

Construction Notice Speidel-Barnesville 138 kV Cut-in to Pumpkin Station Project



An **AEP** Company

BOUNDLESS ENERGYSM

PUCO Case No. 23-0694-EL-BNR

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

Submitted by:
AEP Ohio Transmission Company, Inc.

June 29, 2023

Construction Notice for Speidel-Barnesville 138 kV Cut-in to Pumpkin Station Project

Construction Notice

AEP Ohio Transmission Company, Inc. Speidel-Barnesville 138 kV Cut-in to Pumpkin Station Project

4906-6-05

AEP Ohio Transmission Company, Inc. (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 Speidel-Barnesville 138 kV Cut-in to Pumpkin Station Project (the “Project”) in the Village of Barnesville, Belmont County, Ohio. The purpose of the Project is to provide looped 138 kV service to the Pumpkin distribution Station from the existing Speidel-Barnesville 69 kV transmission line (approved in Case No. 16-0437-EL-BTX and the amendment filing 19-1067-EL-BTA). The Speidel-Barnesville line currently operates at 69 kV but was built to 138 kV standards. The single circuit cut-in will also operate initially at 69 kV but will be capable of 138 kV operation. The length of the proposed Project is less than 0.2 mile. The location of the Project is shown on Figure 1 and Figure 2 in Appendix A.

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

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

The Project has been assigned PUCO Case No. 23-0694-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 necessary in order to serve a request from AEP Ohio for a new, non-jurisdictional Pumpkin 138/12 kV distribution station in Barnesville, Ohio. The new Pumpkin Station will replace the aging

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Barnesville Station. Attempting to rebuild the existing Barnesville Station at its current location was not a viable option due to space constraints at the station and its congested location in the middle of town.

AEP Ohio has requested a new load delivery point due to capacity loading limits at the Barnesville 138/12 kV substation. The station is limited by its capacity and has an antiquated protection scheme, as well as equipment that is aging and due for replacement. In addition, Barnesville Station is served radially, meaning any issues along the 0.4-mile radial tap will cause the station to lose service entirely. The looped transmission configuration will result in improved reliability for local AEP Ohio customers.

Failure to move forward with the Project will result in an inability to address aging equipment and reliability issues.

The need and solution were presented and reviewed with stakeholders at the November 19, 2021 and January 21, 2022 PJM SSRTEP Western Meeting. The project was subsequently assigned PJM supplemental project number s2688. This Project will be included in the AEP Ohio Transmission Company, Inc. most recent 2023 Supplemental Long-Term Forecast Report (See Appendix B).

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 and proposed transmission lines and substations 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 is located on Company-owned property and will energize a proposed distribution substation. Based on the existing facilities in the area, the proposed location is the most suitable for the Project. Other alternatives would require impacting neighboring properties, as opposed to remaining entirely on the Company's property, and would add additional transmission length to the Project without any additional benefit. The proposed Project is not anticipated to impact wetlands, streams, or any known cultural resource areas eligible for the National Register of Historic Places (NRHP). Therefore, this alternative represents the most suitable location and is the most appropriate solution for meeting the Company's needs in the area.

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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 in January 2024, and the anticipated in-service date will be May 2024.

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 Barnesville, Ohio quadrangle. Figure 2 in Appendix A show the Project Area on recent aerial photography, dated 2021, as provided by ESRI's World Imagery at a scale of 1:6,000 scale (1 inch equals 500 feet).

To visit the Project site from Columbus, Ohio, take I-70 West for approximately 100 miles, and take exit #202 for OH-800 toward Dennison/Barnesville. Turn right onto OH-800 South/Barnesville Hendrysburg Road and travel south for approximately six miles (becomes South Chestnut Street). Turn right onto Sycamore Street and continue into the Project Area. The Project Area is at the approximate latitude 39.978775°, -81.176707°.

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 proposed Project is located on four parcels. Parcel Numbers 42-01015.000 and 41-00580.000 are owned by the Company. The Project also crosses Parcels 42-00877.000 and 42-00878.000, which have

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existing right-of-way (ROW) and no supplemental easements are required. No other property easements, options, or land use agreements are necessary to construct the Project or operate the transmission line.

A list of properties required for the Project is provided in the table below.

Property Parcel Number	Agreement Type	Easement/ Option Obtained (Yes/No)
41.00580.000	Company Owned	Not Applicable
42-01015.000	Company Owned	Not Applicable
42-00877.000	Existing ROW	Yes
42-00878.000	Existing ROW	Yes

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: Speidel-Barnesville 138 kV
Ownership: AEP Ohio Transmission Company, Inc.
Voltage: 138 kV
Conductors: (3) 1234 KCM ACSR (38/19) ACSS/TW YUKON
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 feet
Structure Type: (1) Single Circuit, Monopole Deadend, custom concrete pier foundation
(1) Three-pole, single circuit, Deadend, custom concrete pier foundations

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 proposed Project, which is comprised of applicable and capital costs, is approximately \$1,300,000 using a Class 4 estimate. Pursuant to the PJM OATT, the costs for this Project will be recovered in AEP Ohio Transmission Company Inc.'s FERC formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP Zone.

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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 Village of Barnesville, Belmont County, Ohio. Land use in the Project Area consists of a Company property planned for development with a distribution substation (which is currently fallow), existing transmission line right-of-way, and adjacent residential and wooded properties.

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.

Almost the entire Company property, including the entirety of the Project, is undeveloped with a mix of existing right-of-way, old field, and woodland. No agricultural land is crossed by the Project. The Belmont County Auditor indicated on May 9, 2023 that none of the parcels crossed by the Project are registered as Agricultural District Land.

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 completed a Phase I Cultural Resource Management Investigation of the Project Area in April 2023. No further investigation was considered to be necessary by the consultant. The Ohio Historic Preservation Office ("SHPO") agreed that the Project will not impact any cultural resources eligible for listing on the NRHP and no additional coordination is necessary prior to construction. A copy of the May 19, 2023 concurrence letter from SHPO is provided in Appendix C.

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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 will be filed with the Ohio Environmental Protection Agency for authorization of construction storm water discharges under General Permit OHCD000006. The Company will also coordinate storm water permitting needs with Belmont County as required. The Company will implement and maintain best management practices as outlined in the Project-specific Storm Water Pollution Prevention Plan (“SWPPP”) to minimize erosion control sediment to protect surface water quality during storm events.

No streams or wetlands are located in the Project work areas (see Appendix D). 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.

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 **39013C0275E**). 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.

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 USFWS Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. The July 27, 2022, response letter from the USFWS (see Appendix C) indicated that seasonal tree clearing would be required if bat habitat trees were identified. Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any federally endangered, threatened, proposed, or candidate species.

A coordination letter was submitted to the Ohio Department of Natural Resources (“ODNR”) Division of Wildlife (“DOW”) Ohio Natural Heritage Program (“ONHP”) and the ODNR - Office of Real Estate in July 2022, seeking an environmental review of the proposed Project for potential impacts on state-listed and

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federally listed threatened or endangered species. Correspondence from ODNR's DOW/OHNP and the ODNR – Office of Real Estate was received on August 15, 2022. (see Appendix C).

According to the ODNR-DOW, the Project is within the range of the Indiana bat, northern long-eared bat, little brown bat, and tri-colored bat. ODNR commented the Project is in the vicinity of records for the Indiana bat, a state-endangered species. Due to the record of the Indiana bat in the vicinity of the Project and related buffer area, the ODNR recommends cutting between October 1 and March 31. If cutting must occur during summer months, the ODNR recommends additional coordination with ODNR. Based on a desktop survey for caves, mines, and other potential openings, no winter hibernacula were identified within 0.25 mile of the Project Area (See Appendix D), and tree clearing is expected to adhere to the seasonal restrictions. Therefore, no additional coordination with ODNR is anticipated.

The ODNR-DOW indicated that the Project is within the range of four fish species and the butterfly mussel. In addition, the ODNR lists the project in the range of the eastern hellbender, a state-threatened species and federal species of concern. Due to no in-water work proposed, these species are not anticipated to be impacted by the Project.

The ODNR-DOW indicated that the Project is within the range of the northern harrier and upland sandpiper. Due to the absence of potential nesting habitat for these ground nesting birds, these species are not anticipated to be impacted by the Project.

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.

Correspondence received from the USFWS indicated that there are no federal wilderness areas, wildlife refuges, or designated critical habitats in the Project vicinity (see Appendix D).

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 **39013C0275E**). Based on these maps, 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 in November 2022. No wetlands or streams were identified within the Project Area (see Figure 2 in Appendix D).

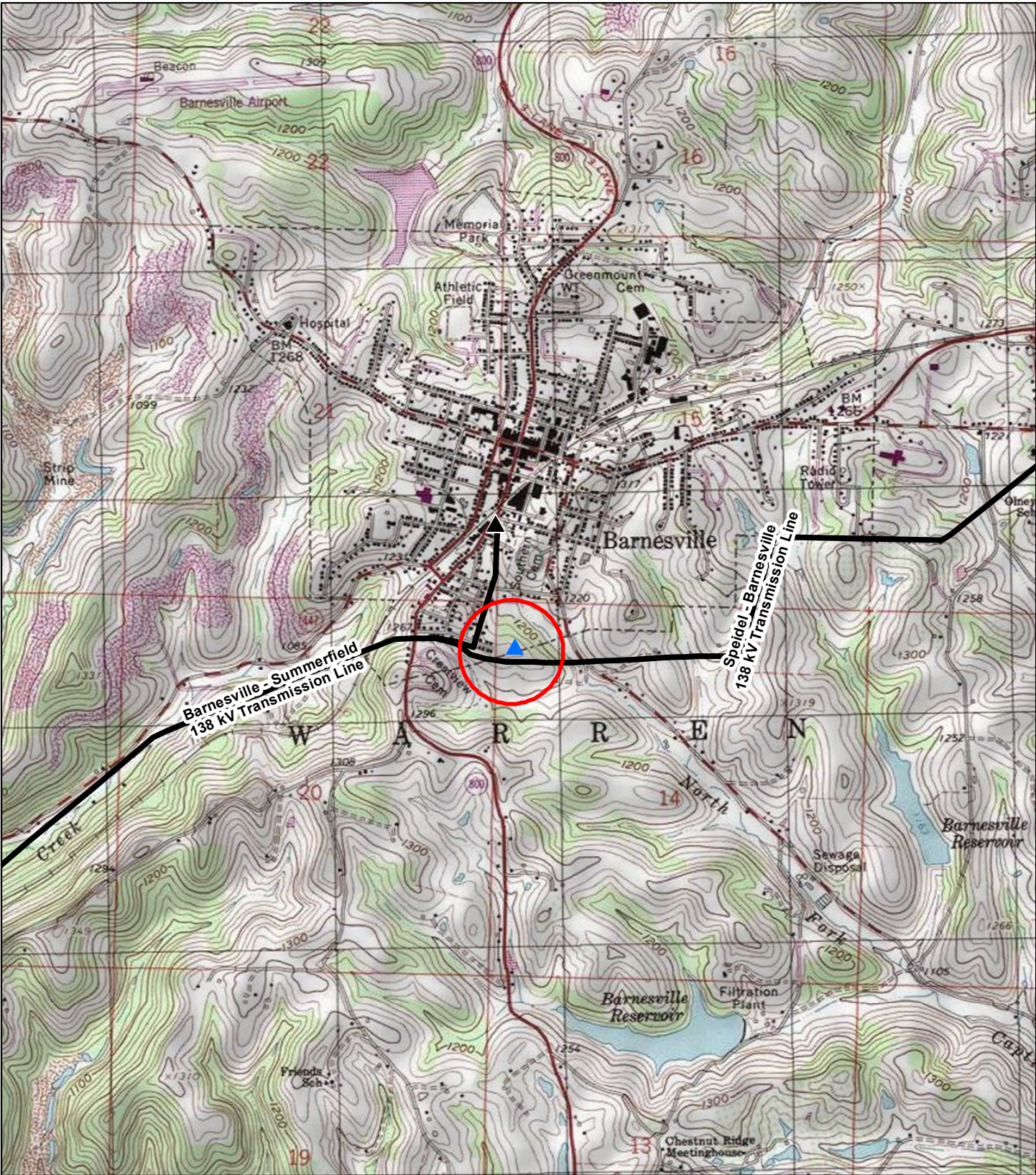
Construction Notice for Speidel-Barnesville 138 kV Cut-in to Pumpkin Station Project

