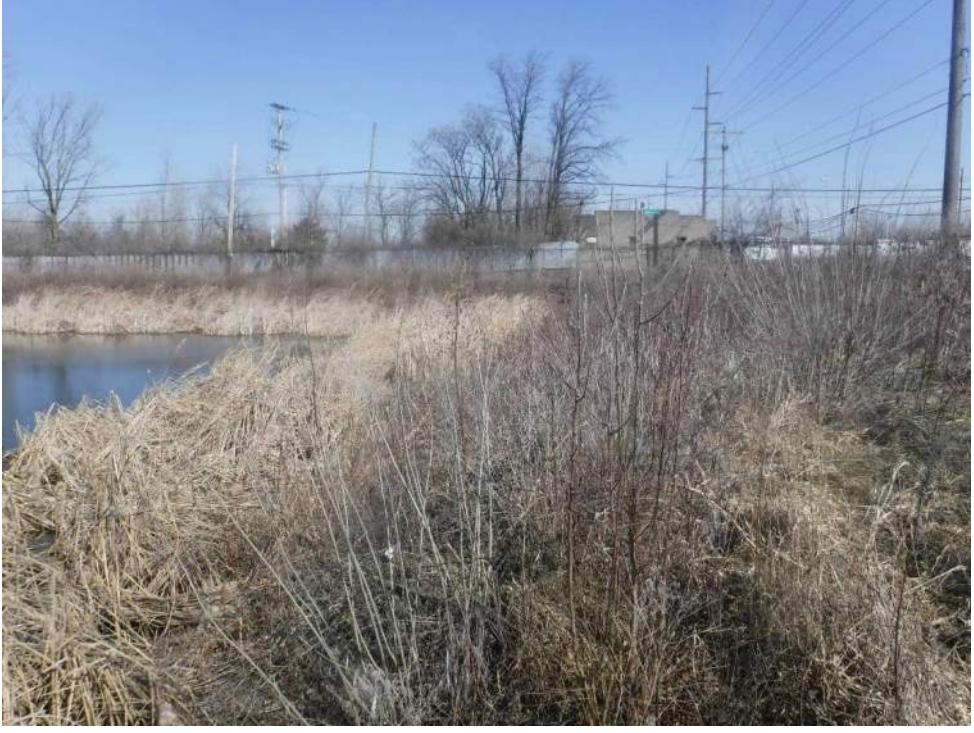
60751757

UDF-HLA-001	
Date:	March 11, 2025
Description:	Upland Drainage Feature Facing Substrate

APPENDIX D**HABITAT PHOTOGRAPHIC RECORD**

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP	Mifflin-Saint Clair 138 kV Relocation Project	60751757

PH-01	
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PH-02	
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PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name: AEP	Site Location: Mifflin-Saint Clair 138 kV Relocation Project	Project No. 60751757
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PH-03	
Date:	March 11, 2025
Description:	Old Field and Landscaped Facing South

APPENDIX E**AGENCY RESPONSE LETTERS**



Office of Real Estate & Land Management

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

April 8, 2025

Jesse Killosky
AECOM
707 Grant Street, 5th Floor
Pittsburgh, Pennsylvania 15219

Re: 25-0400 - Mifflin-Saint Clair 138kV Relocation

Project: The proposed project involves the relocation of portion of the Mifflin-Saint Clair 138 kV circuit to allow for the installation of a left turn lane along Joyce Avenue.

Location: The proposed project is located in Clinton Township, Franklin 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 project is within the vicinity of records for the little brown bat (*Myotis lucifugus*), a state endangered species. Because presence of a state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute

presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally 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 bat species 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. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible.

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

clubshell (*Pleurobema clava*)
rayed bean (*Villosa fabalis*)
northern riffleshell (*Epioblasma rangiana*)
snuffbox (*Epioblasma triquetra*)
purple cat's paw (*Epioblasma obliquata*)

Federally Threatened

rabbitsfoot (*Theliderma cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)
pocketbook (*Lampsilis ovata*)
long solid (*Fusconaia subrotunda*)
washboard (*Megalonaia nervosa*)
Ohio pigtoe (*Pleurobema cordatum*)

State Threatened

pondhorn (*Uniomerus tetralasmus*)
Salamander Mussel (*Simpsonaias ambiguia*)

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

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

State Endangered

goldeye (*Hiodon alosoides*)
shortnose gar (*Lepisosteus platostomus*)
Iowa darter (*Etheostoma exile*)
spotted darter (*Etheostoma maculatum*)
northern brook lamprey (*Ichthyomyzon fassor*)
tonguetied minnow (*Exoglossum laurae*)
popeye shiner (*Notropis ariommus*)

State Threatened

lake chubsucker (*Erimyzon suetta*)
paddlefish (*Polyodon spathula*)

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

The project is within the range of the sandhill crane (*Antigone canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds, they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on 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.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

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.



