

Construction Notice Bixby-Marion Road 138 kV Prop Pole Project



An **AEP** Company

PUCO Case No. 23-1046-EL-BNR

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

Submitted by:
Ohio Power Company

November 17, 2023

Construction Notice for Bixby-Marion Road 138 kV Prop Pole Project

Construction Notice

Ohio Power Company Bixby-Marion Road 138 kV Prop Pole Project

4906-6-05

Ohio Power Company (the “Company”) provides the following information to the Ohio Power Siting Board (“OPSB”) pursuant to Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

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 Construction Notice.

The Company proposes to construct the Bixby-Marion 138 kV Prop Pole Project (the “Project”) in the City of Columbus, Franklin County, Ohio. The Project involves the installation of one double circuit wood, 2-pole cross braced structure along the existing transmission line. The Project is within the existing right-of-way (ROW) of the 138 kV transmission line, and no new ROW is necessary. The location of the Project is shown on Figures 1 and 2 in Appendix A.

The Project meets the requirements for a CN because it is within the types of projects defined by item (2) (a) of Ohio Administrative Code Section 4906-1-01 Appendix A of the Application Requirement Matrix For Electric Power Transmission Lines:

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

The Project has been assigned PUCO Case No. 23-1046-EL-BNR.

B(2) Statement of Need

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

The Project is required to ensure proper operating clearances on the existing transmission line. Failure to construct the Project is expected to result in portions of the line not meeting clearance requirements and potentially creating operational constraints under certain load conditions. The Project’s proposal to construct a prop pole on the existing line will mitigate these risks.

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As this Project results in no operational, modeling, or topology changes, the Project will not be brought through the PJM M-3 process.

B(3) Project Location

The applicant shall 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 is shown in Figure 1 of Appendix A.

B(4) Alternatives Considered

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

The Project adds one prop pole structure along an existing 138 kV electric transmission line. The prop pole is the most suitable solution for the Project, as other alternatives would require additional or more costly structures or relocating the existing transmission line. The proposed Project is not anticipated to impact wetlands, streams, or habitat for threatened and endangered species. Therefore, this alternative represents the most suitable location and is the most appropriate solution for meeting the Company's needs in the area.

B(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Company maintains a website (<http://aeptransmission.com/ohio/>) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library in each political subdivision affected by this Project. The Company also retains land agents who will discuss Project timelines, construction and restoration activities with affected owners and tenants.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

Construction of the Project is planned to begin and be placed back in-service in December 2023.

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B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Figure 1 in Appendix A provides the proposed Project area on a map of 1:24,000-scale (1 inch equals 2,000 feet), showing the Project on the United States Geological Survey (USGS) 7.5-minute topographic map of the Southeast Columbus, Ohio quadrangle. Figure 2 in Appendix A shows the Project Area on recent aerial photography, dated 2022, as provided by ESRI World Imagery at a scale of 1:6,000 scale (1 inch equals 500 feet).

To visit the Project site from Columbus, Ohio, take U.S. 23 (South High Street) to OH-104. Turn left to merge onto OH-104 N toward U.S. 33. After 0.6 mile, take Exit 92 for Groveport Road toward Parsons Avenue. Turn right onto Groveport Road. Continue for 0.9 mile and turn left onto Wilson Avenue. Head north on Wilson Avenue for approximately 0.2 mile. The structure to be added is located approximately 200 feet west of Wilson Avenue (latitude 39.90904713, longitude -82.97068969).

B(8) Property Agreements

The applicant shall 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.

The Project is located on Parcel Number 010-112262 in Franklin County. The Project is located within the existing ROW. No additional property easements, options, or land use agreements are necessary to construct the Project.

B(9) Technical Features

The applicant shall 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.

Line Asset Name:	Bixby-Marion Road 138 kV
Ownership:	Ohio Power Company
Voltage:	138 kV
Conductors:	(3) 636 kcmil ACSR 26/7 Grosbeak (3) 795,000 ACSR 26/7 Drake
Static Wire:	(1) 3#5 E.H.S Copperweld and (1) 0.66" opgw 96 fibers Static wire will not be attached to structure.
Insulators:	Polymer
ROW Width:	100 feet
Structure Type:	(1) Wood, 2-pole cross braced

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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.

No occupied residences or institutions are located within 100 feet of the Project.

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the Project, which is comprised of applicable tangible and capital costs, is approximately \$275,000 using a Class 5 estimate. Pursuant to the PJM OATT, the costs for this Project will be recovered in the Ohio Power Company's FERC formula rate (Attachment H-14 to the PJM OATT) and allocated to the AEP Zone.

B(10) Social and Ecological Impacts

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

B(10)(a) Land Use Characteristics

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

An aerial photograph of the Project vicinity is provided as Figure 2 in Appendix A. The Project is located in the City of Columbus, Franklin County, Ohio. Land use throughout the Project Area consists of existing electric transmission line right-of-way. Adjacent land uses include vacant railroad-owned property, commercial facilities, and Marion Franklin Park.

B(10)(b) Agricultural Land Information

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 is within existing electric transmission line right-of-way crossing non-agricultural land. No impacts to agricultural land are anticipated. The Franklin County Auditor indicated that the Project parcel is not registered as Agricultural District Land on October 30, 2023.

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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.

The Company's consultant will complete a Phase I Cultural Resource Management Investigation of the Project Area. The results of the report will be coordinated with the Ohio Historic Preservation Office (SHPO). The response from SHPO will be provided to OPSB Staff upon receipt.

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 Notice of Intent is only needed with the Ohio Environmental Protection Agency for authorization of construction storm water discharges under General Permit OHC000006, if ground disturbance exceeds one acre. The area of disturbance is below reporting and permitting requirements for state and local stormwater permitting requirements and no permits are required. The Company will implement and maintain best management practices to minimize erosion control sediment to protect surface water quality during storm events.

Per field reviews on November 8, 2023, no streams, wetlands, or other water bodies were identified in the survey corridor. Therefore, the Project will not require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or a Section 401 Water Quality Certification from the OEPA. A summary report is provided in Appendix C.

The FEMA Flood Insurance Rate Map was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project Area (specifically, map number **39049C0336K**). Based on this mapping, no mapped FEMA floodplains are located in the Project Area. Therefore, no floodplain permit will be required for this Project.

There are no other known local, state, or federal requirements that must be met prior to commencement of the proposed Project.

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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.

As part of the ecological study completed for the Project, a coordination letter was submitted to the United States Fish and Wildlife Service (“USFWS”) Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened and endangered species. The November 9, 2023 response letter from the USFWS (see Appendix B) indicated all projects in the State of Ohio lie within the range of the federally endangered Indiana bat and northern long-eared bat as well as the federally proposed endangered tricolored bat. In Ohio, presence of these species is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document probable absence. The USFWS response letter states that, should the Project site contain trees ≥ 3 inches diameter at breast height (dbh), the trees be saved whenever possible. If any caves or abandoned mines may be disturbed, further coordination is requested. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, the USFWS recommends that removal of trees ≥ 3 inches dbh only occur between October 1 and March 31 in order to avoid adverse effects to these species. If implementation of seasonal tree clearing is not possible, the USFWS recommends summer presence/absence surveys be conducted between June 1 and August 15. Additionally, the USFWS states that they do not anticipate adverse effects to any other federally endangered, threatened, proposed or candidate species due to the Project type, size, and location. Based on current USFWS Ohio Field Office guidance, a desktop evaluation of potential hibernaculum was conducted in the Project area. No hibernaculum or caves were located in the Project area based on the site reconnaissance and review of documented mines and karst features. Additionally, no tree clearing is anticipated as part of the Project. Therefore, no impacts were anticipated for the Indiana bat, northern long-eared bat, or tricolored bat.

A coordination letter was also submitted to the Ohio Department of Natural Resources (“ODNR”) Division of Wildlife (“DOW”). However, a response has not been received to date. Based on the urgency of the Project, a response from the ODNR regarding another recent project in Franklin County was relied upon to assess potential impacts to threatened and endangered species (see Appendix B). Based on this response, the Project is within the vicinity of records for the Indiana bat, a state and federally endangered species; northern long-eared bat, a state-endangered and federally threatened species; little brown bat, a state-endangered species; and the tricolored bat, a state endangered species. No tree clearing is anticipated for the Project. Therefore, no additional coordination with ODNR is anticipated.

The Project is within the range of 13 endangered or threatened mussel species and nine endangered or threatened fish species. Due to no in-water work, the Project is not likely to impact these species.

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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.

No unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, or other protected natural areas were identified within the Project Area.

FEMA Flood Insurance Rate Maps were consulted to identify any floodplains/flood hazard areas that have been mapped in the Project Area (specifically, map number **39049C0336K**). Based on this mapping, no mapped FEMA floodplains are located in the Project Area.