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 Substation
- ▲ Proposed Substation
- Existing Transmission Line

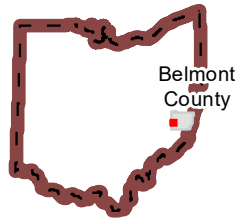
Data Sources: AEP, USGS 7.5'
Topographic Quadrangle
(Barnesville, Ohio)

Ohio State Plane South
NAD 1983



June 28, 2023

PROJECT LOCATION



BELMONT COUNTY, OHIO

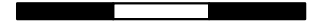
**FIGURE 1
TOPOGRAPHIC OVERVIEW**



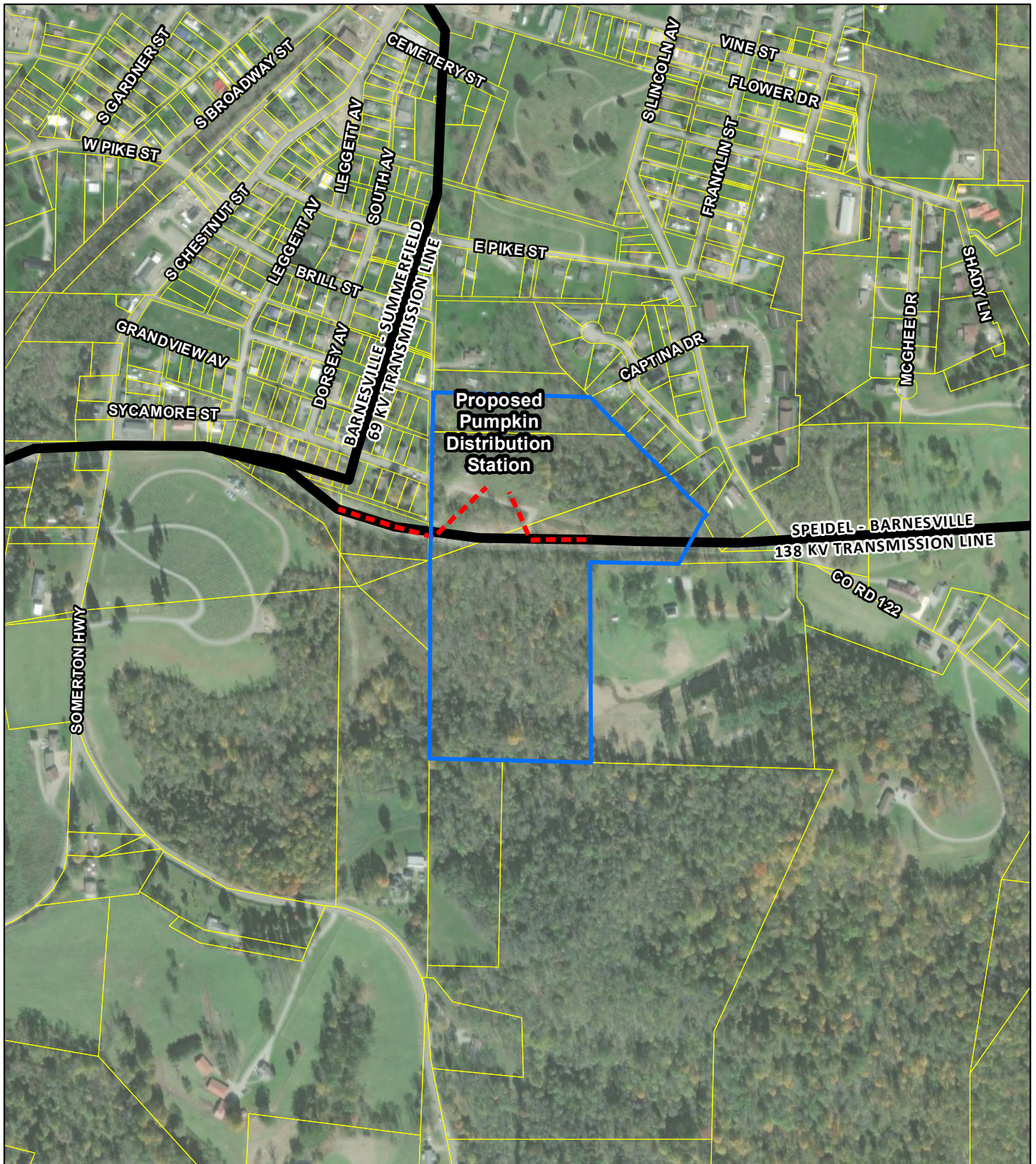
**SPEIDEL-BARNESVILLE
138KV CUT-IN TO
PUMPING STATION PROJECT**

An AEP Company
BOUNDLESS ENERGY

0 1,000 2,000 3,000



Feet



Legend:

- - - Proposed Transmission Line
- Project Area
- Existing Transmission Line
- ▲ Existing Substation
- Parcel Boundary

Data Sources: AEP,
ESRI Aerial Imagery (2021)

Ohio State Plane South
NAD 1983



June 28, 2023

PROJECT LOCATION



BELMONT COUNTY, OHIO

**FIGURE 2
PROJECT AERIAL MAP**



**SPEIDEL-BARNESVILLE
138KV CUT-IN TO
PUMPKING STATION PROJECT**

0 250 500 750



Feet

Appendix B PJM Solution



AEP Transmission Zone M-3 Process Pumpkin Station

Need Number: AEP-2021-OH061

Process Stage: Solution Meeting 01/21/2022

Previously Presented: Need Meeting 11/19/2021

Project Driver:
Customer Service; Operational Flexibility and Efficiency

Specific Assumption Reference:
AEP Guidelines for Transmission Owner Identified Needs; AEP Connection Requirements (AEP Assumptions Slides 12-13)

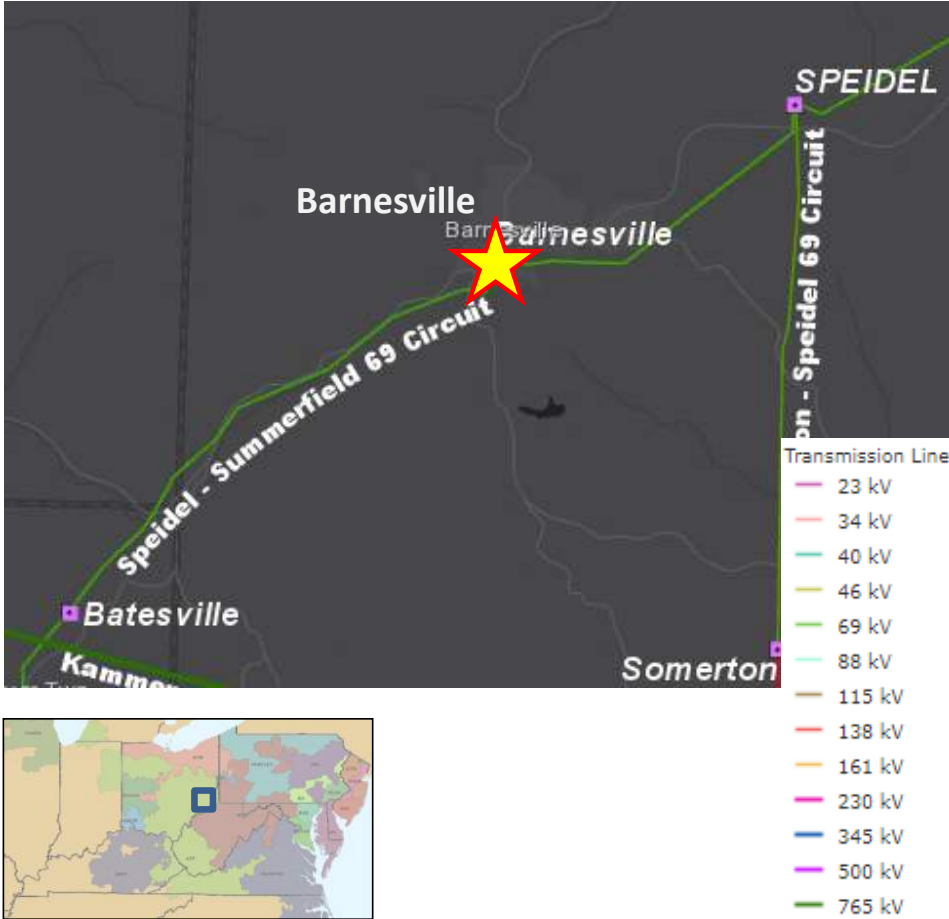
Problem Statement:

Customer Service:
AEP Ohio has requested a new load delivery point due to capacity loading limits at the Barnesville 69/12kV substation. The station is limited by its power transformer and secondary cables. The transformer was manufactured in 1968, has poor oil quality, and has bushing issues reported.

Operational Flexibility and Efficiency:

The station is served radially via a 0.4-mile 69kV tap. This T-line tap dates back to 1942, with original #1 copper conductor, and currently has 2 open conditions. Other projects in the area have proposed to rebuild the remainder of the 69 kV line in the area.

Barnesville has an obsolete MOAB/ground-switch for the transformer protection system. This requires remote-end breaker clearing many miles away, and drops another tapped AEP Ohio distribution station in the process (Batesville).





AEP Transmission Zone M-3 Process Pumpkin Station

Need Number: AEP-2021-OH061

Process Stage: Solution Meeting 01/21/2022

Proposed Solution: Install a new distribution station (“Pumpkin”) adjacent to the 69kV transmission through-path south of Barnesville. Retire Barnesville station. **Estimated Cost \$0.83 Million** (does not include Distribution costs for the station)

Retire the 0.4-mile 69kV transmission line tap into Barnesville station. **Estimated Cost: \$0.46 Million**

Loop the Speidel-Summerfield 69kV transmission line into Pumpkin station. **Estimated Cost: \$1.38 Million**

Total Estimated Transmission Cost: \$2.67 Million

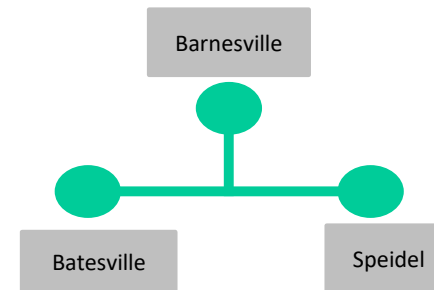
Alternatives Considered: Attempting to rebuild the existing Barnesville station was not a viable option, due to space constraints at the station and its congested location in the middle of town. In addition, the 1940’s-vintage 69kV transmission line is not able to be rebuilt due to many siting and right-of-way issues along the route.