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



April 11, 2025

Project Code: 2025-0065732

Dear Jesse Killosky:

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,



Erin Knoll
Field Office Supervisor

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

APPENDIX F**2024 JOINT GUIDANCE**



OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE (OH-FIELD OFFICE) JOINT GUIDANCE FOR BAT SURVEYS AND TREE CLEARING MAY 2024

This document has been updated with new state guidance for the 2024 field season.

This guidance applies to state recommendations only. Contact the USFWS to determine if federal consultation is also necessary to comply with federal law.

Agency Contacts:

ODNR-DOW Permit Coordinator: Wildlife.Permits@dnr.ohio.gov, (614) 265-6315

ODNR-DOW Bat Survey Coordinator: Eileen Wyza, Eileen.Wyza@dnr.ohio.gov, (614) 265-6764

USFWS OHFO Endangered Species: Angela Boyer, angela_boyer@fws.gov, (614) 416-8993, ext.122

Covid-19 Guidance:

Surveyors should follow all covid protocols put in place by their agency. All surveyors should wear masks when handling bats and anyone exhibiting symptoms of covid-19 should not participate in bat surveys.

Ohio Mist-net Surveys:

This document serves as guidance for bat mist netting activities in Ohio and does not supersede any requirements listed on your permits or facility certificate. All permit conditions must be strictly adhered to for permits to be valid and for renewal of permits beyond the existing year.

Due to the presence of White-nose Syndrome (WNS), mist-netting in Ohio must be conducted between June 1 and August 15 unless stated otherwise in your state permit. The ODNR Division of Wildlife (ODNR-DOW) and U.S. Fish and Wildlife Service (USFWS) Ohio Field Office (OHFO) have determined that delaying netting activities until June 1 will provide additional recovery time for bats affected by WNS. For presence/probable absence surveys, netting will not be accepted outside of the June 1 - August 15 timeframe.

To assess project areas for presence or probable absence of the state and federally listed Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) during summer residency, the USFWS developed the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2024). This protocol may also be used for the tricolored bat (*Perimyotis subflavus*) which is state endangered and proposed to be federally endangered. **With minor modifications referenced below**, it can also be used in Ohio for the 2024 field season and includes surveying for the state-listed little brown bat (*Myotis lucifugus*).

According to the updated federal range-wide guidelines, presence/probable absence net surveys for northern long-eared bats or federally-proposed tricolored bats shall incorporate either 10 net nights per square 0.5 kilometer (123

acres) of project area, or four net nights per kilometer for linear projects. Presence/probable absence net surveys for Indiana bats shall incorporate six net nights per square 0.5 kilometer (123 acres) of project area, or two net nights per kilometer for linear projects. If a project area is eligible for a presence/probable absence survey for both Indiana bats and northern long-eared bats or tricolored bat, following the northern long-eared/tricolored bat level of effort will qualify as a presence/ probable absence survey for the three species. However, if a project area is eligible for a presence/absence survey for the three species, following the Indiana bat level of effort will not qualify the survey for a northern long-eared bat or tricolored bat presence/probable absence survey. Please note that the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2024) requires that a minimum of two (2) biologists (e.g., one permitted and one technician) must be on-site for every four (4) net-sets being operated. Exceptions to on-site minimum staffing levels may be allowed under extenuating circumstances, provided written justification is included in the proposed survey study plan and subsequently approved by the OHFO and ODNR-DOW.

Due to the reclassification of the northern long-eared bat to federally endangered on March 31, 2023, the northern long-eared bat 4(d) rule has been nullified. There is a new online tool in the USFWS's Information for Planning and Consultation (IPaC) website that allows project proponents to utilize the optional Northern Long-eared Bat Rangewide Determination Key (Dkey). **The Dkey cannot be used to replace consultation with ODNR-DOW.** Project proponents should coordinate directly with the ODNR-DOW for project technical assistance for all federally listed species, including the Indiana bat and northern long-eared bat. **OHFO discourages the use of the Dkey for Ohio projects.** Contacting OHFO directly (ohio@fws.gov) for technical assistance for both the northern long-eared bat and Indiana bat is the more efficient process.