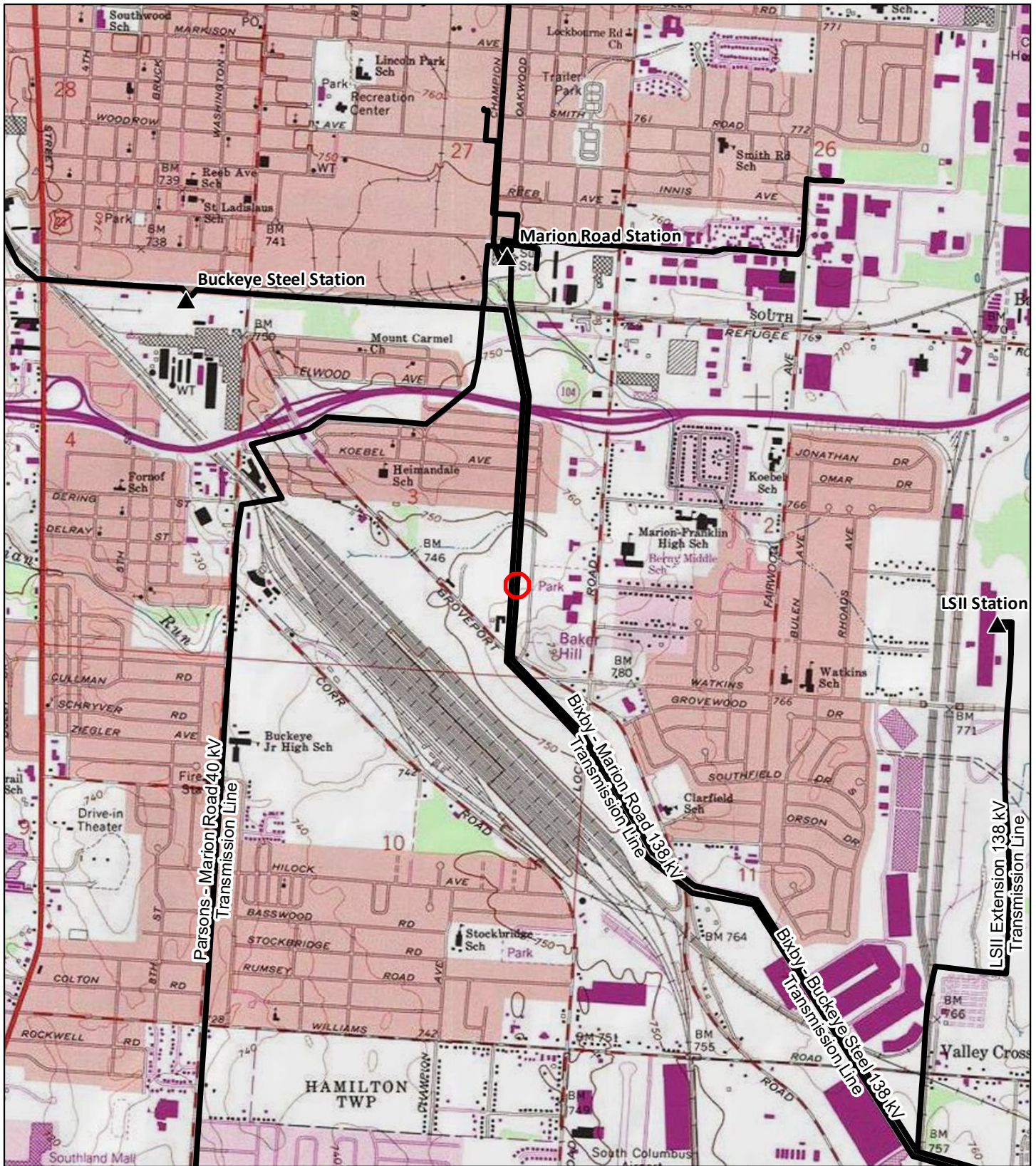
Wetland and stream delineation field surveys were completed within the Project area by the Company's consultant on November 8, 2023. No streams, wetlands, or other water bodies were identified in the survey corridor. A summary report is provided in Appendix C.

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



Legend:

- Project Area
- Existing Station
- Existing Transmission Line

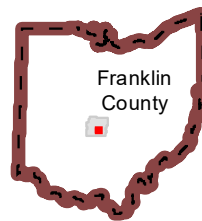
Data Sources: AEP, USGS 7.5' Topographic Quadrangle (Southeast Columbus, Ohio)

Ohio State Plane South NAD 1983



October 26, 2023

PROJECT LOCATION

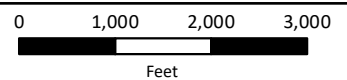


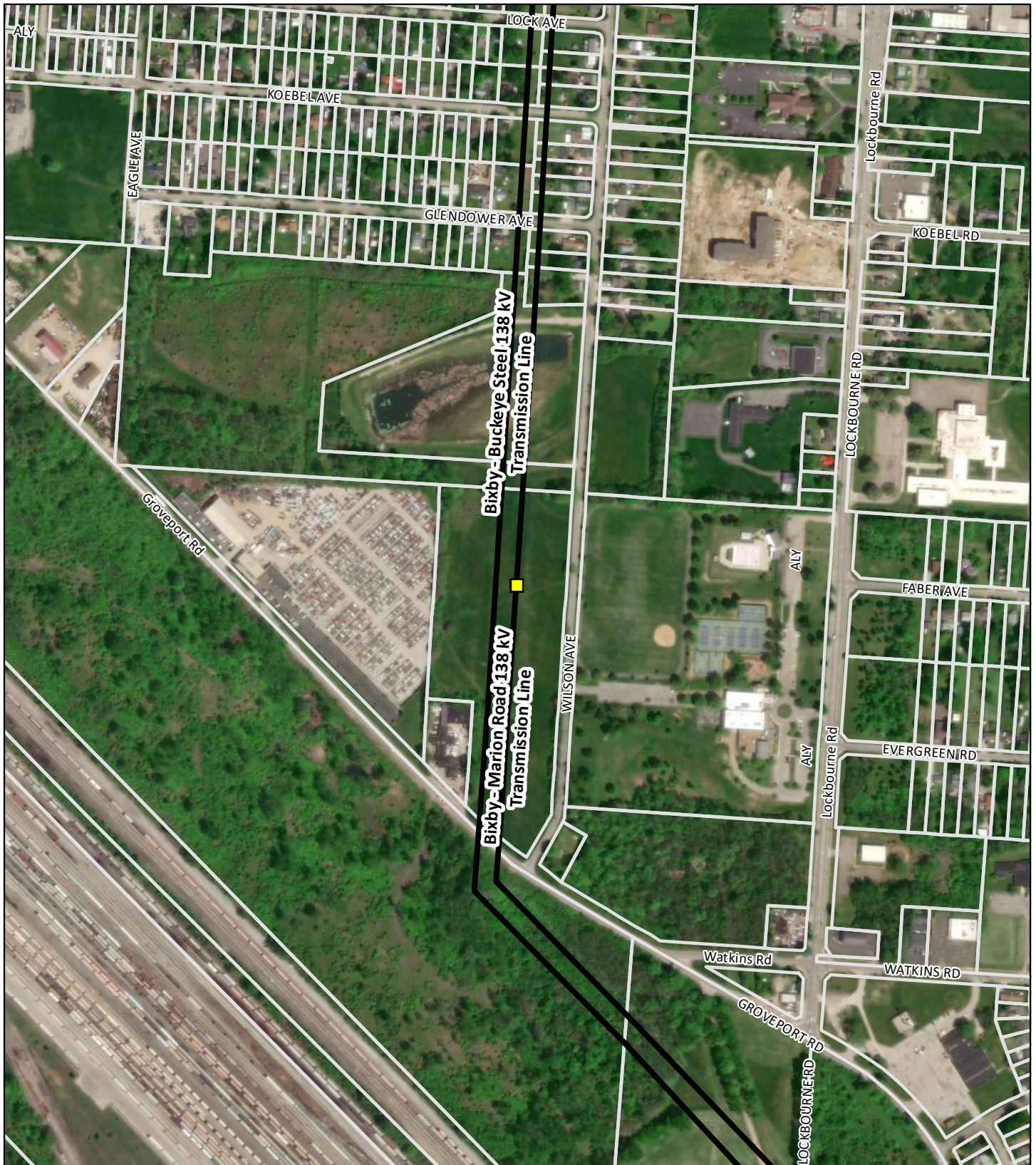
FRANKLIN COUNTY, OHIO

**FIGURE 1
TOPOGRAPHIC OVERVIEW**






Bixby-Marion Road 138 kV Prop Pole Project





Legend:

-  Proposed Prop Pole Structure
-  Existing Transmission Line
-  Parcel Boundary

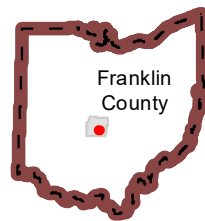
Data Sources: AEP,
ESRI World Imagery, 2022

Ohio State Plane North
NAD 1983



October 26, 2023

PROJECT LOCATION

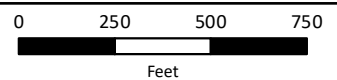


FRANKLIN COUNTY, OHIO

**FIGURE 2
PROJECT AERIAL MAP**



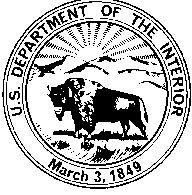
**Bixby-Marion Road 138 kV
Prop Pole Project**



Appendix B

Agency Coordination

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



November 9, 2023

Project Code: 2024-0013991

Dear Bridgette Glass:

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

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

Seasonal Tree Clearing for Federally Listed Bat Species: The proposed project is in the vicinity of one or more confirmed records of Indiana bats and/or northern long-eared bats. 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. Please note that, because Indiana bat and/or northern long-eared bat presence has already been confirmed in the project vicinity, any additional summer surveys would not constitute presence/absence surveys for these species.

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.

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

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

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

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

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

Sincerely,

A handwritten signature in blue ink that reads "Scott Hicks". The signature is written in a cursive style and is positioned above the printed name.

Scott Hicks
Acting Field Office Supervisor

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



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

October 18, 2023

Anna Findish
AECOM
707 Grant Street
Pittsburgh, Pennsylvania 15219

Re: 23-1088_AEP Beatty-Canal Street 138 kV Transmission Line

Project: The proposed project involves the replacement of four existing structures along 0.17 miles of the easting Beatty Canal Street 138 kV transmission line.

Location: The proposed project is located in Jackson Township and the City of Columbus, 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: The Natural Heritage Database has the following data within one mile of the project area:

Lark Sparrow (*Chondestes grammacus*), E
Tippicanoe Darter (*Etheostoma tippecanoe*), SC
Black Sandshell (*Ligumia recta*), SC
Threehorn Wartyback (*Obliquaria reflexa*), SC
Clubshell (*Pleurobema clava*), E, FE
Fawnsfoot (*Truncilla donaciformis*), SC
Deertoe (*Truncilla truncata*), SC

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Location records for the species listed above are provided in a shapefile attachment to this letter. Species location information will not be published or distributed beyond the scope of the project description on the data request form.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "[OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING](#)". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

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

Federally Endangered

clubshell (*Pleurobema clava*)

rayed bean (*Villosa fabalis*)

northern riffleshell (*Epioblasma torulosa rangiana*)

snuffbox (*Epioblasma triquetra*)

purple cat's paw (*Epioblasma o. obliquata*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)

pocketbook (*Lampsilis ovata*)

long solid (*Fusconaia maculata maculate*)

washboard (*Megaloniaias nervosa*)

Ohio pigtoe (*Pleurobema cordatum*)

State Threatened

pondhorn (*Uniomerus tetralasmus*)

Salamander Mussel (*Simpsonaias ambigua*)

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 fossor*)

tonguetied minnow (*Exoglossum laurae*)

popeye shiner (*Notropis ariommus*)

State Threatened

lake chubsucker (*Erimyzon sucetta*)

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.