Projected In-Service: 12/01/2023

Project Status: Scoping

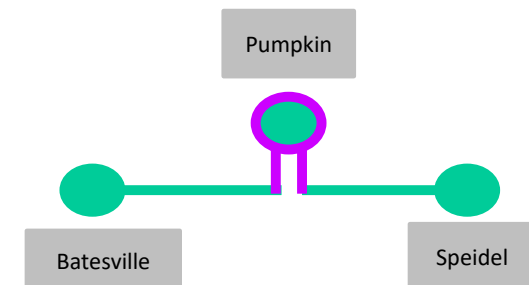
Model: 2026 PJM RTEP

Existing:



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

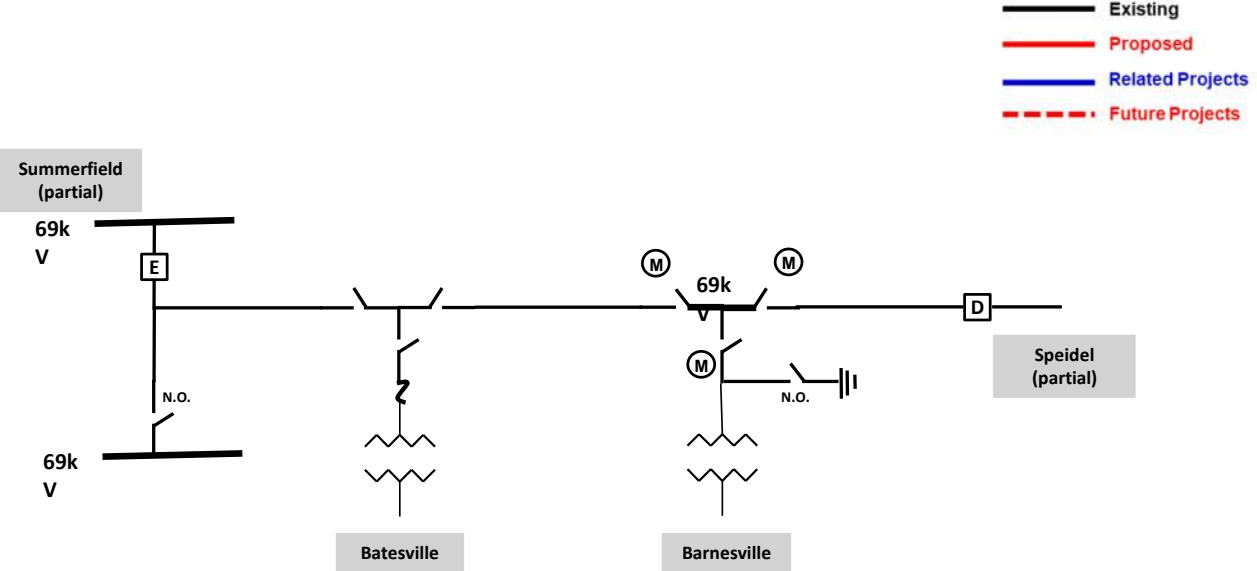
Proposed:





Project System Electrical Diagram (existing)

Include all CPPs in the Master Project. Draw the existing area one line for the buses the project will impact. Include circuits back to every remote end breaker. Snapshots of the Operations switching diagram are not acceptable.

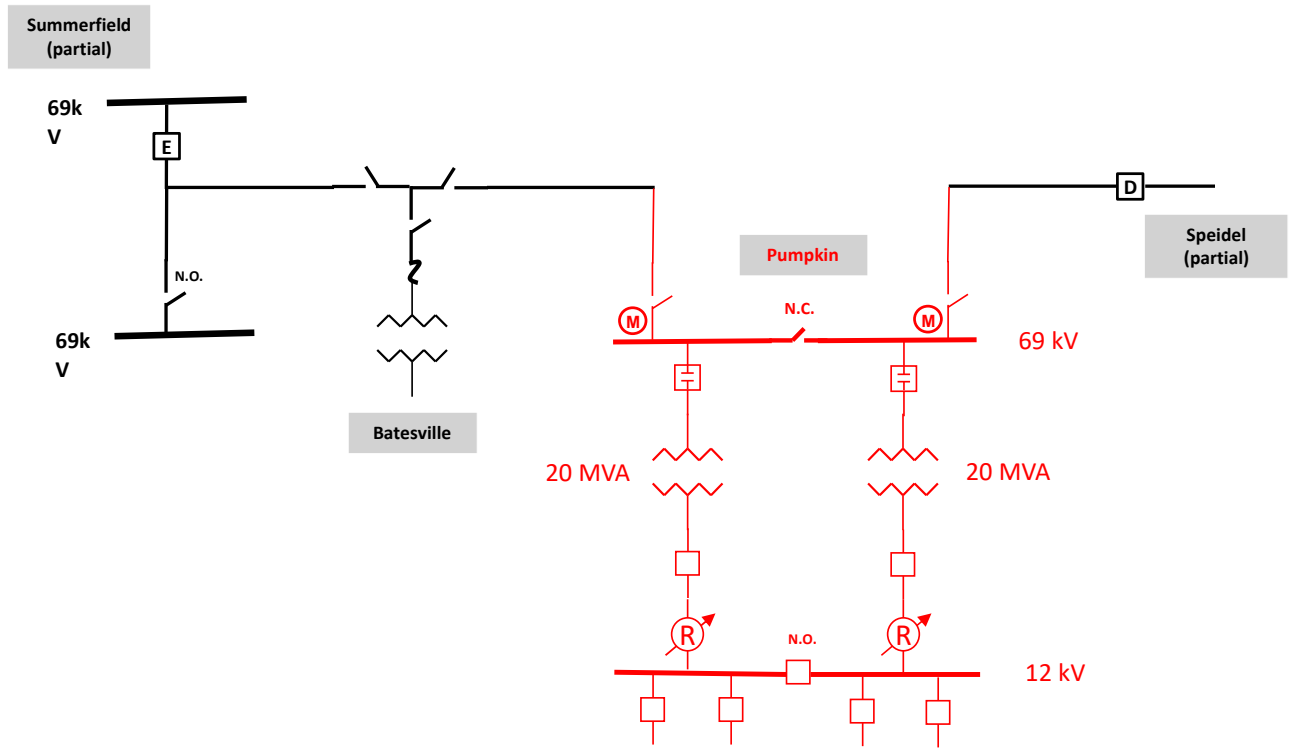




Project System Electrical Diagram (proposed)

Include all CPPs in the Master Project. Draw the existing area one line for the buses the project will impact. Include circuits back to every remote end breaker. Snapshots of the Operations switching diagram are not acceptable.

- Existing
- Proposed
- Related Projects
- Future Projects



Appendix C Agency Coordination



In reply, refer to
2023-BEL-57814

May 19, 2023

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: Pumpkin-Barnesville 69kV Transmission Line Installation, Warren Township, Belmont County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received April 27, 2023 regarding the proposed Pumpkin-Barnesville 69kV Transmission Line Installation, Warren Township, Belmont County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Cultural Resource Management Investigations for the Approximately .5 km (.3 mi) Pumpkin-Barnesville 69kV Transmission Line Installation in Warren Township, Belmont County, Ohio* by Ryan J. Weller and Scott McIntosh (Weller & Associates, Inc. 2023).

A literature review, visual inspection, surface collection, shovel probe, and shovel test unit excavation was completed as part of the investigations. No previously identified archaeological sites are located within the project area and no new archaeological sites were identified during survey. Our office agrees no additional archaeological investigation is needed.

A literature review and field survey were completed as part of the investigations. A total of twenty-seven (27) resources fifty years of age or older, including with Crestview Cemetery (OGSID 999) and Barnesville Catholic Cemetery (OGSID 994) and a demolished Ohio Historic Inventory (OHI) property, were identified within the Area of Potential Effects (APE). Weller recommends these properties are not eligible for listing in the National Register of Historic Places (NRHP). It is our office's opinion the eligibility of the cemeteries remain unknown, but will not be affected by the project. Our office agrees with Weller's recommendations of eligibility for the rest of the resources.

Based on the information provided, we agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1098000

Holmes, Joshua

From: Ohio, FW3 <ohio@fws.gov>
Sent: Wednesday, July 27, 2022 10:06 AM
To: Holmes, Joshua
Cc: nathan.reardon@dnr.state.oh.us; Wyza, Eileen; Hrishenko, Alexander; Miller, Brian; ajtoohey@aep.com
Subject: [EXTERNAL] AEP - Pumpkin Station D250 & Speidel-Barnesville T-line Build Project, Belmont County, Ohio



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

Project Code: 2022-0065274

Dear Mr. Holmes,

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

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

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

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

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


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

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

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

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

Sincerely,



Patrice Ashfield
Field Office Supervisor

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August 15, 2022

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Re: 22-0749; AEP Pumpkin Station D250 & Speidel-Barnesville T-line Build Project

Project: The proposed project involves building a new greenfield substation within a 10-acre parcel to replace the existing Barnesville Station proposed for retirement.

Location: The proposed project is located in Warren Township, Belmont County, Ohio.

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

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

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

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

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

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting

inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible.

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

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

State Endangered

butterfly (*Ellipsaria lineolata*)

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

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

State Endangered

western banded killifish (*Fundulus diaphanus menona*)

State Threatened

channel darter (*Percina copelandi*)

paddlefish (*Polyodon spathula*)

river darter (*Percina shumardi*)

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them

unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

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

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

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

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

The [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 D Ecological Report

SPEIDEL-BARNESVILLE LINE INSTALL TR380 PROJECT BELMONT COUNTY, OHIO

ECOLOGICAL REPORT

Prepared for:

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Prepared by:

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Project #: 60688122

November 2022

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1.0 INTRODUCTION

American Electric Power Ohio Transmission Company (AEP Ohio Transco) is proposing the Speidel-Barnesville Line Install TR380 Project (Project) in Belmont County, Ohio. The Study Area associated with this Report for the Project is located on the Barnesville, Ohio U.S. Geologic Survey 7.5' topographical quadrangle as displayed on Project Overview Map (**Figure 1**).

The purpose of this project is for the construction of an approximately 0.3-miles of transmission line to tie in the existing Speidel -Barnesville transmission line to the proposed Pumpkin Station in Belmont County, Ohio. A portion of the Project overlaps with previously delineated Pumpkin Station Project Survey as shown on **Figure 2**.

2.0 METHODOLOGY

The field survey was conducted over a Project survey area of approximately 3.9 acres. Prior to conducting field surveys, digital U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data, and U.S. Geological Survey (USGS) National Hydrography Dataset (NHD), FEMA 100-year floodplain data (FEMA), and USGS 7.5-minute topographic maps were reviewed as an exercise to identify the occurrence and location of potential wetland areas.

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 ArcCollector 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 vegetation cover of the location.

2.1 WETLAND DELINEATION

The Project survey area was evaluated according to the procedures outlined in the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (*1987 Manual*) (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: (USACE, 2012)* and *Eastern Mountain and Piedmont Region (Version 2.4) (EMP Regional Supplement)* (USACE, 2012).

During field survey activities AECOM utilized the routine on-site delineation method described in the *1987 Manual* and *Regional Supplements* that consisted of a pedestrian site reconnaissance, including identifying the vegetation 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.

Additionally, USACE Data forms and representative photographs were also taken to represent upland communities where desktop review indicated the potential presence of an aquatic feature based on aerial imagery, two or less wetland criteria were observed, and/or an absence of an aquatic features was observed for areas mapped as an NWI and/or NHD feature.

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 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 listed.

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 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* (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 mi² (259ha), and a maximum depth of water pools equal to or less than 15.75 inches were evaluated utilizing the HHEI methodology and all other streams assessed as QHEI. Flow regime (ephemeral, intermittent, perennial) was determined by the appropriate stream assessment score per OEPA manuals (OEPA, 2020) and by AECOM's professional judgment.