The tricolored bat is listed as endangered by ODNR-DOW and has been officially proposed for federal listing as endangered. The USFWS is scheduled to publish a final rule on the tricolored bat's status by the end of September 2024. Therefore, in addition to coordinating with ODNR-DOW regarding the tricolored bat, we recommend that project proponents also coordinate with the OHFO. The USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2024) allows presence/absence surveys for the tricolored bat that use the northern long-eared bat level of effort.

Exception for Ohio mist-net surveys: All presence/absence surveys conducted for state listed bat species (Indiana, northern long-eared, little brown, tricolored) should follow the highest minimum net nights set forth in the federal guidance to be considered valid by ODNR-DOW. Any modifications to this position will be communicated at the time of the site authorization approval.

Ohio Acoustic Surveys:

Acoustic bat surveys for presence/absence will be accepted by ODNR-DOW for the 2024 season. Surveys should follow guidelines laid out in the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2024) with the following exceptions:

- Ohio survey dates are June 1 – August 15
- After conducting automated analyses using one or more of the currently available 'approved' acoustic bat ID programs¹, qualitative analysis (i.e., manual vetting) of any calls recorded from state-endangered species (*M. sodalis*, *M. septentrionalis*², *M. lucifugus*², and *P. subflavus*²) must be completed.
- **All presence/absence acoustic surveys conducted for state listed bat species (Indiana, northern long-eared, little brown, tricolored) should follow the highest minimum acoustic nights set forth in the federal guidance to be considered valid by ODNR-DOW. Any modifications to this position will be communicated at the time of the site authorization approval.**

¹ <https://www.fws.gov/media/indiana-bat-summer-survey-guidance>

² State listing as endangered effective July 1, 2020

At a minimum, for each detector site/night a program considered presence of state-listed bats likely, review all files (including no IDs) from that site/night. If more than one acoustic bat ID program is used, qualitative analysis must also include a comparison of the results of each program by site and night.

Combined Mist-netting and Acoustic Surveys:

ODNR-DOW will accept the USFWS pilot survey option of combining mist-netting and acoustic surveys for traditional survey sites (e.g., 123-acre area) detailed in Appendix I of the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (2024). All presence/absence combined mist-net and acoustic surveys conducted for state listed bat species should follow the highest minimum level of effort set forth by the federal guidance to be considered valid by ODNR-DOW. Any modifications to this position will be communicated at the time of the site authorization approval.

Before Field Season:

- Anyone surveying bats using mist-nets in the state of Ohio must obtain a federal permit as well as a state scientific collection permit. The federal permit should include both the Indiana bat and the northern long-eared bat.
- Your ODNR-DOW permit consists of two documents: a Scientific Collector (Wild Animal) Permit and an endangered species letter signed by the Chief of the Division of Wildlife (in addition to your federal permit). Both ODNR-DOW documents must be obtained prior to field work and kept with you and any sub-permittees during field work.

During Field Season:

- Prior to initiation of field work (a minimum of two weeks in advance), permittees must provide proposed mist netting plans to USFWS and ODNR-DOW in the form of an e-mail letter to the USFWS OHFO and copy to the ODNR-DOW Bat Survey Coordinator. Plans must be reviewed and approved by USFWS OHFO and ODNR-DOW before ANY surveys take place. Study plans must specify objectives, location details, dates of proposed work, and all other relevant details. **Study plans must also include a USFWS Project Code.** **Project Codes can only be obtained by requesting an official species list through the USFWS's Information for Planning and Consultation (IPaC) website: (<https://ipac.ecosphere.fws.gov/>).** When handling bats, you must strictly adhere to the current WNS Decontamination Protocol (current version can be found at <https://www.whitenosesyndrome.org/topics/decontamination>). Clothing, boots, gear, and equipment should all be thoroughly decontaminated between nights, as well as between netting sites.
- Request bat bands at least two weeks in advance of needing them. Bat bands can be obtained by e-mailing the ODNR-DOW Bat Survey Coordinator with how many bands are needed, current permit number, sizes, and a mailing address. Bands will not be issued until your permits are valid. We have three sizes of bands—2.4 mm, 2.9 mm, and 4.2 mm. The 2.4 mm split metal bat ring made of aluminum alloy is suitable for banding tricolored bats. 2.9 mm bands are suitable for Indiana, northern long-eared, and little brown bats. The larger 4.2 mm band is suitable for silver-haired (*Lasionycteris noctivagans*), big brown (*Eptesicus fuscus*), and hoary (*Lasius cinereus*) bats. **You must band all Indiana, northern long-eared, little brown, and tricolored bats with ODNR-DOW bands; therefore, you should not be in the field without the 2.4 mm and 2.9 mm sized bands.**

NOTE: While ODNR-DOW obtains 2.9 mm bands per new 2024 USFWS guidelines, banding of endangered *Myotis* species should not be done until 2.9 mm bands are received. Please watch for updates from the Wildlife Permits email and request 2.9 mm bands when they become available.