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

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

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator

Appendix C Ecological Report

BIXBY-MARION 138 KV TRANSMISSION LINE (STRUCTURES 44 TO 46) PROJECT

FRANKLIN COUNTY, OHIO

ECOLOGICAL REPORT

Prepared for:

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



Prepared by:

AECOM

525 Vine Street, Suite 1800
Cincinnati, Ohio 45202

Project #: 60720174

November 2023

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1.0 INTRODUCTION

American Electric Power, Ohio Transmission Company (AEP Ohio Transco) is proposing remedial actions along 0.27-miles of the existing Bixby-Marion 138 kilovolt (kV) transmission line as part of the Bixby – Marion 138kV Transmission (Structures 44 to 46) Project within the City of Columbus, Franklin County, OH. The Project survey area associated with this Ecological Report is located within the Southeast Columbus, OH, United States Geological Survey (USGS) 7.5-minute topographical quadrangle as displayed on the Project Overview 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 area. Secondly, 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 as well as threatened and endangered species habitat present within the proposed Project 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 existing transmission line centerline and 50-foot-wide corridor centered along proposed access roads totaling approximately 3.97-acre 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 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 iPad 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 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 ineligible for coverage under the OEPA's 401 Water Quality Certification (WQC) for Nationwide Permits (OEPA, 2017). 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 D "Stream Eligibility Determination Process" of the OEPA Ohio State Water Quality Certification of the 2017 Nationwide Permit Reauthorization.

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 November 08, 2023, AECOM ecologists walked the Project survey area to conduct the wetland delineation, stream assessment and habitat survey. During the site assessment, no streams, ponds, and/or wetlands were identified within the Project area. However, two upland representative data points (UPL-RBL-001 and UPL-RBL-002) were taken to characterize the upland conditions of the Project area. The upland representative data forms and photographs are provided as **Appendix B**.

3.1 WETLAND DELINEATION

3.1.1 PRELIMINARY SOILS EVALUATION

According to the USDA/NRCS Web Soil Survey, four soil map units are mapped within the Project survey area (USDA NRCS, 2023a and 2023b). Of these, one was identified as hydric soil and three were identified as containing hydric inclusions. 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 (%)
Celina	CfB	Celina-Urban land complex, 2 to 6 percent slopes	Moraines, till plains	Yes*	Kokomo 5%
Crosby	CrB	Crosby silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	Recessional moraines, ground moraines, water-lain moraines	Yes*	Kokomo-Drained 10%
	CsB	Crosby-Urban land complex, 2 to 6 percent slopes	Till plains	Yes*	Kokomo 5%
Kokomo	Ko	Kokomo silty clay loam, 0 to 2 percent slopes	Depressions on till plains	Yes	Kokomo 95%

Yes* = Hydric inclusion present

3.1.2 NATIONAL WETLANDS INVENTORY MAP REVIEW

According to NWI data covering the Project location, the Project survey area contains no mapped NWI wetlands.

3.1.3 DELINEATED WETLANDS

No wetlands were identified during the field survey. Two representative uplands (UPL-RBL-001 and UPL-RBL-002) were taken to characterize the project site. Data forms and associated photographs are provided in **Appendix B**.

3.2 STREAM DELINEATION

No Streams were identified within the Project survey area.

3.2.1 OEPA STREAM ELIGIBILITY

The Project occurs across the Kian Run-Scioto River Watershed (HUC-12: 050600012302), which is designated by 401 WQC Eligibility as both “possibly eligible” and “ineligible”. However, no streams were identified within the Study area within the watershed. The 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 or FEMA regulated floodways were located within the Project survey area (FEMA, 2008).

3.4 PONDS

During the field survey, AECOM did not identify any ponds within the Project survey area.

3.5 UPLAND DRAINAGE FEATURES PONDS

During the field survey, AECOM did not identify any UDFs within the Project survey area.

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 and urban habitat. 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 C**.

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, including residential properties and commercial properties, were observed within the Project vicinity. These landscaped areas within the Project survey area and adjacent areas are frequently mowed grasses and forbs.	3.90	98.24%
Urban	Urban areas are areas developed with residential and commercial land uses, including roads, buildings and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	0.07	1.76%
Totals:		3.97	100%

3.7 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

On November 9, 2023, coordination letters were sent to USFWS and the ODNR Ohio Natural Heritage Program (ONHP) and Division of Wildlife (DOW), seeking an environmental review of the Project for potential impacts to threatened and endangered species.

A response from the USFWS was received on November 9, 2023, but the ODNR has not yet provided their response for state listed species with the Project area. Due to the emergency nature of this Project, ODNR agency coordination from an adjacent project within Franklin County (Beatty – Canal Street 138 kV Transmission Line Project) was utilized to complete a preliminary assessment of potential listed state species and their critical habitat within range of the Project. According to a response letter received from the USFWS three federally listed bat species were identified within range of the Project area. According to the ODNR response letter for the Beatty – Canal Street 138 kV Transmission Line Project, 26 state listed species (three bat species, nine fish species, 14 mussel species, and no avian species) were identified within range of the Project area.

The USFWS response letter and a copy of previous ODNR official agency correspondence for Beatty – Canal Street 138 kV Transmission Line Project utilized for this Project have been provided as **Appendix D**. Upon receipt of the official response from the ODNR, an addendum memo will be provided to document any changes for potential state listed species within the Project area.

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 Area are provided as **Appendix C**.

**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	<p><u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves.</p> <p><u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.</p>	<p><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.</p> <p><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.</p> <p>Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.</p>	April 1 – September 30	<p><u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30).</p> <p><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 (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.</p>	<p><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.</p> <p><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.</p>
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	Endangered	<p><u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves.</p> <p><u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.</p>	<p><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.</p> <p><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.</p> <p>Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.</p>	April 1 – September 30	<p><u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30).</p> <p><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 (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.</p>	<p><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.</p> <p><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.</p>
Little brown bat (<i>Myotis lucifugus</i>)	Endangered	NA	<p><u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves.</p> <p><u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.</p>	<p><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.</p> <p><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.</p> <p>Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.</p>	April 1 – September 30	<p><u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30).</p> <p><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 (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.</p>	<p><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.</p> <p><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.</p>

**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
Tricolored bat (<i>Perimyotis subflavus</i>)	Endangered	Proposed	<p><u>Summer habitat</u> During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves.</p> <p><u>Hibernaculum(a)</u> During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.</p>	<p><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.</p> <p><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.</p> <p>Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance)*.</p>	April 1 – September 30	<p><u>Summer habitat</u> ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30).</p> <p><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 (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.</p>	<p><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.</p> <p><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.</p>
Fish							
Goldeye (<i>Hiodon alosoides</i>)	Endangered	None	Perennial Streams	No streams present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Iowa darter (<i>Etheostoma exile</i>)	Endangered	None	Perennial Streams	No streams or lakes present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Lake chubsucker (<i>Erimyzon sucetta</i>)	Threatened	None	Perennial Streams	No lakes, ponds, swamps, or streams were identified in the Project survey area.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Northern brook lamprey (<i>Ichthyomyzon fossor</i>)	Endangered	None	Perennial Streams	No streams identified within the Project survey area.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Paddlefish (<i>Polyodon spathula</i>)	Threatened	None	Perennial Streams	No streams present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Popeye shiner (<i>Notropis ariommus</i>)	Endangered	None	Perennial Streams	No streams present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Shortnose gar (<i>Lepisosteus platostomus</i>)	Endangered	None	Perennial Streams	No streams present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Spotted darter (<i>Etheostoma maculatum</i>)	Endangered	None	Perennial Streams	No streams present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Tonguetied minnow (<i>Exoglossum laurae</i>)	Endangered	None	Perennial Streams	No streams present.	<u>In-Water Work</u> March 15 – June 30	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species	No
Mussels							

**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
Clubshell (<i>Pleurobema clava</i>)	Endangered	Endangered	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Elephant-ear (<i>Elliptio crassidens crassidens</i>)	Endangered	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Long solid (<i>Fusconaia maculata maculate</i>)	Endangered	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>)	Endangered	Endangered	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Ohio pigtoe (<i>Pleurobema cordatum</i>)	Endangered	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Pocketbook (<i>Lampsilis ovata</i>)	Endangered	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Pondhorn (<i>Unio merus tetralasmus</i>)	Threatened	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Purple cat's paw (<i>Epioblasma o. obliquata</i>)	Endangered	Endangered	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Rabbitsfoot (<i>Quadrula cylindrica cylindrica</i>)	Threatened	Threatened	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Rayed bean (<i>Villosa fabalis</i>)	Endangered	Endangered	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Salamander mussel (<i>Simpsonaias ambigua</i>)	Threatened	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Snuffbox (<i>Epioblasma triquetra</i>)	Endangered	Endangered	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No
Washboard (<i>Megaloniais nervosa</i>)	Endangered	None	Perennial Streams	No streams present.	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.	No

*2023 Joint Guidance – Refers to the 2023 ODNr DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing, a copy of the guidance is provided within **Appendix E** of this memo.

Protected Species Agency Summary –

Based on general observations during the ecological field survey, forested clearing is not anticipated as there is no occurrence of forested habitat within the Project survey area. 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. If trees must be cut during the summer months, the ODNR recommends that a mist net survey could be completed for the Indiana bat, northern long-eared bat, little brown bat, and the tricolored bat between June 1 and August 15. 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 2023 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing within 0.25-mile of the Project survey (**Appendix E**). No caves, mines, and/or karst features were identified within a 0.25-miles radius of the Project Area that are anticipated to provide suitable hibernacula for cave-dwelling bats. As per ODNR and USFWS guidance, further coordination regarding potential hibernaculum is only necessary if the habitat assessment find potential habitat within 0.25-mile of the Project survey area. Therefore, no further coordination was necessary with either the ODNR and/or USFWS regarding the listed bat species. Results of the desktop habitat assessment have been included within **Appendix A**.