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 the basis of whether it may be ineligible for coverage under Ohio EPA's 401 Water Quality Certification for Nationwide Permits. Mapping provided by OEPA illustrate the eligibility of streams in the area for a nationwide 401 permit. Three categories are identified: eligible, ineligible, and possibly eligible with additional field screening required. Impacts to streams within each watershed would then have eligibility for 401 Water Quality Certification determined by the watershed category. The three categories are defined as:

Eligible: Streams within the watershed are eligible for coverage under Ohio EPA'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 Ohio EPA'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 OWHM (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, 2007).

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 “waters of the U.S.” except in certain circumstances, such as relocated streams.

2.3 RARE, THREATENED, AND ENDANGERED SPECIES

AECOM conducted a rare, threatened, and endangered species review and general field habitat surveys within the Project survey area. AECOM submitted requests to Ohio Department of Natural Resources (ODNR) Office of Real Estate – Environmental Review Section and the United States Fish and Wildlife Service (USFWS) Ohio Ecological Services Field Office soliciting comments on the proposed Project. Responses were received on July 27, 2022, and August 15, 2022, respectively (**Appendix D**). 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 rare, 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 located in **Appendix E**. This assessment was conducted by reviewing data on mining activity and karst geology from the ODNR Division of Mineral Resources and United States Geological Survey websites.

3.0 RESULTS

On November 2, 2022, AECOM ecologists walked the Project survey area to conduct the wetland delineation, stream assessment and habitat survey. Within the Project survey area, AECOM delineated one stream and no wetlands were identified within the project survey area. The delineated features are discussed in detail in the following sections.

3.1 WETLAND DELINEATION

3.1.1 PRELIMINARY SOILS EVALUATION

Soils in delineated wetlands were observed and documented as part of the delineation methodology. According to the USDA/NRCS Web Soil Survey, three soil series are mapped within the Project survey area (USDA NRCS 2021a and 2021b). Of these, no soil map units are identified as hydric. **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 (%)
Allegheny	AeC	Allegheny variant loam, 8 to 15 percent slopes	Benches on terraces, coves on terraces	No	N/A
Lowell-Westmoreland	LoC	Lowell-Westmoreland silt loam, 8 to 15 percent slopes	Ridges	No	N/A
Westmoreland	WmD	Westmoreland silt loam, 15 to 25 percent slopes	Hills	No	N/A

3.1.2 NATIONAL WETLAND INVENTORY MAP REVIEW

According to NWI data covering the Project location, the Project survey area contains no mapped NWI wetlands. The locations of NWI mapped wetlands in the Project vicinity are shown on **Figure 2**.

3.1.3 DELINEATED WETLANDS

During the field survey, AECOM did not identify any wetlands. Representative uplands were taken to characterize the study area. These points are provided on **Figure 3**. Completed USACE data each upland are provided in **Appendix A**.

3.2 STREAM DELINEATION

During the field survey, AECOM delineated one intermittent was identified as a Class I PHW stream within the Project Survey area. No QHEI evaluations or streams with an existing OEPA Aquatic Life Use Designation were identified within the Project Survey Area.

AECOM has provided a provisional determination that all delineated streams within the Project survey area appear to be jurisdictional (i.e., WOTUS), based on their observed or presumed confluence with downstream waters. Final jurisdictional status can only be determined by the USACE, and AECOM assessments are provisional. A summary of the delineated streams is provided in **Table 2**. Stream data forms and photographs of each delineated stream resource are provided in **Appendix B**.

3.2.1 OEPA STREAM ELIGIBILITY

OEPA stream eligibility for 401 Water Quality Certification mapping was reviewed for the delineated stream. The Project occurs across one watershed, designated by 401 WQC eligibility, as listed in **Table 3**. The watershed is listed as “possibly eligible”. OEPA stream eligibility mapping for the Project vicinity, is provided on **Figure 4**.

3.3 FEMA 100 YEAR FLOODPLAINS

Mapped FEMA designated 100-year floodplains and floodways are displayed on **Figure 2**. No regulated FEMA 100-year floodplains and/or floodways are located within the Project area.

TABLE 2 - SUMMARY OF DELINEATED STREAMS WITHIN THE PROJECT SURVEY AREA

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Crossing	Proposed Impacts	
	Latitude	Longitude						Method	Score	Classification / Rating / OAC Designation			Fill Type	Length (LF)
S-MRK-002	39.979543	-81.180194	Intermittent	UNT to North Fork Captina Creek	146	3.5	1.75	HHEI	29	Class 1 PHW	Possibly Eligible	No	None	0
Total:					146									0

**Structure placement and aquatic crossing details have not been established at this time*

TABLE 3 - SUMMARY OF WATERSHED 401 WQC ELIGIBILITY WITHIN THE PROJECT SURVEY AREA

HUC-12	Watershed	401 WQC Eligibility	Number of Stream Assessments
050301060901	North Fork Captina Creek	Possibly Eligible	1
Total			1

3.4 PONDS

No ponds were observed within the Project survey area.

3.5 UPLAND DRAINAGE FEATURES WITHIN THE PROJECT SURVEY AREA

No upland drainage features were observed within the Project survey area.

3.6 VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA

AECOM ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys. A variety of woody and herbaceous lands, as described in **Table 4**, below, are present within the Project survey area, including developed open space and forested areas. Habitat descriptions applicable to the Project are provided below. Vegetative communities are depicted visually on aerial photography in **Figure 5**.

TABLE 4- VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA

Vegetative Community	Description	Approximate Acreage Within the Project Survey Area	Approximate Percentage Within the Project Survey Area
Old Field	Grassland and/or herbaceous cover alongside roads, field borders, and abandoned fields, as the initial stages of recolonization by plants following disturbance, and are infrequently mowed areas dominated by grasses, forbs, and occasional woody species. This community type is typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed, in which case they remain as old fields.	2.6	66.7
Woodlands (Successional mixed hardwood forest)	Woodlands (floodplain, upland, successional-mixed, etc) are present along the Project survey area. Woody species dominating these areas included black locust (<i>Robinia pseudoacacia</i>). The dominant shrub-layer species included black locust and Allegheny blackberry (<i>Rubus allegheniensis</i>).	0.4	10.3
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.	0.9	23.0
Totals:		3.9	100%

3.7 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

AECOM conducted a rare, threatened, and endangered species review for areas within the Project survey area. A summary of the agency coordination is provided below. Correspondence letters from the USFWS and ODNR for Speidel-Barnesville Line Install TR380 Project are included as **Appendix D. Table 5** 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 is provided as **Appendix C**.

TABLE 5
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Avoidance Dates	Agency Comments	Potential Impacts
Mammals							
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Endangered	Winter Indiana bat hibernacula include caves and mines, while summer habitat typically includes tree species exhibiting exfoliating bark or cavities that can be used for roosting. The 8- to 10-inch diameter size classes of several species of hickory (<i>Carya</i> spp.), oak (<i>Quercus</i> spp.), ash (<i>Fraxinus</i> spp.), birch (<i>Betula</i> spp.), and elm (<i>Ulmus</i> spp.) have been found to be utilized by the Indiana bat. These tree species and many others may be used when dead, if there are adequately sized patches of loosely adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes a mixture of loose-barked trees with 60 to 80 percent canopy closure and a low-density sub-canopy (less than 30 percent between about 6 feet high and the base canopy). The suitability of roosting habitat for foraging or the proximity to suitable foraging habitat is critical to the evaluation of a particular tree stand. An open subcanopy zone, under a moderately dense canopy, is important to allow maneuvering while catching insect prey.	<p><u>Summer habitat</u> Yes - Within the Project survey area, areas of young successional forest were identified which appear to be potentially suitable summer roosting and foraging habitat.</p> <p><u>Hibernaculum(a)</u> No – No Mines 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. Furthermore, field evaluations did not identify any potential hibernaculum(a) within the Project area. See Appendix E.</p>	<p><u>Summer Tree Clearing</u> April 1 – September 30</p>	<p>If suitable habitat occurs within the Project survey Area, the USFWS and ODNR DOW recommends seasonal tree cutting to occur between October 1 and March 31, if tree clearing cannot be avoided. If seasonal tree clearing cannot be completed, USFWS/DOW recommends a mist net or acoustic survey to be conducted between June 1 and August 15, prior to any cutting. If no tree removal is proposed, the Project is not likely to impact this species.</p> <p>In accordance with 2022 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing (2022 Joint Guidance) (copy of guidance provided within Appendix D), a desktop assessment for features potentially suitable as bat hibernacula was conducted and portal searches within 0.25 miles of the Project area with no features identified as potentially suitable for hibernating bats (See Appendix E).</p>	<p><u>Summer habitat</u> Potential summer roosting habitat is present within the Project area and seasonal tree clearing, between October 1 and March 31, is recommended.</p> <p><u>Hibernaculum(a)</u> No, potential hibernaculum(a) is not present within the Project area</p>
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	Threatened	Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel, and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forest and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 3-inches dbh that have any exfoliating bark, cracks, crevices, hollows, and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. 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 structure should also be considered potential summer habitat. In the winter, northern long-eared bats hibernate in caves and abandoned mines.	<p><u>Summer habitat</u> Yes - Within the Project survey area, areas of young successional forest were identified which appear to be potentially suitable summer roosting and foraging habitat.</p> <p>ODNR commented known records for species within Project area.</p> <p><u>Hibernaculum(a)</u> No – No Mines openings and/or known caves are located within 0.25 miles of Project area. Furthermore, field evaluations did not identify any potential hibernaculum(a) within the Project area. See Appendix E.</p>	<p><u>Summer Tree Clearing</u> April 1 – September 30</p>	<p>If suitable habitat occurs within the Project survey Area, the USFWS and ODNR DOW recommends seasonal tree cutting to occur between October 1 and March 31, if tree clearing cannot be avoided. If summer tree cutting is required, additional summer surveys would not constitute presence/absence due to know presence of this species. Additional consultation with the ODNR for permission for limited summer tree cutting is recommended and roosts/emergent surveys may be required. If no tree removal is proposed, the Project is not likely to impact this species.</p> <p>In accordance with 2022 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing (2022 Joint Guidance) (copy of guidance provided within Appendix D), a desktop assessment for features potentially suitable as bat hibernacula was conducted and portal searches within 0.25 miles of the Project area with no features identified as potentially suitable for hibernating bats (See Appendix E).</p>	<p><u>Summer habitat</u> Potential summer roosting habitat is present within the Project area and seasonal tree clearing between October 1 and March 31 is recommended. If summer tree cutting is required, additional summer surveys would not constitute presence/absence due to know presence of this species. Additional consultation with the ODNR for permission for limited summer tree cutting is recommended and roosts/emergent surveys may be required.</p> <p><u>Hibernaculum(a)</u> No potential hibernacula are present within the Project area and no further coordination is warranted.</p>