- Only individuals who are named on the ODNR-DOW endangered species letter portion of the permit and on the corresponding federal bat permit may conduct and oversee mist-net surveys. Trained assistants may work on permitted bat activities under the direct and on-site supervision of a named permittee. All bat IDs must be verified by a named permittee. If an Indiana bat, northern long-eared bat, and/or tricolored bat is captured, the permittee shall notify the USFWS and the ODNR-DOW Bat Survey Coordinator referenced

above within 48 hours via email. If a little brown bat is captured, notify the ODNR-DOW Bat Survey Coordinator only within 48 hours via email. Reports of listed bat captures should include specific information such as spatial location of capture, band information, radio-transmitter frequency information, sex, reproductive status, and age of individual.

- For presence/absence surveys, ODNR-DOW requires all female and juvenile state endangered and threatened bat species (Indiana, northern long-eared, little brown, and tricolored bat) be radio-tracked if caught, in accordance with methods outlined in Appendix D of USFWS 2024 Range-wide Indiana Bat Summer Survey Guidelines.

If you are taking any biological samples (tissue, fur, blood, etc.), this must be specifically authorized in your state and federal permits and noted in your survey proposal.

After Field Season:

By March 15, you must submit your final ODNR-DOW report(s) from the previous summer. You are not required to fill out the ODNR-DOW Wildlife Diversity Bat Excel Spreadsheet; instead, please forward your USFWS Midwestern US Spreadsheet (found here: <https://www.fws.gov/media/bat-reporting-spreadsheets>) to the ODNR-DOW Bat Survey Coordinator and ODNR-DOW Permit Coordinator and include your state permit number along with an electronic copy of the project report. Electronic summaries emailed during the field season are NOT considered as full compliance of this reporting requirement.

Ohio Environmental Review Recommendations for projects involving disturbance near potential/known bat hibernacula (cliffs, caves, mines) or tree cutting:

Step 1: Coordinate with Ohio Division of Wildlife regarding existing records for state-listed endangered bat summer and/or winter occurrence information. Potential hibernacula found during a habitat assessment must address possible suitability for Indiana bats, northern long-eared bats, tricolored bats, and little brown bats.

If project site contains a known bat hibernaculum(a) –

- Both the DOW and USFWS should be contacted for guidance on projects occurring:
 - Within 5 miles of known or potential Indiana bat and/or northern long-eared bat hibernacula.
 - Within 3 miles of known or potential tricolored bat hibernacula
- Only ODNR-DOW should be contacted if a project occurs within 5 miles of known or potential little brown bat hibernacula.

If a project site does not contain known bat hibernaculum(a) –

- Conduct a desktop habitat assessment of the project area. Tools such as the [ODNR Mines of Ohio Viewer](#), [Karst Interactive Map](#), topographic maps, aerial photos, historical records, etc. should be used to determine if there are any potential caves, mines, karst features, rock ledges, or other features that may serve as potential hibernacula.
- If no such features are found, proceed to **Step 2**.
- If potential hibernacula are found during the desktop assessment:
 - Assume bats are using these hibernacula and refrain from clearing trees from March 15 - Nov 15

OR

- Conduct a field habitat assessment to determine if a potential hibernaculum(a) is present within the action area. We encourage impacts to ledges and rock outcroppings be avoided. If impacts cannot be avoided, features should be evaluated for potential roosting characteristics such as recesses, overhangs, and crevices.

- **NOTE:** The USFWS Range-wide Indiana Bat Guidelines, Appendix H, contains instructions for completing a habitat assessment for Indiana bat, but can be applied to other bat species.

Step 2: Conduct a presence/absence survey following current ODNR-DOW guidelines, where applicable.

Step 3: If a state-listed endangered bat is captured or recorded during the survey:

- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 5 miles of an Indiana bat or little brown bat capture or 3 miles of a northern long-eared bat and/or tricolored bat capture if a roost is not located.
- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within a minimum of 2.5 miles of an Indiana bat or little brown bat roost or 1.5 miles of a northern long-eared bat and/or tricolored bat roost tree if located.
- Recommended tree clearing dates within capture record buffers are October 1 – March 31

If no state-listed endangered bat is captured or recorded during the survey:

- Summer tree cutting may proceed for 5 years before a new survey is needed under state guidance.