Regarding the nine fish and 14 mussel species, freshwater streams are considered habitat for these species and there is an absence of stream within the Project area. Therefore, the Project is not likely to impact these species or their habitat.

A due diligence review was completed for avian habitat within the project area even though correspondence from the ODNR on another project did not list any avian species listed in the response. Based on the field investigation completed for the Project, the existing land use is landscape areas (approximately 13-acres in size) bordered by residential, commercial, and rail roads. Due to the maintained grass surrounded by urbanized areas, lack of wetland communities, and other woody vegetation near open waterbodies, the Project area does not provide suitable nesting opportunities for a variety of state listed species that would commonly be within range of this Project.

4.0 SUMMARY

The ecological field survey of the Project survey area did not identify any streams or wetlands. Representative upland data forms as well as photo documentation are provided as **Appendix B**.

Of the twenty-six state and/or federal listed threatened or endangered species within range of the Project survey area, no habitat for any of the listed species were identified within the Project survey area. If tree clearing activities are required; the ODNR and USFWS recommends clearing of trees to be completed between

October 1 and March 31 to avoid adverse effects to the listed bat species. As the T&E review was completed utilizing results of an adjacent project, an addendum report will be provided upon receipt of the ODNR response to reflect any changes identified in the responses.

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

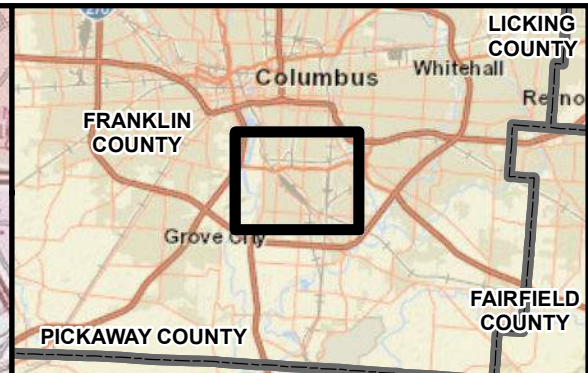
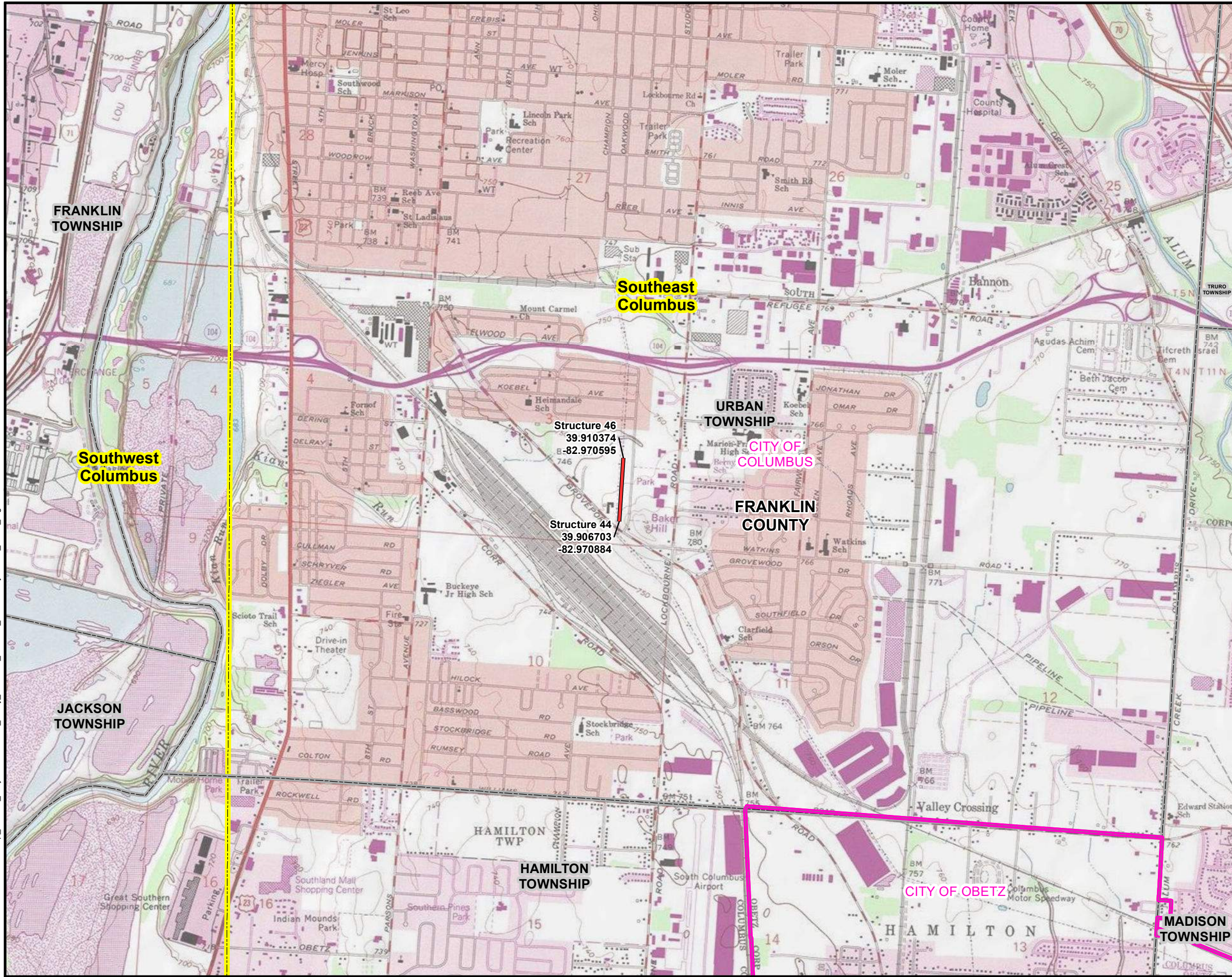
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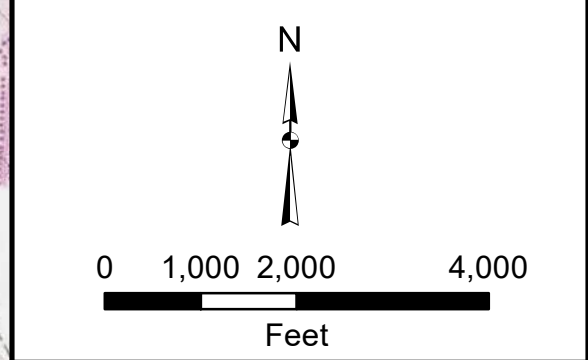
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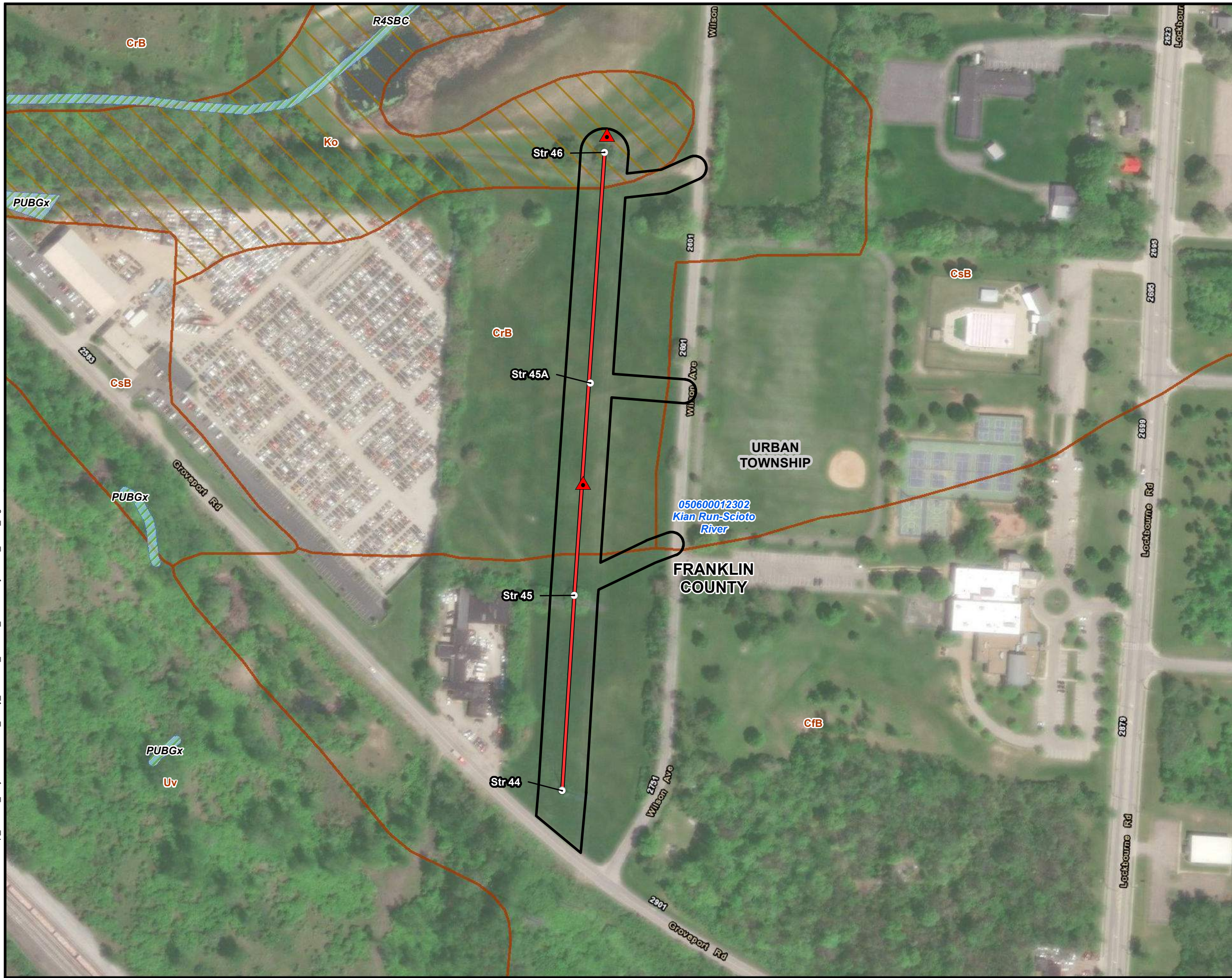
Legend