TABLE 5
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Avoidance Dates	Agency Comments	Potential Impacts
Little brown bat (<i>Myotis lucifugus</i>)	Endangered	NA	The little brown bat shares similar habitat requirements as other Myotis species including the Indiana bat and northern long-eared bat. This species may roost in trees, attics, or other man-made structures during the summer season. In winter, they may hibernate in caves, mines, or man-made structures with appropriate temperature regimes.	<p><u>Summer habitat</u> Yes - Within the Project survey area, areas of young successional forest were identified which appear to be potentially suitable summer roosting and foraging habitat.</p> <p><u>Hibernaculum(a)</u> No – No Mines openings and/or known caves are located within 0.25 miles of Project area. Furthermore, field evaluations did not identify any potential hibernaculum(a) within the Project area. See Appendix E.</p>	<p><u>Summer Tree Clearing</u> April 1 – September 30</p>	<p>If suitable habitat occurs within the Project survey Area, the USFWS and ODNR DOW recommends seasonal tree cutting to occur between October 1 and March 31, if tree clearing cannot be avoided. If seasonal tree clearing cannot be completed, USFWS/DOW recommends a mist net or acoustic survey to be conducted between June 1 and August 15, prior to any cutting. If no tree removal is proposed, the Project is not likely to impact this species.</p> <p>In accordance with 2022 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing (2022 Joint Guidance) (copy of guidance provided within Appendix D), a desktop assessment for features potentially suitable as bat hibernacula was conducted and portal searches within 0.25 miles of the Project area with no features identified as potentially suitable for hibernating bats (See Appendix E).</p>	<p><u>Summer habitat</u> Potential summer roosting habitat is present within the Project area and seasonal tree clearing, between October 1 and March 31, is recommended.</p> <p><u>Hibernaculum(a)</u> No, potential hibernaculum(a) is not present within the Project area</p>
Tricolored bat (<i>Perimyotis subflavus</i>)	Endangered	NA	The tricolored bat primarily roosts in trees during the summer months. During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	<p><u>Summer habitat</u> Yes - Within the Project survey area, areas of young successional forest were identified which appear to be potentially suitable summer roosting and foraging habitat.</p> <p><u>Hibernaculum(a)</u> No – No Mines openings and/or known caves are located within 0.25 miles of Project area. Furthermore, field evaluations did not identify any potential hibernaculum(a) within the Project area. See Appendix E.</p>	<p><u>Summer Tree Clearing</u> April 1 – September 30</p>	<p>If suitable habitat occurs within the Project survey Area, the USFWS and ODNR DOW recommends seasonal tree cutting to occur between October 1 and March 31, if tree clearing cannot be avoided. If seasonal tree clearing cannot be completed, USFWS/DOW recommends a mist net or acoustic survey to be conducted between June 1 and August 15, prior to any cutting. If no tree removal is proposed, the Project is not likely to impact this species.</p> <p>In accordance with 2022 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing (2022 Joint Guidance) (copy of guidance provided within Appendix D), a desktop assessment for features potentially suitable as bat hibernacula was conducted and portal searches within 0.25 miles of the Project area with no features identified as potentially suitable for hibernating bats (See Appendix E).</p>	<p><u>Summer habitat</u> Potential summer roosting habitat is present within the Project area and seasonal tree clearing between October 1 and March 31 is recommended. If seasonal tree clearing cannot be completed, additional coordination including roost/emergence surveys, mist net surveys, and/or other presence absence surveys may be warranted to be completed between June 1 and August 15.</p> <p><u>Hibernaculum(a)</u> No potential hibernaculum(a) is present within the Project area and no further coordination is warranted.</p>

**TABLE 5
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA**

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Avoidance Dates	Agency Comments	Potential Impacts
Mussels							
Butterfly (<i>Ellipsaria lineolata</i>)	Endangered	None	Freshwater streams as defined in the Ohio Mussel Survey Protocol (2022).	No	N/A	Due to the location, and there is no in-water work proposed in a perennial stream of sufficient size, this Project is not likely to impact this species.	No perennial streams were observed; therefore, no impact.
Fish							
Western banded killifish (<i>Fundulus diaphanous menona</i>)	Endangered	None	This species is found mainly in lakes, ponds, swamps, and streams.	No perennial streams were identified within the Project area.	April 15 to June 30	The ODNR DOW recommended that no in-water work from April 15 to June 30 to reduce impacts to this species. If no in-water work is proposed in a perennial stream, this Project is not likely to impact the species.	No perennial streams were observed; therefore, no impact
Channel darter (<i>Percina copelandi</i>)	Threatened	None	This species prefers pools and riffles of small- to medium-sized rivers, but can also be found in shallow, slow current areas of large rivers.	No perennial streams were identified within the Project area.	April 15 to June 30	The ODNR DOW recommended that no in-water work from April 15 to June 30 to reduce impacts to this species. If no in-water work is proposed in a perennial stream, this Project is not likely to impact the species..	No perennial streams were observed; therefore, no impact
Paddlefish (<i>Polydon spathula</i>)	Threatened	None	This species is found mainly in medium to large rivers.	No perennial streams were identified within the Project area.	April 15 to June 30	The ODNR DOW recommended that no in-water work from April 15 to June 30 to reduce impacts to this species. If no in-water work is proposed in a perennial stream, this Project is not likely to impact the species.	No perennial streams were observed; therefore, no impact
River darter (<i>Percina shumardi</i>)	Threatened	None	This species is found mainly in rivers and streams with moderate to swift currents.	No perennial streams were identified within the Project area.	April 15 to June 30	The ODNR DOW recommended that no in-water work from April 15 to June 30 to reduce impacts to this species. If no in-water work is proposed in a perennial stream, this Project is not likely to impact the species.	No perennial streams were observed; therefore, no impact
Amphibian							
Eastern hellbender	Endangered	None	This entirely aquatic species utilizes perennial streams with large flat rocks	No perennial streams were identified within the Project area.	N/A	The DOW stated that due to the location, and that there is no in-water work proposed in a perennial stream of sufficient sized to provide suitable habitat, this project is not likely to impact this species.	No perennial streams were observed; therefore, no impact.

TABLE 5
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Avoidance Dates	Agency Comments	Potential Impacts
Birds							
Upland Sandpiper (<i>Bartramia longicauda</i>)	Endangered	None	This species utilizes dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and sometimes the grassy extensions of airports.	No potentially suitable habitat was observed for this species	N/A	ODNR stated that if this type of habitat will be impacted, construction should be avoided in the habitat during the species' nesting period of April 15 through July 31.	No potentially suitable habitat was observed within the Project survey area (Figure 5).
Northern harrier (<i>Circus hudsonius</i>)	Endangered	None	This species hunts over grasslands and nests can be found in large marshes and grasslands.	No potentially suitable habitat was observed for this species	N/A	ODNR stated that if this type of habitat will be impacted, construction should be avoided in the habitat during the species' nesting period of April 15 to July 31.	No potentially suitable habitat was observed within the Project survey area (Figure 5).

ODNR Coordination –

Coordination with the ODNR was initiated during the planning stages of the Project to obtain records of protected species located in the vicinity of the Project. On August 15, 2022, the ODNR Office of Real Estate Environmental Review Section replied to a request for records of protected species within an extended area around the Project site. The Ohio Natural Heritage Database (ONHD) review found no records of state-protected species or state protected resource areas at or within a one-mile radius of the Project survey area.

The ODNR Division of Wildlife (DOW) recommended 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. In addition, the DOW listed twelve state-listed species within range of the Project survey area, including:

- Four mammals: Indiana bat, northern long-eared bat, little brown bat and tricolored bat;
- One mussel: butterfly;
- One amphibian: eastern hellbender;
- Four fish: western banded killifish, channel darter, paddlefish, and river darter, and
- Two birds: northern harrier and upland sandpiper.

Potentially suitable summer habitat for the four bats were identified in the Project survey area and one of the four listed bat species, Indiana bat, was identified by the ODNR as a known presence within the Project survey area. Therefore, the ODNR recommends tree clearing activities to occur between October 1 and March 31. If trees must be cut during the summer months, the ODNR recommends that a mist net survey could be completed for northern long-eared bat, little brown bat, and the tricolored bat between June 1 and August 15 to confirm presence/absence. However, additional summer surveys would not constitute presence/absence within the Project area for the northern long-eared bat. Therefore, limited tree clearing activities could be permitted upon completion and coordination of results of emergent and/or roost tree surveys with the ODNR. Regarding potential hibernaculum(a) within the Project area, a desktop hibernaculum(a) review was completed in accordance with *2022 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing* (2022 Joint Guidance) and no known karst, mines, and/or caves were identified within 0.25 miles of the Project survey area during the desktop analysis and no caves or mines were identified during the ecological survey.

Due to the absence of in-stream work proposed, the Project is not likely to impact the western banded killifish, channel darter, paddlefish, river darter, eastern hellbender, or butterfly.

The ODNR noted that the Project is within the range of the northern harrier and upland sand piper; however, AECOM ecologist and approved avian specialist concluded an absence of these species' habitats within the Project survey area. Open grasslands and wet meadow marshes of at minimum of approximately 2 acres are considered as nesting habitat for the Northern Harrier and the Project survey area is mostly woodlands and old field. Similarly, the upland sandpiper requires at a minimum of 20-acres in size of dry grasslands, pastures, hayfields, airports, or vegetation of shorter vegetation height for potential nesting habitat and the Project survey area lack the available landscape due to the amount of urbanization within the area to provide this suitable habitat. As a result, an absence of potential nesting habitat for these bird species was identified within the Project survey area; therefore, the Project is not likely to impact these species.

USFWS Coordination –

Coordination with the USFWS was also initiated during the planning stages of the Project to obtain technical assistance regarding federally listed species that may occur within the Project area. The USFWS responded on July 27, 2022, noting that the Project lies within the range of the federally endangered Indiana bat and the federally threatened northern long-eared bat. USFWS recommends that trees ≥ 3 inches dbh, be saved wherever possible. If no caves or abandoned mines are present and trees ≥ 3 inches cannot be avoided, USFWS recommends that tree removal occur between October 1 and March 31 to avoid adverse effects to Indiana bats and northern long-eared bats during the brood-rearing months.

4.0 SUMMARY

The ecological survey of the Project survey area identified one intermittent stream and was identified as a Class 1 PHW, this feature can be seen on **Figure 3**. The AECOM has preliminary determined that the assessed streams within the Project survey area appear to be jurisdictional (i.e., WOTUS). The reported results of the ecological survey conducted by AECOM on this Project are limited to the areas within the Project survey area provided in **Figure 3**. Areas that fall outside of the Project survey area were not evaluated in the field and are not included in the reporting of this survey.

Of twelve species identified within range of the Project survey area, four bat species were identified as displaying summer roosting habitat and no hibernacula was identified within 0.25 miles of the Project survey area. Due to presence of summer roosting habitat for these bat species, it was recommended by the ODNR to complete seasonal tree clearing activities between October 1st and March 31st. If seasonal tree clearing cannot be completed, mist net surveys could be completed for Indiana bat, little brown bat, and/or tricolored bat between April 1 to September 30. However, Indiana bat is known to occur within the Project area and additional mist net surveys would not constitute presence/absence for this species. Therefore, limited summer tree cutting inside of the know buffer for this species could be permitted by further coordinating results of emergent and/or roost surveys with the ODNR.

The reported results of the ecological survey conducted by AECOM on this Project are limited to the areas within the Project survey area provided in Figure 3. Areas that fall outside of the Project survey area were not evaluated in the field and are not included in the reporting of this survey.