Limited summer tree cutting guidance for little brown bats: Limited tree cutting in summer may be permitted after consultation with ODNR-DOW, but clearing trees with the following characteristics should be avoided unless they pose a hazard: dead or live trees of any size with loose, shaggy bark; crevices, holes, or cavities; clusters of dead leaves; live trees of any species with DBH $\geq 20''$.

FREQUENTLY ASKED QUESTIONS

When does the ODNR-DOW Bat Survey protocol have to be used?

This protocol should be used anytime Indiana bat, northern long-eared bat, little brown bat, or tricolored bat summer presence/probable absence surveys are conducted in the state of Ohio.

How many detector nights are required for presence/probable absence acoustic surveys?

As described in the current USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines:

Level of effort for all state-listed endangered bat species: follow highest minimum detector nights as outlined in the federal guidance for northern long-eared bat and tricolored bat.

Northern Long-eared Bat and Tricolored Bat Level of Effort:

Linear projects: a minimum of 4 detector nights per km (0.6 miles) of suitable summer habitat

Non-linear projects: a minimum of 10 detector nights per 123 acres (0.5 km²) of suitable summer habitat.

At least 2 detector locations per 123 acre "site" shall be sampled until at least 10 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:

- 5 detectors for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 5 nights each (can sample the same location or move within the site)
- 1 detector for 10 nights (must sample at least 2 locations and move within the site – we recommend evenly distributing LOE among locations)

Indiana Bat Level of Effort:

Linear projects: a minimum of 2 detector nights per km (0.6 miles) of suitable summer habitat

Non-linear projects: a minimum of 6 detector nights per 123 acres (0.5 km²) of suitable summer habitat.

At least 2 detector locations per 123 acre "site" shall be sampled until at least 6 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:

- 3 detectors for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 3 nights each (can sample the same location or move within the site)
- 1 detector for 6 nights (must sample at least 2 locations and move within the site – we recommend evenly distributing LOE among locations)

How many net surveys are required for presence/probable absence?

Level of effort for all state-listed endangered bat species including Indiana bat and northern long-eared bats:

Follow highest minimum net nights as outlined in the federal guidance for the northern long-eared bat and tricolored bat.

Net surveys for northern long-eared bat presence/probable absence shall incorporate, at a minimum, either 10 net nights per square 0.5 kilometer (123 acres) of project area, or four net nights per kilometer for linear projects. For linear projects, there must be at least one net night of survey on two different nights (minimum of two nights). This does not allow for two net nights on a single night for surveys.

Net surveys for Indiana bat presence/probable absence shall incorporate, at a minimum, either six net nights net nights per square 0.5 kilometer (123 acres) of project area, or two net nights per kilometer for linear projects. For

linear projects, there must be at least one net night of survey on two different nights (minimum of two nights). This does not allow for two net nights on a single night for surveys.

How long are the results of the surveys valid for an assessment of an area?

Mist-net or acoustic surveys documenting probable absence of state-listed endangered bats are valid for five years.

When can acoustic or net surveys occur in Ohio?

In Ohio, acoustic or net surveys may only be conducted from June 1 through August 15 unless indicated otherwise in your state permit. Any surveys outside of the June 1 - August 15 timeframe cannot be used in Ohio to assess the presence/probable absence of state-listed bats.

Can a presence/probable absence survey be conducted within a known bat capture/detection buffer?

Surveys generally cannot be used to document presence/probable absence of state-listed endangered bats where presence of the species has already been confirmed by prior surveys.

What if a project is proposing to clear trees between April 1 and September 30 when bats may be present but no bat records exist in the project area?

Any Ohio project that is not within a known bat record buffer, and tree clearing between April 1 and September 31 is being proposed, may have a presence/probable absence survey conducted between June 1 and August 15 following the range-wide guidance. If a presence/probable absence survey is not performed, presence of listed bats is assumed.

Where do I get bands?

If you need bands, email the ODNR-DOW Bat Survey Coordinator at least two weeks in advance with your current ODNR permit number, how many bands in each size (2.4 mm, 2.9 mm, and 4.2 mm) you will need this season, and a current address to ship the bands.

Do I have to band every bat?

No, currently this is optional. However, you are required as per your state permit to band all Indiana, northern long-eared, little brown, and tricolored bats.

NOTE: While ODNR-DOW obtains 2.9 mm bands per new 2024 USFWS guidelines, banding of endangered *Myotis* species should not be done until 2.9 mm bands are received. Please watch for updates from the Wildlife Permits email and request 2.9 mm bands when they become available.