- Bixby-Marion 138kV Transmission Line
- City Boundary
- Township Boundary
- County Boundary
- Ohio USGS 7.5' Topographic Quadrangle



Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project

FIGURE 1 PROJECT OVERVIEW	
DATE: 11/9/2023	1 INCH = 2,000 FEET
CREATED BY: CJT	CHECKED BY: JH
JOB NO.: 60720174	AECOM



Legend

- Structure
- ▲ Upland Data Point
- Bixby-Marion 138kV Transmission Line
- ▭ Project Study Area
- ▨ NWI Wetland (USFWS)
- ▭ HUC 12 (USGS)
- ▭ SSURGO Soil Map Unit (NRCS)
- ▨ Hydric SSURGO Soil Map Unit (NRCS)

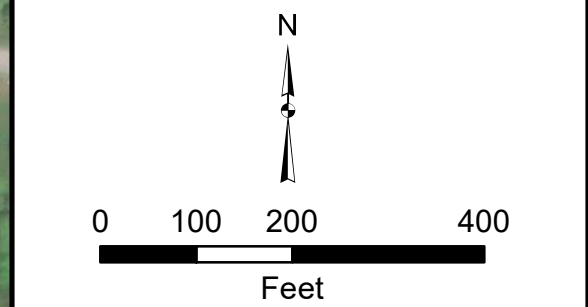
Soil Map Unit Description

CfB: Celina-Urban land complex, 2 to 6 percent slopes

CrB: Crosby silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes

CsB: Crosby-Urban land complex, 2 to 6 percent slopes

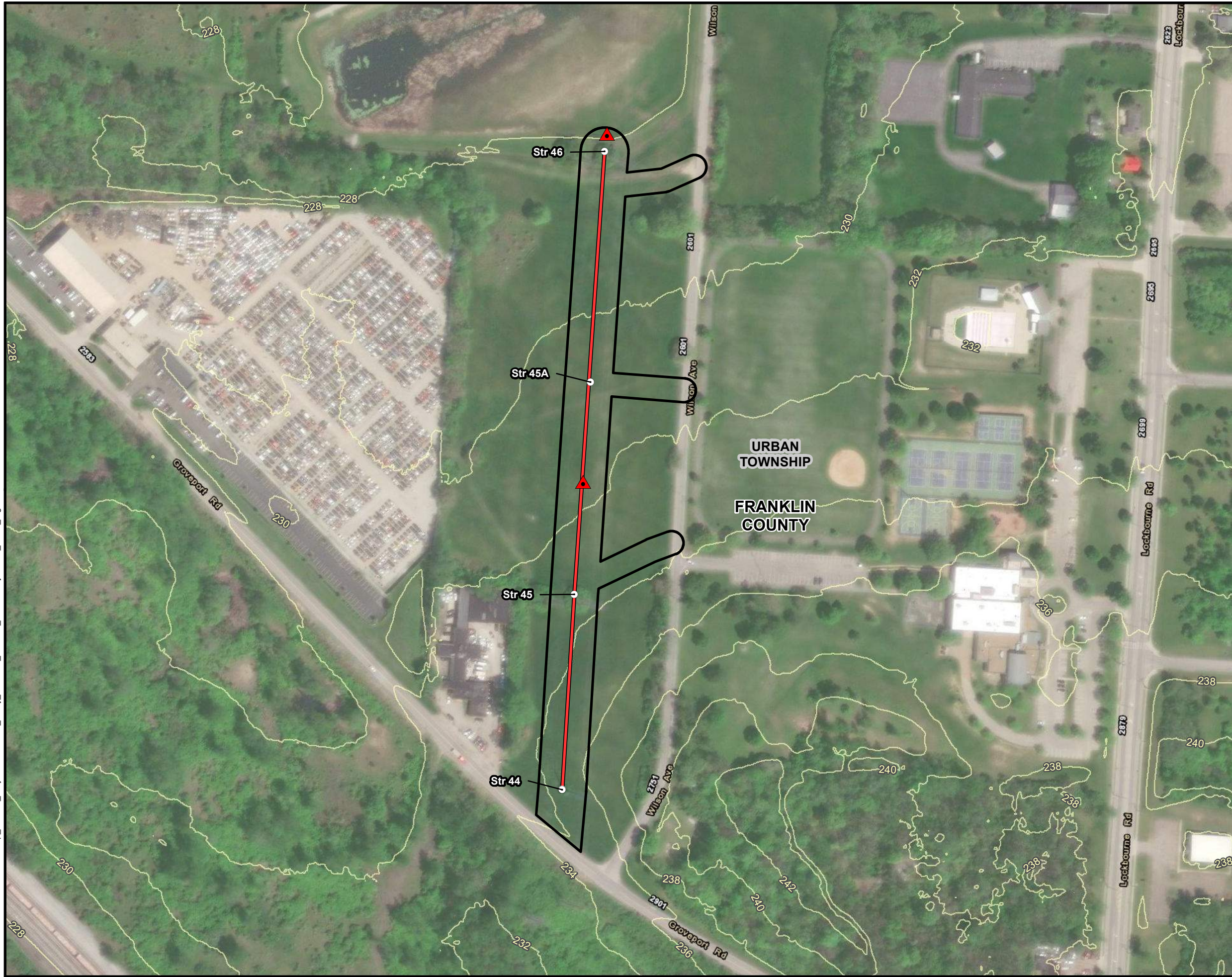
Ko: Kokomo silty clay loam, 0 to 2 percent slopes



AMERICAN ELECTRIC POWER
 Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project

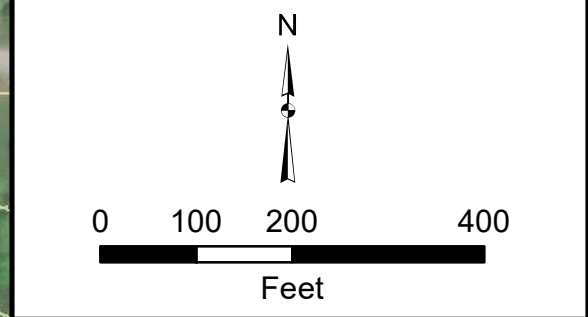
FIGURE 2
 SOIL MAP AND
 NATIONAL WETLANDS INVENTORY MAP

DATE: 11/9/2023	1 INCH = 200 FEET
CREATED BY: CJT	CHECKED BY: JH
JOB NO.: 60720174	AECOM



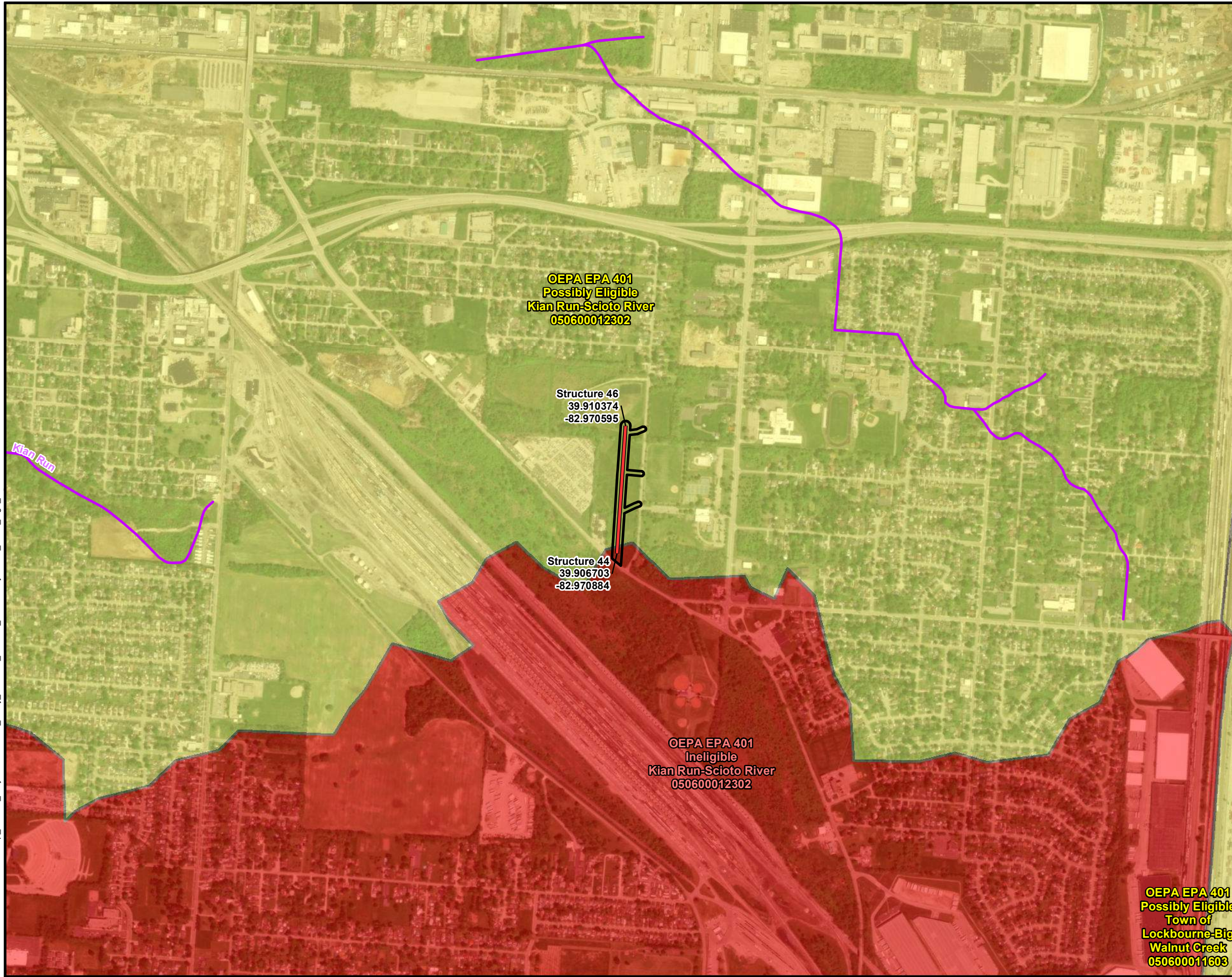
Legend

- Structure
- ▲ Upland Data Point
- Bixby-Marion 138kV Transmission Line
- Contour (2ft)
- ▭ Project Study Area