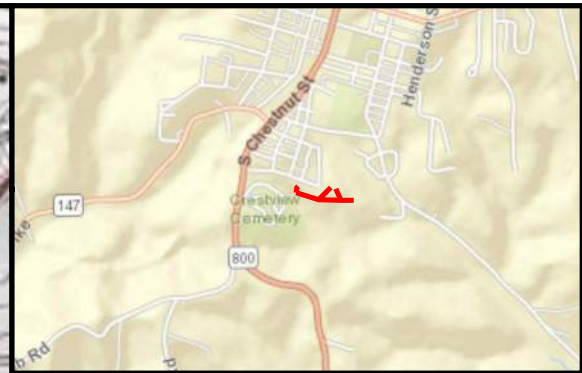
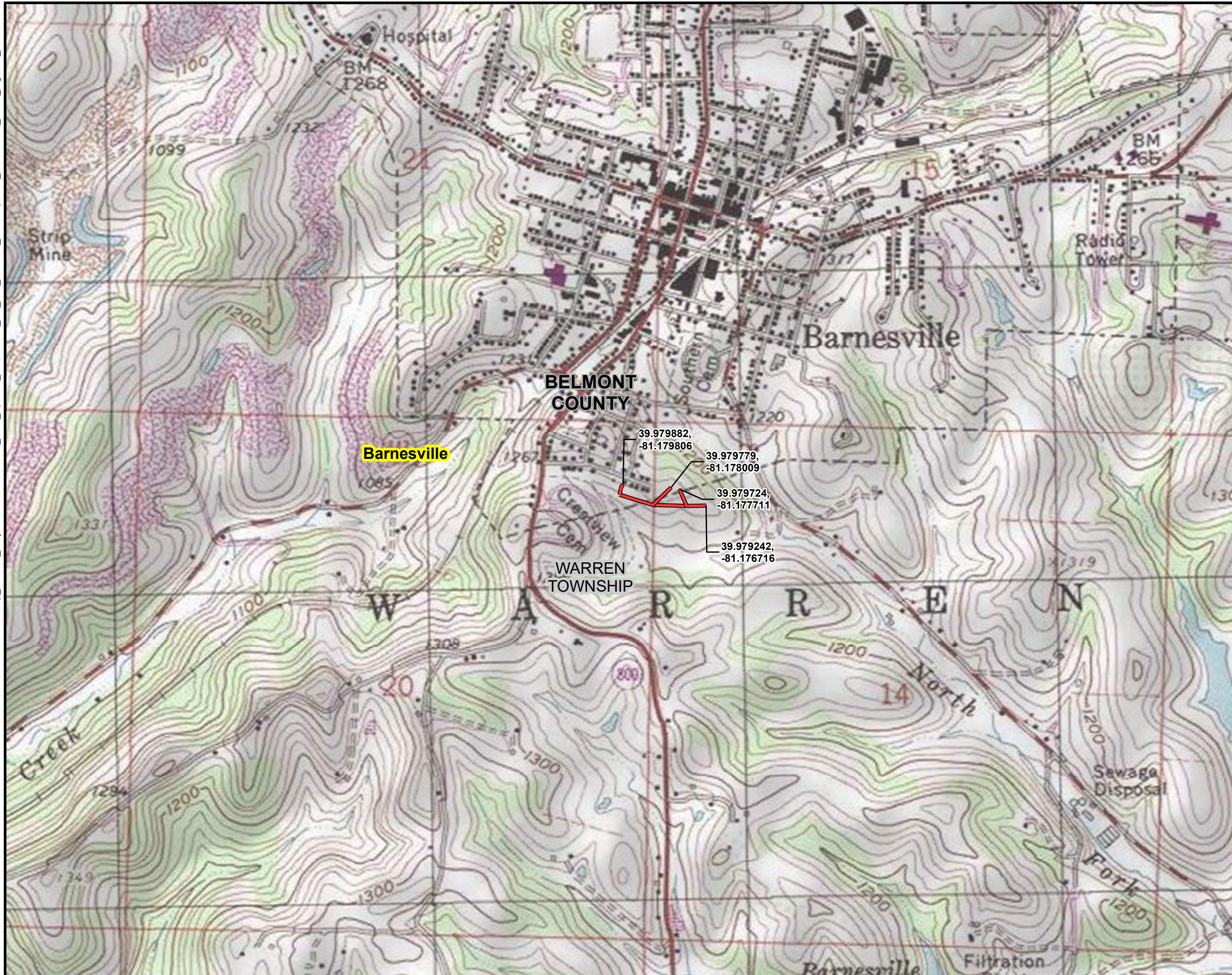
The information contained in this wetland delineation report is for a study area that may be much larger than the actual Project limits-of-disturbance; therefore, lengths and acreages listed in this report may not constitute the actual impacts of the Project defined in subsequent permit applications. If necessary, a separate report that identifies the actual Project impacts will be provided with agency submittals.

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.

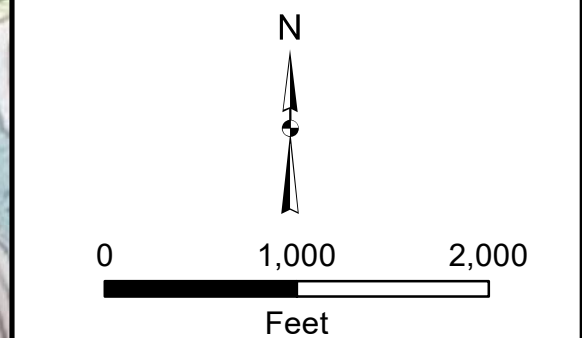
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- Legend**
- Speidel Barnesville Tie-In
 - Ohio USGS 7.5' Topographic Quadrangle
 - Township Boundary
 - County Boundary



*Speidel Barnesville Line
Install TR380 Project*

FIGURE 1 PROJECT OVERVIEW	
DATE: 11/10/2022	1 INCH = 1,000 FEET
CREATED BY: PMH	CHECKED BY:
JOB NO. 60688122	AECOM



Legend

- ▲ Upland Data Point
- Speidel Barnesville Tie-In
- Delineated Intermittent Stream
- NHD Stream (USGS)
- ▨ NWI Wetland (USFWS)
- Project Survey Area
- HUC 12 (USGS)
- County Boundary
- SSURGO Soil Map Unit (NRCS)

Soil Map Unit Description

- AeC—Allegheny variant loam, 8 to 15 percent slopes
- DkE—DeKalb loam, 25 to 40 percent slopes
- He—Hartshorn silt loam, occasionally flooded
- LoB—Lowell-Westmoreland silt loams, 3 to 8 percent slopes
- LoC—Lowell-Westmoreland silt loams, 8 to 15 percent slopes
- LoD—Lowell-Westmoreland silt loams, 15 to 25 percent slopes
- LoE—Lowell-Westmoreland silt loams, 25 to 35 percent slopes
- WmB—Westmoreland silt loam, 3 to 8 percent slopes
- WmD—Westmoreland silt loam, 15 to 25 percent slopes
- WmE—Westmoreland silt loam, 25 to 35 percent slopes

N

0 200 400

Feet

Speidel Barnesville Line Install TR380 Project	
FIGURE 2 SOIL MAP AND NATIONAL WETLAND INVENTORY MAP	
DATE: 11/10/2022	1 INCH = 200 FEET
CREATED BY: PMH	CHECKED BY:
JOB NO. 60688122	AECOM



Legend

- ▲ Upland Data Point
- Speidel Barnesville Tie-In
- Contour (5-Ft)
- NHD Stream (USGS)
- Delineated Intermittent Stream
- Project Survey Area
- County Boundary

N

0 200 400

Feet

Speidel Barnesville Line
Install TR380 Project

FIGURE 3	
WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 11/10/2022	1 INCH = 200 FEET
CREATED BY: PMH	CHECKED BY:
JOB NO. 60688122	AECOM



Legend

- Speidel Barnesville Tie-In
- NHD Stream (USGS)
- Project Survey Area

OEPA Stream Eligibility:

- Eligible
- Possibly Eligible

N

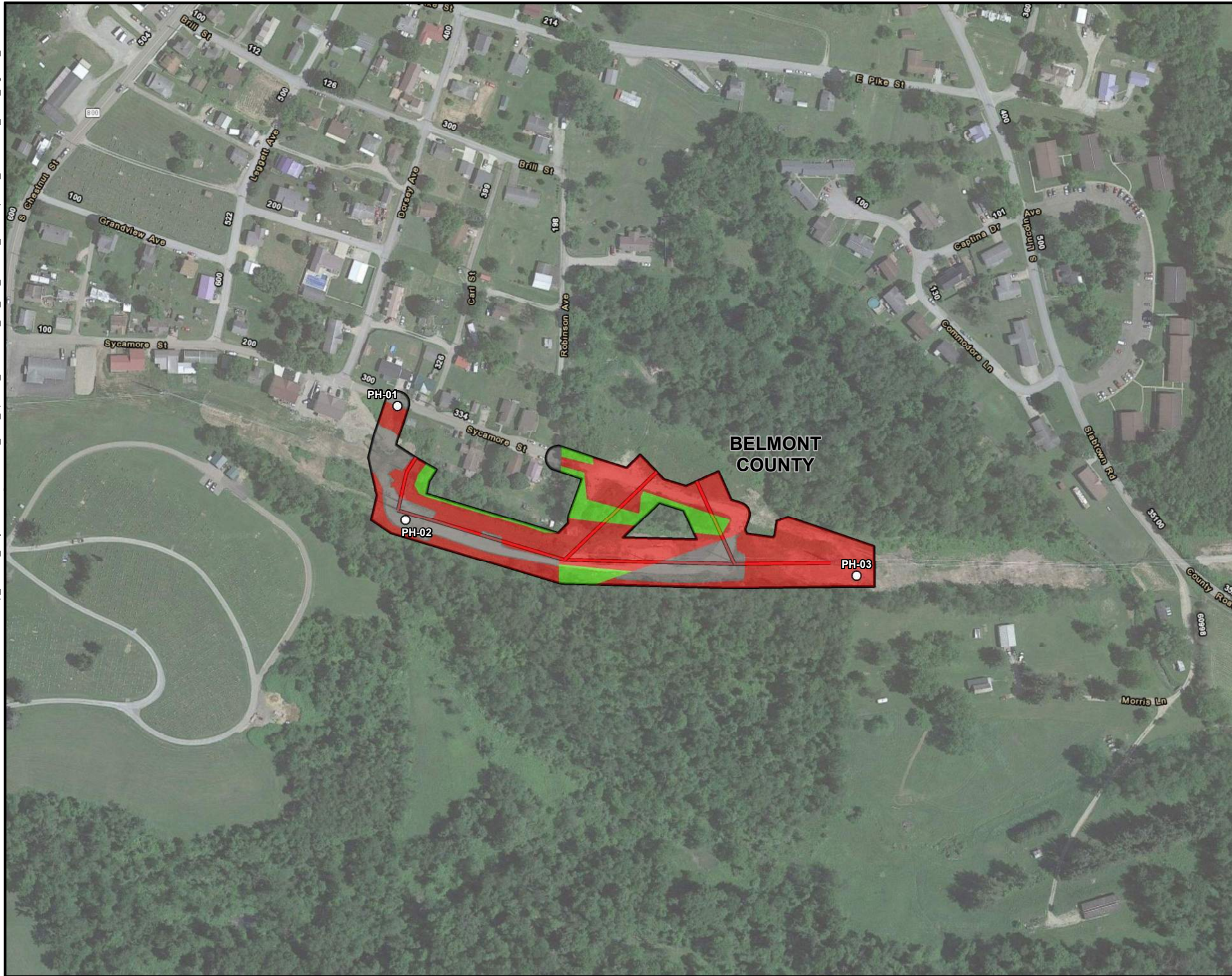
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Feet

*Speidel Barnesville Line
Install TR380 Project*

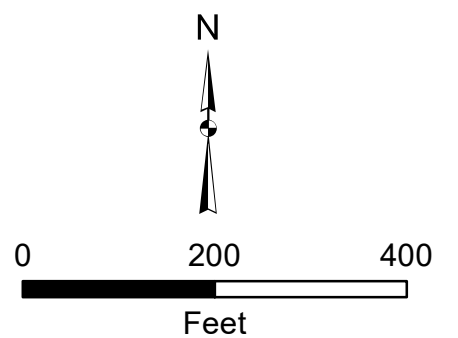
**FIGURE 4
STREAM ELIGIBILITY MAP**

DATE: 11/10/2022	1 INCH = 1,000 FEET
CREATED BY: PMH	CHECKED BY:
JOB NO. 60688122	AECOM



Legend

- Photo Location
 - Speidel Barnesville Tie-In
 - ▭ Project Survey Area
 - ▭ County Boundary
- Vegetative Community Type**
- Old Field
 - Urban
 - Woodlands



AEP OVERSIGHT MANAGEMENT COMPANY
 Speidel Barnesville Line
 Install TR380 Project

FIGURE 5 VEGETATIVE COMMUNITIES ASSESSMENT MAP	
DATE: 11/10/2022	1 INCH = 200 FEET
CREATED BY: PMH	CHECKED BY:
JOB NO. 60688122	AECOM

APPENDIX A

U.S. ARMY CORPS OF ENGINEERS UPLAND DATA FORMS

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Speidel-Barnesville Tie In **City/County:** Belmont **Sampling Date:** 02-Nov-22
Applicant/Owner: AEP **State:** OH **Sampling Point:** UPL-MRK-005
Investigator(s): MRK, AJH **Section, Township, Range:** S T 8N R 6W
Landform (hillslope, terrace, etc.): Hillside **Local relief (concave, convex, none):** convex **Slope:** 4.0 % / 2.3 °
Subregion (LRR or MLRA): LRR N **Lat.:** 39.979286 **Long.:** -81.179320 **Datum:** NAD83
Soil Map Unit Name: AeC: Allegheny variant loam, 8 to 15 percent slopes **NWI classification:** NA

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: Upland data point collected within the existing transmission line right-of-way to characterize the area. ROW is surrounded by forest land and residential property.	