AMERICAN ELECTRIC POWER
 Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project

FIGURE 3 WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 11/9/2023	1 INCH = 200 FEET
CREATED BY: CJT	CHECKED BY: JH
JOB NO.: 60720174	AECOM



Legend

- Bixby-Marion 138kV Transmission Line
- NHD Stream (USGS)
- Project Study Area

OEPA Eligibility:

- Ineligible
- Possibly Eligible

N

0 500 1,000 2,000

Feet

Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project

FIGURE 4	
STREAM ELIGIBILITY MAP	
DATE: 11/9/2023	1 INCH = 1,000 FEET
CREATED BY: CJT	CHECKED BY: JH
JOB NO.: 60720174	AECOM

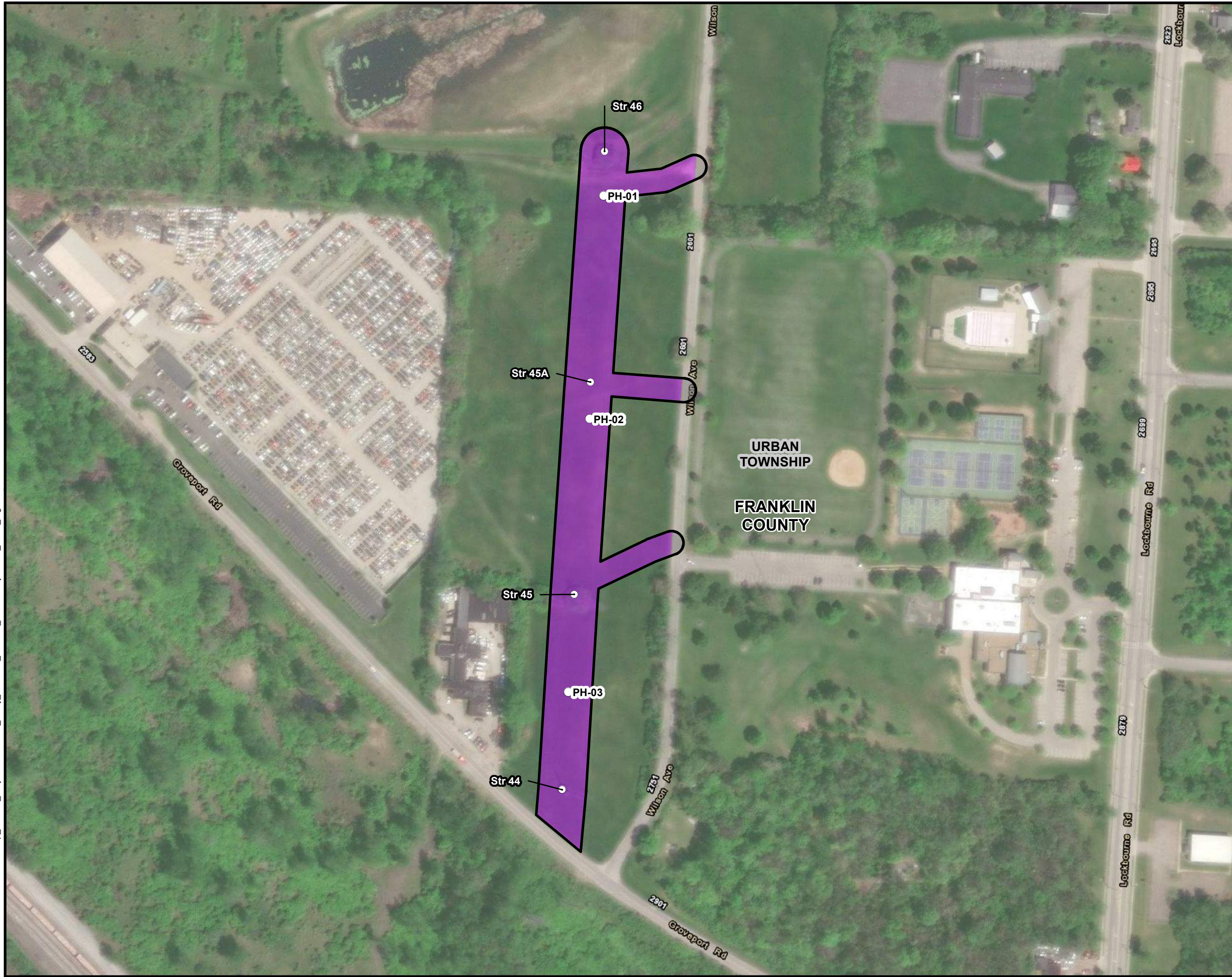
**OEPA EPA 401
 Possibly Eligible
 Town of
 Lockbourne-Big
 Walnut Creek
 050600011603**

**OEPA EPA 401
 Possibly Eligible
 Kian Run-Scioto River
 050600012302**

Structure 46
 39.910374
 -82.970595

Structure 44
 39.906703
 -82.970884

**OEPA EPA 401
 Ineligible
 Kian Run-Scioto River
 050600012302**

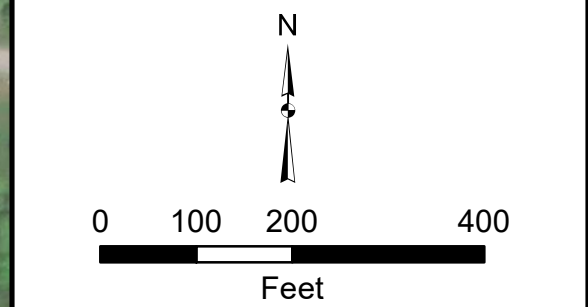


Legend

- Photo Location
- Structure
- ▭ Project Study Area

Vegetative Community Type

- Landscaped
- Urban



AMERICAN ELECTRIC POWER
 Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project

FIGURE 5
 VEGETATIVE COMMUNITIES ASSESSMENT MAP

DATE: 11/9/2023	1 INCH = 200 FEET
CREATED BY: CJT	CHECKED BY: JH
JOB NO.: 60720174	AECOM

APPENDIX A

DESKTOP ASSESSMENT FOR WINTER BAT HABITAT



American Electric Power
8600 Smith's Mill Road
New Albany, OH 43054;
ajtoohey@aep.com

November 9, 2023

Attention: Mr. Mike Pettegrew
Ohio Department of Natural Resources
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693

Transmitted via email: environmentalreviewrequest@dnr.state.oh.us;
NHDRequest@dnr.state.oh.us

**Reference: Project Review Request
Bixby-Marion 138 kV Transmission Line (Structures 44 to 46) Project,
City of Columbus, Franklin County, Ohio**

Mr. Pettegrew:

AEP Ohio Transmission Company, Inc. (AEP), is formally requesting that the Ohio Department of Natural Resources (ODNR) completes an environmental review and a Natural Heritage Database (NHD) search request for the proposed Bixby-Marion 138 kV Transmission Line (Structures 44 to 46) Project (Project) located in Franklin County, Ohio (OH). The project consists of remedial actions along 0.27-miles of the existing Bixby-Marion 138 kilovolt (kV) transmission line as part of the Bixby-Marion 138 kV Transmission Line (Structures 44 to 46) Project within the City of Columbus, Franklin County, OH. The proposed survey area is approximately 3.98 acres and located on the United States Geological Survey Southeast Columbus, OH 7.5-minute topographical quadrangle as displayed on the Topographic Project Overview (Figure 1).

AECOM Technical Services, Inc. (AECOM) completed a desktop review of publicly available data to identify abandoned underground mines within 0.25-mile of the Project area. The data sources utilized included USGS topographical maps, aerial photography, and the ODNR's Division of Mineral Resources and Geological Survey Data for Known Mining Activity and Karst Geology/Sinkholes as shown on Figures 1 and 2. Based on the available desktop resources, no underground mines were identified within 0.25-miles radius of the Project area. However, the Project site is located within karst geology, but no known karst voids are identified within 0.25-miles radius. Additionally, the surrounding land use is residential, commercial/industrial, and/or railroads properties that would be absent of underground voids or voids previously identified. Therefore, it is anticipated that there are not suitable hibernacula within 0.25 mile of the Project area.

AECOM respectfully requests the results of the ODNR's environmental review, including results of the ODNR Natural Heritage Database search (see attached NHD Request Form) at your earliest convenience. If you have questions or need additional information regarding the Project, please contact me at the phone number or email below. Thank you for your assistance with this request.