Hydrology

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

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

Sampling Point: UPL-MRK-005

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	
Tree Stratum (Plot size: <u>30'</u> radius)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>0</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>0.0%</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%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
0 = Total Cover				
Sapling-Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>2</u> x <u>1</u> = <u>2</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>35</u> x <u>3</u> = <u>105</u> FACU species <u>85</u> x <u>4</u> = <u>340</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Column Totals: <u>122</u> (A) <u>447</u> (B) Prevalence Index = B/A = <u>3.664</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%	
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%	
Shrub Stratum (Plot size: <u>15'</u> radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 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. _____	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%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
Herb Stratum (Plot size: <u>5'</u> radius)				Definition of Vegetation Strata: Four Vegetation Strata: Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. Woody vines – Consists of all woody vines greater than 3.28 ft in height. Five Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height. Woody vines – Consists of all woody vines, regardless of height.
1. <u>Dactylis glomerata</u>	50	<input checked="" type="checkbox"/>	41.0% FACU	
2. <u>Phleum pratense</u>	30	<input checked="" type="checkbox"/>	24.6% FACU	
3. <u>Verbesina alternifolia</u>	20	<input type="checkbox"/>	16.4% FAC	
4. <u>Dichanthelium clandestinum</u>	10	<input type="checkbox"/>	8.2% FAC	
5. <u>Symphotrichum pilosum</u>	5	<input type="checkbox"/>	4.1% FAC	
6. <u>Solidago canadensis</u>	5	<input type="checkbox"/>	4.1% FACU	
7. <u>Persicaria sagittata</u>	2	<input type="checkbox"/>	1.6% OBL	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
11. _____	0	<input type="checkbox"/>	0.0%	
12. _____	0	<input type="checkbox"/>	0.0%	
Woody Vine Stratum (Plot size: <u>30'</u> radius)				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%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
0 = Total Cover				

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

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

Soil

Sampling Point: UPL-MRK-005

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		
0-8	2.5Y	4/3	100						Silt Loam	
8-16	2.5Y	5/4	85	10YR	5/8	15	C	M	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:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147,148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (MLRA 147)
- Coast Prairie Redox (A16) (MLRA 147,148)
- Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Speidel-Barnesville Tie In **City/County:** Belmont **Sampling Date:** 02-Nov-22
Applicant/Owner: AEP **State:** OH **Sampling Point:** UPL-MRK-006
Investigator(s): MRK, AJH **Section, Township, Range:** S T 8N R 6W
Landform (hillslope, terrace, etc.): Hillside **Local relief (concave, convex, none):** convex **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR N **Lat.:** 39.979333 **Long.:** -81.176880 **Datum:** NAD83
Soil Map Unit Name: LoC: Lowell-Westmoreland silt loams, 8 to 15 percent slopes **NWI classification:** NA

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: Upland data point collected within the existing transmission line right-of-way to characterize the area. ROW is surrounded by forest land and residential property.	

Hydrology

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

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

Sampling Point: UPL-MRK-006

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	
Tree Stratum (Plot size: <u>30'</u> radius)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)
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%	_____	
6. _____	0	<input type="checkbox"/> 0.0%	_____	
7. _____	0	<input type="checkbox"/> 0.0%	_____	
8. _____	0	<input type="checkbox"/> 0.0%	_____	
0 = Total Cover				
Sapling-Sapling/Shrub Stratum (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>70</u> x 3 = <u>210</u> FACU species <u>115</u> x 4 = <u>460</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>185</u> (A) <u>670</u> (B) Prevalence Index = B/A = <u>3.622</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%	_____	
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%	_____	
0 = Total Cover				
Shrub Stratum (Plot size: <u>15'</u> radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 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>Rubus allegheniensis</u>	30	<input checked="" type="checkbox"/> 100.0%	FACU	
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%	_____	
6. _____	0	<input type="checkbox"/> 0.0%	_____	
7. _____	0	<input type="checkbox"/> 0.0%	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> radius)				Definition of Vegetation Strata: Four Vegetation Strata: Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. Woody vines – Consists of all woody vines greater than 3.28 ft in height. Five Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height. Woody vines – Consists of all woody vines, regardless of height.
1. <u>Dactylis glomerata</u>	50	<input checked="" type="checkbox"/> 32.3%	FACU	
2. <u>Echinochloa crus-galli</u>	50	<input checked="" type="checkbox"/> 32.3%	FAC	
3. <u>Solidago canadensis</u>	25	<input type="checkbox"/> 16.1%	FACU	
4. <u>Setaria pumila</u>	10	<input type="checkbox"/> 6.5%	FAC	
5. <u>Trifolium pratense</u>	10	<input type="checkbox"/> 6.5%	FACU	
6. <u>Dichanthelium clandestinum</u>	5	<input type="checkbox"/> 3.2%	FAC	
7. <u>Microstegium vimineum</u>	5	<input type="checkbox"/> 3.2%	FAC	
8. _____	0	<input type="checkbox"/> 0.0%	_____	
9. _____	0	<input type="checkbox"/> 0.0%	_____	
10. _____	0	<input type="checkbox"/> 0.0%	_____	
11. _____	0	<input type="checkbox"/> 0.0%	_____	
12. _____	0	<input type="checkbox"/> 0.0%	_____	
0 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> radius)				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%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
6. _____	0	<input type="checkbox"/> 0.0%	_____	
0 = Total Cover				

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

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

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	7.5YR	3/3	100				Sandy Loam	

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147,148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (MLRA 147)
- Coast Prairie Redox (A16) (MLRA 147,148)
- Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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:

APPENDIX B
OEPA STREAM DATA FORMS / DELINEATED
FEATURES PHOTOGRAPHS (STREAMS)



Primary Headwater Habitat Evaluation Form

29

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **AEP Speidel Barnesville Tie-in**

SITE NUMBER RIVER BASIN **Ohio** DRAINAGE AREA (mi²) **0.01**

LENGTH OF STREAM REACH (ft) **145** LAT. **39.97954** LONG. **-81.18019** RIVER CODE **NA** RIVER MILE **NA**

DATE **11/02/22** SCORER **MRK, AJH** COMMENTS

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

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

Stream flows through a forested area at the edge of existing transmission line right-of-way.

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

TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]	<input type="text" value="0"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> SILT [3 pt]	<input type="text" value="35"/>
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<input type="text" value="0"/>	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input type="text" value="10"/>
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	<input type="text" value="0"/>	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	<input type="text" value="0"/>
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<input type="text" value="10"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	<input type="text" value="25"/>
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<input type="text" value="10"/>	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	<input type="text" value="0"/>
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="text" value="10"/>	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	<input type="text" value="0"/>

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **10** (A)

Substrate Percentage Check (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **3**

TOTAL NUMBER OF SUBSTRATE TYPES: **6**

HHEI Metric Points

Substrate Max = 40

9

A + B

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

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

Pool Depth Max = 30

5

COMMENTS MAXIMUM POOL DEPTH (Inches): **2.00**

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

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

Bankfull Width Max=30

15

COMMENTS AVERAGE BANKFULL WIDTH (Feet): **3.50**

This information must also be completed

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

RIPARIAN WIDTH		FLOODPLAIN QUALITY					
L	R	L	R				
<input type="checkbox"/>	<input type="checkbox"/> (Per Bank)	<input type="checkbox"/>	<input type="checkbox"/> (Most Predominant per Bank)	<input type="checkbox"/>	<input type="checkbox"/> L	<input type="checkbox"/>	<input type="checkbox"/> R
<input type="checkbox"/>	<input type="checkbox"/> Wide >10m	<input type="checkbox"/>	<input type="checkbox"/> Mature Forest, Wetland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> Moderate 5-10m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Immature Forest, Shrub or Old Field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> Narrow <5m	<input type="checkbox"/>	<input type="checkbox"/> Residential, Park, New Field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> None	<input type="checkbox"/>	<input type="checkbox"/> Fenced Pasture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS

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

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

COMMENTS

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

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

STREAM GRADIENT ESTIMATE

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

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

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

DOWNSTREAM DESIGNATED USE(S)

<input checked="" type="checkbox"/> WWH Name: North Fork Captina Creek (HUC12-050301060901)	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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

USGS Quadrangle Name: **Barnesville** NRCS Soil Map Page: NRCS Soil Map Stream Order
County: **Belmont** Township / City: **Barnesville**

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: **11/01/22** Quantity: **0.10**
Photograph Information: **Upstream, downstream, substrate**
Elevated Turbidity? (Y/N): N Canopy (% open): **20**
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

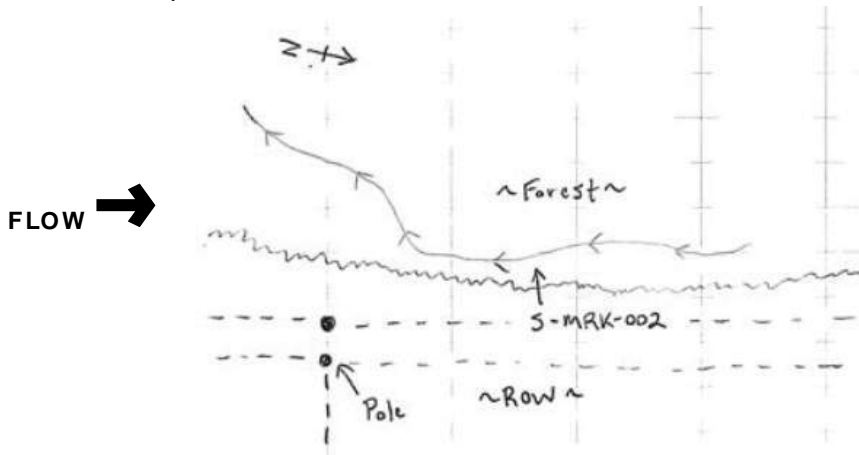
Additional comments/description of pollution impacts:
NA

BIOTIC EVALUATION

Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:

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

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



Client Name: AEP	Site Location: Spebar	Project No.: 60688122
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S-MRK-002
Date: November 02, 2022
Description: Intermittent Facing Upstream



S-MRK-002
Date: November 02, 2022
Description: Intermittent Facing Downstream



Client Name: AEP	Site Location: Spebar	Project No. 60688122
----------------------------	---------------------------------	--------------------------------

S-MRK-002
Date: November 02, 2022
Description: Intermittent Facing Substrate



APPENDIX C
HABITAT PHOTOGRAPHIC RECORD

Client Name: AEP	Site Location: Speidel Barnesville Tie-In Project	Project No.: 60688122
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PH-01
Date: November 02, 2022
Description: Old Field Habitat Facing South



PH-02
Date: November 02, 2022
Description: Urban Habitat Facing East



Client Name: AEP	Site Location: Speidel Barnesville Tie-In Project	Project No. 60688122
----------------------------	---	--------------------------------

PH-03
Date: November 02, 2022
Description: Old Field Habitat Facing North



APPENDIX D
AGENCY COORDINATION

Holmes, Joshua

From: Ohio, FW3 <ohio@fws.gov>
Sent: Wednesday, July 27, 2022 10:06 AM
To: Holmes, Joshua
Cc: nathan.reardon@dnr.state.oh.us; Wyza, Eileen; Hrishenko, Alexander; Miller, Brian; ajtoohey@aep.com
Subject: [EXTERNAL] AEP - Pumpkin Station D250 & Speidel-Barnesville T-line Build Project, Belmont County, Ohio



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

Project Code: 2022-0065274

Dear Mr. Holmes,

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

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

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

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

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

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

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

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

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

Sincerely,



Patrice Ashfield
Field Office Supervisor

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



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

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

August 15, 2022

Joshua Holmes
AECOM
Foster Plaza 6
681 Anderson Drive, Suite 120
Pittsburgh, Pennsylvania 15220

Re: 22-0749; AEP Pumpkin Station D250 & Speidel-Barnesville T-line Build Project

Project: The proposed project involves building a new greenfield substation within a 10-acre parcel to replace the existing Barnesville Station proposed for retirement.

Location: The proposed project is located in Warren Township, Belmont County, Ohio.

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

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

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

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

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

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting

inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible.

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

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

State Endangered

butterfly (*Ellipsaria lineolata*)

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

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

State Endangered

western banded killifish (*Fundulus diaphanus menona*)

State Threatened

channel darter (*Percina copelandi*)

paddlefish (*Polyodon spathula*)

river darter (*Percina shumardi*)

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them

unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

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

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

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

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

The [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 E

DESKTOP ASSESSMENT FOR WINTER BAT HABITAT



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

July 22, 2022

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

Via email: environmentalreviewrequest@dnr.state.oh.us; NHDRequest@dnr.state.oh.us

Reference: Request for Technical Assistance, Pumpkin Station D250 & Speidel -
Barnesville Tline Build Project, Belmont County, Ohio

Dear Mr. Kessler:

AEP Ohio Transmission Company, Inc. (AEP), is formally requesting that the Ohio Department of Natural Resources (ODNR) complete a review for the proposed Pumpkin Station D250 & Speidel-Barnesville Tline Build Project (Project) in Belmont County, Ohio. The purpose of this project is to build a new greenfield substation within a 10-acre parcel to replace the existing Barnesville Station proposed for retirement in Belmont County, Ohio. This includes building a new greenfield 0.30-mile connector from the proposed Pumpkin Station to the existing Barnesville-Somerton transmission line located in Belmont County, Ohio. The Study Area is located on the Belmont, Ohio U.S. Geologic Survey 7.5' topographical quadrangles as displayed on the Topographic Project Overview Map (Figure 1).

AECOM completed a desktop review of publicly available data to identify underground voids which could be potential hibernation sites for overwintering bats (hibernacula) within 0.25-miles of the Project area. The data sources utilized include USGS topographical maps, aerial photography, and ODNR's Division of Mineral Resources and Geological Survey Data for Known Mining Activity and Karst Geology/Sinkholes as shown on Figure 1 and 2. Based on the available desktop resources, no abandoned underground and surface mines or documented mine entrances/openings are located within 0.25-mile of the Project. No karst features were identified within 0.25-mile of the Project. The closest feature is located approximately 0.45-mile west of the Project area.

Please provide us with the results of the ODNR's environmental review, including results of the ODNR Natural Heritage Database search, 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
Phone: (412-667-9172); brian.miller1@aecom.com

CC: Amy J. Toohey
Environmental Specialist-Consultant
Phone: (614-565-1480); ajtoohey@aep.com

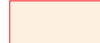

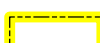
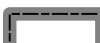
Attachments: Figure 1 – Topographic Project Overview; Figure 2 – Aerial Project Overview; Natural Heritage Data Request Form; Electronic Shapefiles(.shp)

BOUNDLESS ENERGY™

No mining activities, karst features, and/or sink holes are within the extent of the map frame. The closest feature is 0.45 miles west of the Project area.



Legend

-  Project Area
-  Quarter Mile Review Boundary
-  Ohio USGS 7.5' Topographic Quadrangle
-  County Boundary

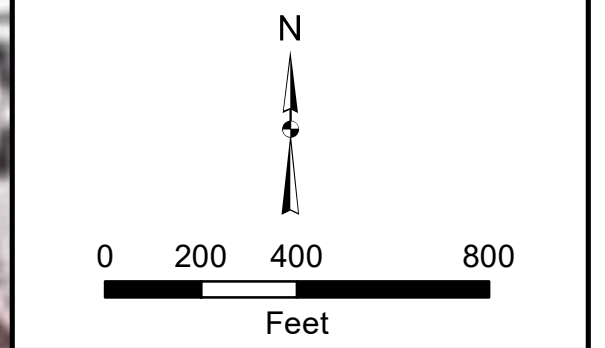
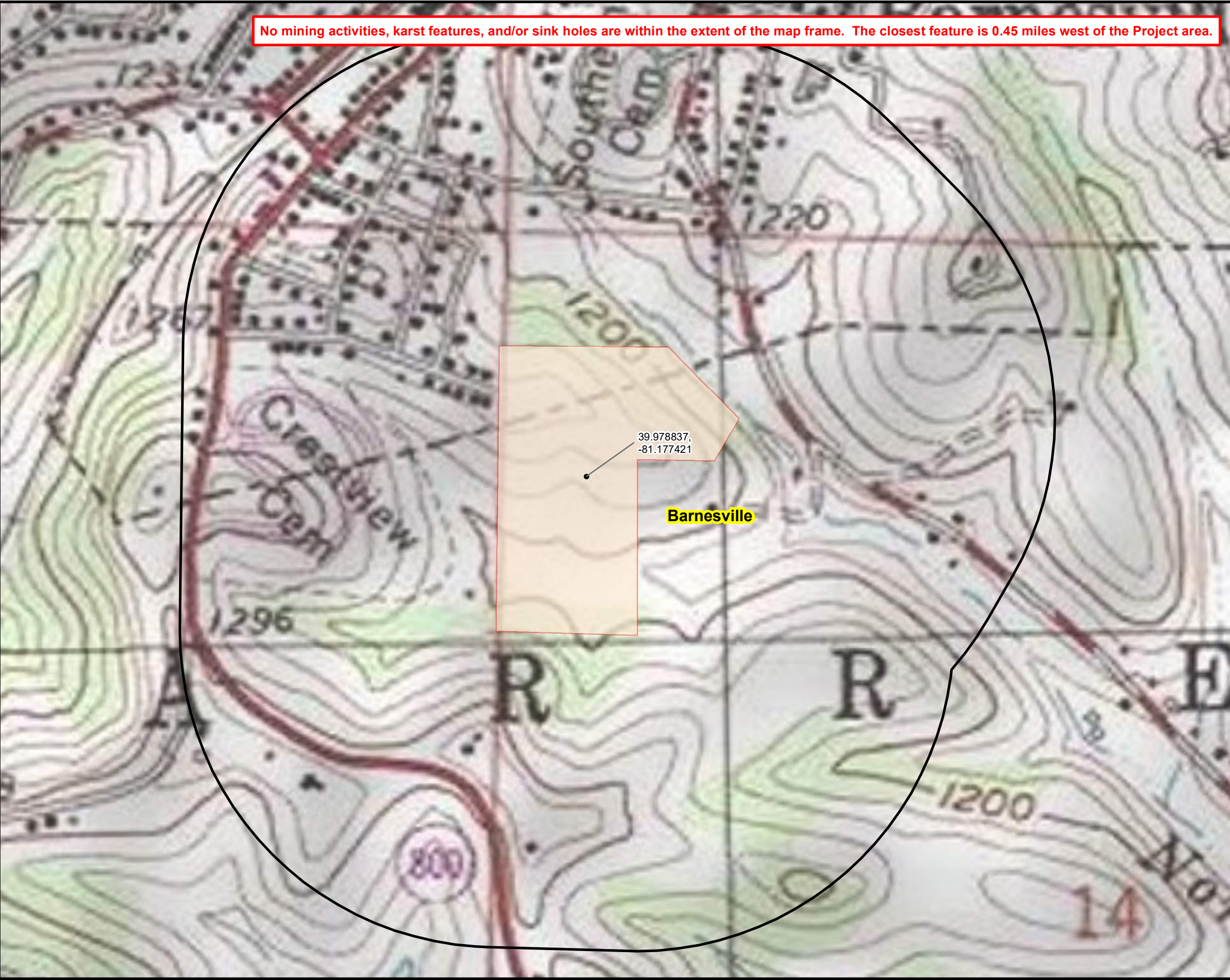


FIGURE 1
TOPOGRAPHIC PROJECT OVERVIEW

DATE: 7/22/2022	1 INCH = 400 FEET
CREATED BY: NAB	CHECKED BY: JH
JOB NO.: 60683729	AECOM





Date Saved: 7/22/2022
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60688117_AEP_PumpkinStation\2_MXD\0_Agency_Coordination\ODNR\GavinMeigs_Fig1_Topo_Overview.mxd



No mining activities, karst features, and/or sink holes are within the extent of the map frame. The closest feature is 0.45 miles west of the Project area.

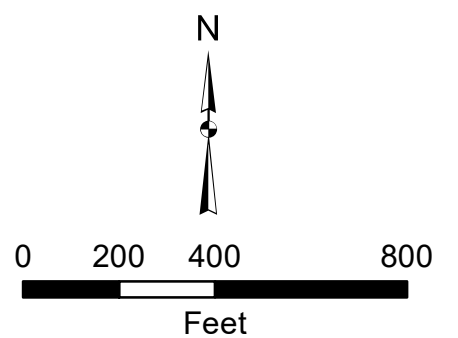


Legend

-  Project Area
-  Quarter Mile Review Boundary
-  Ohio USGS 7.5' Topographic Quadrangle
-  County Boundary

39.978837,
-81.177421

Barnesville



Pumpkin Station
D250 Project

FIGURE 2
AERIAL PROJECT OVERVIEW

DATE: 7/22/2022	1 INCH = 400 FEET
CREATED BY: NAB	CHECKED BY: JH
JOB NO.: 60683729	AECOM

Date Saved: 7/18/2022
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60688117_AEP_PumpkinStation\2_MXD\0_Agency_Coordination\ODNR\PumpkinStation_Fig2_Aerial_Overview.mxd

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on
6/29/2023 10:52:47 AM**

in

Case No(s). 23-0694-EL-BNR

Summary: Notice Construction Notice. electronically filed by Hector Garcia-Santana
on behalf of AEP Ohio Transmission Company, Inc..