Sincerely,

Brian Miller
Environmental Project Manager

CC: Amy J. Toohey
Environmental Specialist-Consultant

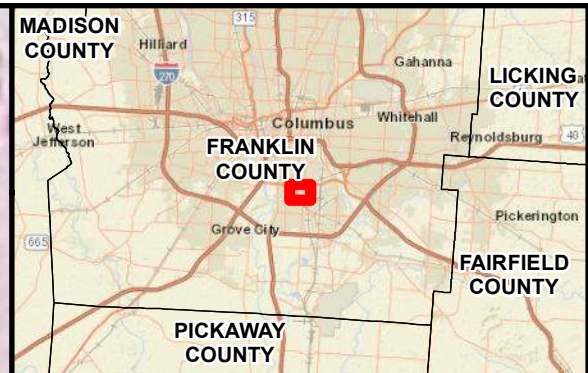
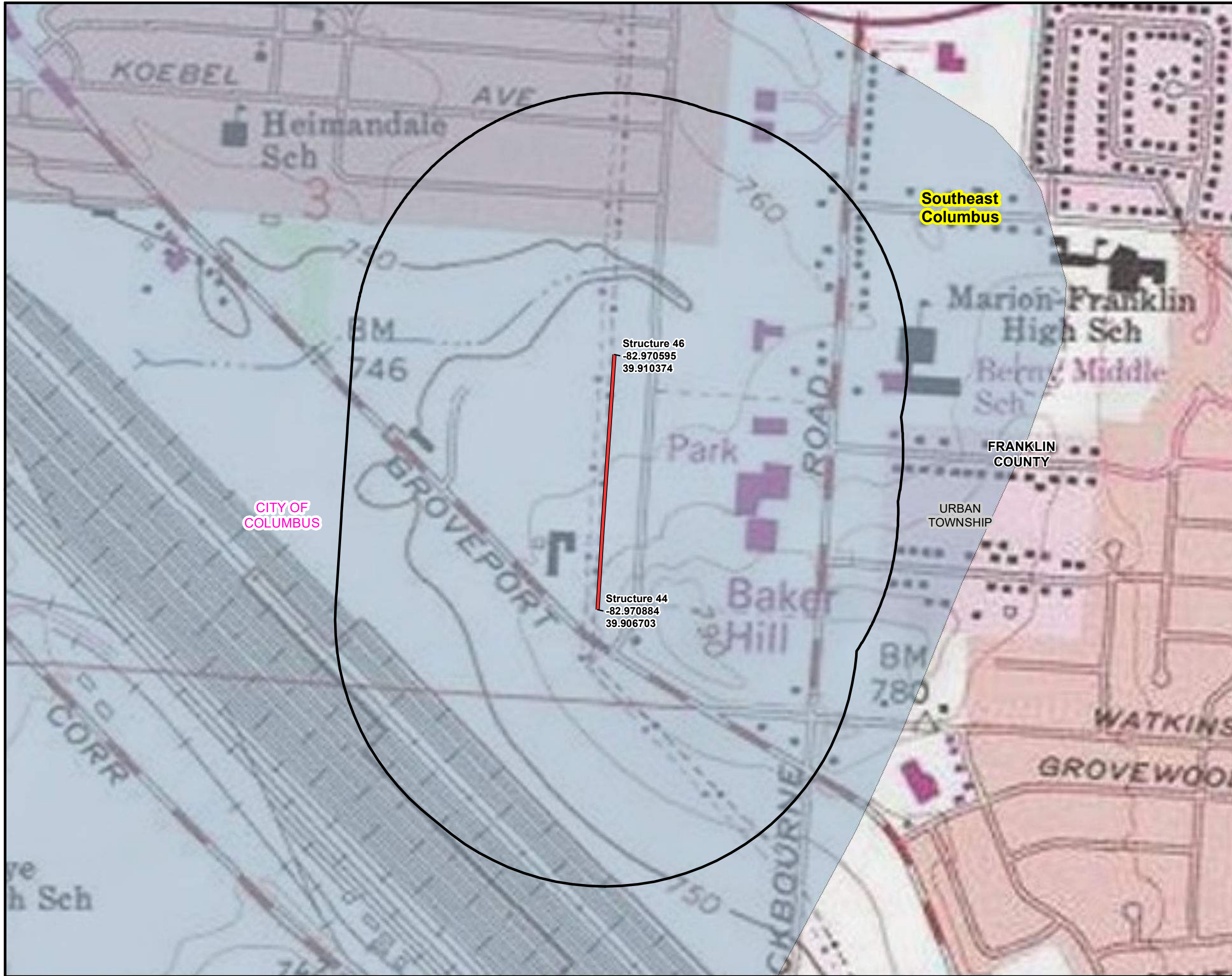
BOUNDLESS ENERGY™

Phone: (412-667-9172); brian.miller1@aecom.com

Phone: (614-565-1480); ajtoohey@aep.com

Attachments (3): Figure 1 – Topographic Project Overview; Figure 2 – Aerial Project Overview; NHD Request Form; Electronic Shapefiles(.shp)

BOUNDLESS ENERGY™



Legend

- Bixby-Marion 138kV Transmission Line
- Quarter Mile Review Area

Karst Geology

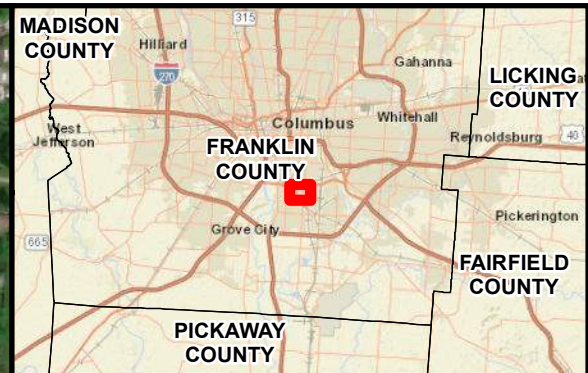
- Silurian- and Devonian-age carbonate bedrock overlain by more than 20 feet of glacial drift and/or alluvium
- City Boundary
- Township Boundary
- County Boundary
- Ohio USGS 7.5' Topographic Quadrangle

N



0 250 500 1,000 Feet

Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project






FIGURE 1	
TOPOGRAPHIC PROJECT OVERVIEW	
DATE: 11/8/2023	1 INCH = 500 FEET
CREATED BY: CJT	CHECKED BY: BG
JOB NO.:60720174	AECOM




Legend

-  Bixby-Marion 138kV Transmission Line
-  Quarter Mile Review Area

Karst Geology

-  Silurian- and Devonian-age carbonate bedrock overlain by more than 20 feet of glacial drift and/or alluvium
-  City Boundary
-  Township Boundary
-  County Boundary
-  Ohio USGS 7.5' Topographic Quadrangle

N



0 250 500 1,000

Feet



 *Bixby-Marion 138kV Transmission Line (Structures 44 to 46) Project*

FIGURE 2	
AERIAL PROJECT OVERVIEW	
DATE: 11/8/2023	1 INCH = 500 FEET
CREATED BY: CJT	CHECKED BY: BG
JOB NO.:60720174	AECOM

APPENDIX B

**USACE WETLAND DETERMINATION DATA FORM – UPLAND REPRESENTATIVE AND
PHOTOGRAPHIC RECORD**

Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
----------------------------	---	--------------------------------

UPL-RBL-001	
Date: November 08, 2023	
Description: Upland Facing North	

UPL-RBL-001	
Date: November 08, 2023	
Description: Upland Facing East	

Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
----------------------------	---	--------------------------------

UPL-RBL-001
Date: November 08, 2023
Description: PEM wetland Category 1 Facing South



UPL-RBL-001
Date: November 08, 2023
Description: Upland Facing West



Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
----------------------------	---	--------------------------------

UPL-RBL-001
Date: November 08, 2023
Description: Upland Facing Soil



UPL-RBL-002
Date: November 08, 2023
Description: Upland Facing North



Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
----------------------------	---	--------------------------------

UPL-RBL-002
Date: November 08, 2023
Description: Upland Facing East



UPL-RBL-002
Date: November 08, 2023
Description: Upland Facing South



Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
----------------------------	---	--------------------------------

UPL-RBL-002
Date: November 08, 2023
Description: Upland Facing West



UPL-RBL-002
Date: November 08, 2023
Description: Upland Facing Soil



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Bixby-Marion City/County: Franklin Sampling Date: 08-Nov-23
 Applicant/Owner: AEP State: OH Sampling Point: **UPL-RBL-001**
 Investigator(s): RBL, MRK Section, Township, Range: S 3 T 4N R 22W
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave
 Slope: 1.0% / 0.6° Lat.: 39.91048 Long.: -82.970586 Datum: NAD83
 Soil Map Unit Name: Ko: Kokomo silty clay loam, 0 to 2 percent slopes NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
 This upland data point is representative of the surrounding area and is located in a small depression in the ROW. The surrounding area is a mowed field, dominated by upland vegetation.

VEGETATION - Use scientific names of plants.

Stratum (Plot size: _____)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> radius)				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
1. _____	0	<input type="checkbox"/> 0.0%	_____	
2. _____	0	<input type="checkbox"/> 0.0%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
	0	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> radius)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>50</u> x 4 = <u>200</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>110</u> (A) <u>380</u> (B) Prevalence Index = B/A = <u>3.455</u>
1. _____	0	<input type="checkbox"/> 0.0%	_____	
2. _____	0	<input type="checkbox"/> 0.0%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
	0	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>5'</u> radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Poa pratensis</u>	50	<input checked="" type="checkbox"/> 45.5% FAC	_____	
2. <u>Dactylis glomerata</u>	35	<input checked="" type="checkbox"/> 31.8% FACU	_____	
3. <u>Trifolium pratense</u>	15	<input type="checkbox"/> 13.6% FACU	_____	
4. <u>Plantago major</u>	10	<input type="checkbox"/> 9.1% FAC	_____	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
6. _____	0	<input type="checkbox"/> 0.0%	_____	
7. _____	0	<input type="checkbox"/> 0.0%	_____	
8. _____	0	<input type="checkbox"/> 0.0%	_____	
9. _____	0	<input type="checkbox"/> 0.0%	_____	
10. _____	0	<input type="checkbox"/> 0.0%	_____	
	110	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> radius)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	
2. _____	0	<input type="checkbox"/> 0.0%	_____	
	0	= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)
 A preponderance of hydrophytic vegetation was not present at the time of sampling.

SOIL

Sampling Point: **UPL-RBL-001**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	2.5Y	3/3	100				Silty Clay Loam	15% mixed rock
14-16	2.5Y	4/4	100				Silty Clay Loam	25% mixed rock

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<p>Indicators for Problematic Hydric Soils ³:</p> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
The soil profile does not meet the criteria for any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	<p>Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:
No primary or secondary wetland hydrology indicators were present at data point.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Bixby-Marion City/County: Franklin Sampling Date: 08-Nov-23
 Applicant/Owner: AEP State: OH Sampling Point: **UPL-RBL-002**
 Investigator(s): RBL, MRK Section, Township, Range: S 3 T 4N R 22W
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): convex
 Slope: 1.0% / 0.6° Lat.: 39.908464 Long.: -82.970758 Datum: NAD83
 Soil Map Unit Name: CrB: Crosby silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
 This upland data point is representative of the existing conditions in the ROW. It is located in a mowed grassy field dominated by upland vegetation.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:	
1. _____	0	<input type="checkbox"/> 0.0%	_____	Number of Dominant Species That are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____	0	<input type="checkbox"/> 0.0%	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	0	<input type="checkbox"/> 0.0%	_____	Percent of dominant Species That Are OBL, FACW, or FAC:	<u>50.0%</u> (A/B)
4. _____	0	<input type="checkbox"/> 0.0%	_____		
5. _____	0	<input type="checkbox"/> 0.0%	_____		
	0	= Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Prevalence Index worksheet:	
1. _____	0	<input type="checkbox"/> 0.0%	_____	Total % Cover of:	Multiply by:
2. _____	0	<input type="checkbox"/> 0.0%	_____	OBL species <u>0</u>	x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/> 0.0%	_____	FACW species <u>0</u>	x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/> 0.0%	_____	FAC species <u>60</u>	x 3 = <u>180</u>
5. _____	0	<input type="checkbox"/> 0.0%	_____	FACU species <u>55</u>	x 4 = <u>220</u>
	0	= Total Cover		UPL species <u>0</u>	x 5 = <u>0</u>
	0	= Total Cover		Column Totals:	<u>115</u> (A) <u>400</u> (B)
	115	= Total Cover		Prevalence Index = B/A =	<u>3.478</u>
Herb Stratum (Plot size: <u>5'</u> radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u>Poa pratensis</u>	50	<input checked="" type="checkbox"/> 43.5%	FAC	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Dactylis glomerata</u>	40	<input checked="" type="checkbox"/> 34.8%	FACU	<input type="checkbox"/> 2 - Dominance Test is > 50%	
3. <u>Trifolium pratense</u>	15	<input type="checkbox"/> 13.0%	FACU	<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 ¹	
4. <u>Plantago major</u>	5	<input type="checkbox"/> 4.3%	FAC	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Setaria pumila</u>	5	<input type="checkbox"/> 4.3%	FAC	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____	0	<input type="checkbox"/> 0.0%	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	0	<input type="checkbox"/> 0.0%	_____		
8. _____	0	<input type="checkbox"/> 0.0%	_____		
9. _____	0	<input type="checkbox"/> 0.0%	_____		
10. _____	0	<input type="checkbox"/> 0.0%	_____		
	0	= Total Cover			
Woody Vine Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
1. _____	0	<input type="checkbox"/> 0.0%	_____		
2. _____	0	<input type="checkbox"/> 0.0%	_____		
	0	= Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)
 A preponderance of hydrophytic vegetation was not present at the time of sampling.

¹Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **UPL-RBL-002**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	2.5Y	3/3	100				Silty Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<p>Indicators for Problematic Hydric Soils ³:</p> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) <p>³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
The soil profile does not meet the criteria for any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	<p>Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:
No primary or secondary wetland hydrology indicators were present at data point.

APPENDIX C
HABITAT PHOTOGRAPHIC RECORD

Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
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PH-01	
Date: November 08, 2023	
Description: Landscaped Facing East	

PH-02	
Date: November 08, 2023	
Description: Landscaped Facing North	

Client Name: AEP	Site Location: Bixby – Marion 138kV Transmission Line (Structures 44 to 46) Project	Project No. 60720174
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PH-03
Date: November 08, 2023
Description: Landscaped Facing South



APPENDIX D
AGENCY RESPONSE LETTERS



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

October 18, 2023

Anna Findish
AECOM
707 Grant Street
Pittsburgh, Pennsylvania 15219

Re: 23-1088_AEP Beatty-Canal Street 138 kV Transmission Line

Project: The proposed project involves the replacement of four existing structures along 0.17 miles of the easting Beatty Canal Street 138 kV transmission line.

Location: The proposed project is located in Jackson Township and the City of Columbus, 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: The Natural Heritage Database has the following data within one mile of the project area:

Lark Sparrow (*Chondestes grammacus*), E
Tippicanoe Darter (*Etheostoma tippecanoe*), SC
Black Sandshell (*Ligumia recta*), SC
Threehorn Wartyback (*Obliquaria reflexa*), SC
Clubshell (*Pleurobema clava*), E, FE
Fawnsfoot (*Truncilla donaciformis*), SC
Deertoe (*Truncilla truncata*), SC

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Location records for the species listed above are provided in a shapefile attachment to this letter. Species location information will not be published or distributed beyond the scope of the project description on the data request form.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "[OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING](#)". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

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

Federally Endangered

clubshell (*Pleurobema clava*)

rayed bean (*Villosa fabalis*)

northern riffleshell (*Epioblasma torulosa rangiana*)

snuffbox (*Epioblasma triquetra*)

purple cat's paw (*Epioblasma o. obliquata*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)

pocketbook (*Lampsilis ovata*)

long solid (*Fusconaia maculata maculate*)

washboard (*Megaloniaias nervosa*)

Ohio pigtoe (*Pleurobema cordatum*)

State Threatened

pondhorn (*Uniomerus tetralasmus*)

Salamander Mussel (*Simpsonaias ambigua*)

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 fossor*)

tonguetied minnow (*Exoglossum laurae*)

popeye shiner (*Notropis ariommus*)

State Threatened

lake chubsucker (*Erimyzon sucetta*)

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.

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

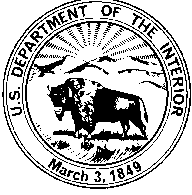
Water Resources: The Division of Water Resources has the following comment.

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator

United States Department of the Interior



FISH AND WILDLIFE SERVICE

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



November 9, 2023

Project Code: 2024-0013991

Dear Bridgette Glass:

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

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

Seasonal Tree Clearing for Federally Listed Bat Species: The proposed project is in the vicinity of one or more confirmed records of Indiana bats and/or northern long-eared bats. 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. Please note that, because Indiana bat and/or northern long-eared bat presence has already been confirmed in the project vicinity, any additional summer surveys would not constitute presence/absence surveys for these species.

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.

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

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

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

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

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

Sincerely,

A handwritten signature in blue ink that reads "Scott Hicks". The signature is written in a cursive style and is positioned above the printed name.

Scott Hicks
Acting Field Office Supervisor

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

APPENDIX E
2023 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 2023

This document has been updated with new state guidance for the 2023 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 2023). This protocol, **with minor modifications referenced below**, can also be used in Ohio for the 2023 field season and includes surveying for the state-listed little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*).

According to the updated federal range-wide guidelines, presence/probable absence net surveys for northern long-eared 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, following the northern long-eared bat level of effort will qualify as a presence/ probable absence survey for both species. However, if a project area is eligible for a presence/absence survey for both species, following the Indiana bat level of effort will not qualify the survey for a northern long-eared bat presence/ probable absence survey. Please note that the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023) 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 ODOW.

Due to the reclassification of the northern long-eared bat on March 31, 2023, the previous 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 a determination key (Dkey) for the northern long-eared bat. **The Dkey cannot be used to replace consultation with ODNR-DOW.** Project proponents should coordinate directly with the ODNR-DOW and the OHFO for project technical assistance for all federally listed species, including the Indiana bat and northern long-eared bat.

The tricolored bat is listed as endangered by ODNR-DOW. Additionally, the USFWS published a proposed rule to list the tri-colored bat as endangered on September 14, 2022. The USFWS is scheduled to publish a final rule on the tricolored bat's status by the end of September 2023 which could affect future project development. Therefore, in anticipation of this listing we recommend that project proponents coordinate with the OHFO in addition to ODNR-DOW to determine if the project could benefit from formal coordination with USFWS for tricolored bat. The USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023) 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 maximum 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 2023 season. Surveys should follow guidelines laid out in the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023) with the following exceptions:

- Ohio survey dates are June 1 – August 15, 2022
- 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 maximum 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.**

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.

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

² State listing as endangered effective July 1, 2020

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 (2023). All presence/absence combined mist-net and acoustic surveys conducted for state listed bat species should follow the maximum 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 two sizes of bands—2.4 mm and 4.2 mm. The 2.4 mm split metal bat ring made of aluminum alloy is suitable for banding small bats. This band must be placed on all captured Indiana, northern long-eared, little brown, and tricolored bats. The larger 4.2 mm band is suitable for silver-haired (*Lasiurus noctivagans*), big brown (*Eptesicus fuscus*), and hoary (*Lasiurus 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 sized band.
- 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 and/or northern long-eared 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 or tricolored 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 2022 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-2020-2021>) 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 (DOW) 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) –

- For state-listed endangered species other than the Indiana bat and northern long-eared bat, a recommendation of 0.25-mile tree cutting buffer around all known entrances to protect existing conditions at the hibernaculum(a). The U.S. Fish and Wildlife Service (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. If the project involves subsurface disturbance, consultation with DOW is required.
- Limited tree cutting may be permitted within the buffer. Coordinate with DOW.

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-November 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, but only includes criteria for Indiana bat hibernacula.

Step 2: When conducted, a presence/absence survey must follow current DOW guidelines.

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 (or 2.5 miles for tricolored bats) of the capture site if a roost is not located.
- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 2.5 miles of a roost tree if located.

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 bats that are only state-listed endangered: Limited tree cutting in summer may be permitted after consultation with 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 ≥ 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 including Indiana bat and northern long-eared bats: Follow maximum detector nights as outlined in the federal guidance (for northern long-eared bat).

Northern Long-eared 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 14 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 8 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:

- 4 detectors for 3 nights and 1 detector for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 7 nights each (can sample the same location or move within the site)
- 1 detector for 14 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 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 8 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)

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 maximum net nights as outlined in the federal guidance (for northern long-eared 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 Indiana bat and/or northern long-eared 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.

How does take of northern long-eared bats differ from Indiana bats?

Under Ohio law, there is no exemption for take of any listed bat species.

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 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.