

# **Construction Notice for the Cartwright 138 kV Switch Project**



An **AEP** Company

BOUNDLESS ENERGY™

PUCO Case No. 21-1168-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.

November 29, 2021

# CONSTRUCTION NOTICE FOR CARTWRIGHT 138 KV SWITCH PROJECT

## CONSTRUCTION NOTICE

### AEP Ohio Transmission Company, Inc. Cartwright 138 kV Switch Project

#### 4906-6-05

AEP Ohio Transmission Company, Inc. (“AEP Ohio Transco” or the “Company”) provides the following information to the Ohio Power Siting Board (“OPSB”) pursuant to Ohio Administrative Code (OAC) 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 is proposing the Cartwright 138 kV Switch Project (“Project”), in Addison Township, Gallia County, Ohio. The Project involves installing a new steel 3-way phase-over-phase switch off centerline but within the existing right-of-way (“ROW”) of the Buckeye Co-Op Extension-Addison 138 kV transmission line to replace the existing hard tap along the South Point-Sporn 138 kV line. The Project also requires rebuilding the existing single-circuit Buckeye Co-op Extension-Addison 138 kV transmission line to a double circuit line; however, that line is owned by Ohio Power Company and will be filed separately. The location of the Project is shown on Figure 1 in Appendix A.

The Project meets the requirements for a Construction Notice (CN) because it is within the types of project defined by OAC Rule 4906-1-01, Appendix A (Application Requirement Matrix for Electric Power Transmission Lines), Item (2)(a), which states the following:

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

*(a) Two miles or less.*

The Project has been assigned PUCO Case No. 21-1168-EL-BNR

##### B(2) Need For The Project

**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.**

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The Project is necessary to install a new 138 kV phase-over-phase switch to replace a hard tap on the South Point - Sporn 138 kV line. This hard tap serves a Buckeye Rural Electric Cooperative customer. In association with this Project, Ohio Power Company will rebuild approximately 0.2 mile of existing transmission line from the hard tap to the customer's Addison Substation.

Hard taps limit AEP's ability to sectionalize during outages (planned or unplanned) and can result in over tripping and/or mis-operations affecting customers served from this line. Failure to address the existing hard tap and install the new phase-over-phase switch will result in continued reliability issues to the customer's delivery point and others served on the South Pointe-Sporn 138 kV line. While portions of the customer's load are transferrable to other sources, under high loading conditions, transferring loads may not be possible. As such, replacing the hard tap with this switch will significantly improve reliability to the customer substation, allow maintenance to occur without significant interruptions to the 138 kV through path, and help with restoration times in this remote location.

Addison Substation currently serves 4 MVA of load and approximately 1,200 customers. Customers served from the South Pointe-Sporn 138 kV line have experienced over one million customer minutes of interruption over the last five years. Without the Project, the outages and customer minutes of interruptions will continue to get worse as the line asset deteriorate, restoration activities will continue to be more difficult, and service interrupts to the 138 kV through path will continue to occur.

The need and solution for this Project were presented to PJM on 5/20/2019 and 12/18/2019, then subsequently assigned a PJM # of s2159. This Project was not included in the Company's most recent Long-Term Forecast Report because a new transmission line asset is not being created.

### **B(3) Project Location**

**The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.**

The location of the Project in relation to existing transmission lines and station is shown on Figure 1, in 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 unable to be constructed along the existing Buckeye Co-Op Extension-Addison 138 kV transmission line, as an outage cannot be taken long enough to construct the new switch without

## CONSTRUCTION NOTICE FOR CARTWRIGHT 138 KV SWITCH PROJECT

interrupting service to customers. Therefore, the Project is required to be constructed offset from the existing transmission line. However, the proposed location is just east of the existing transmission line, allowing for safe and reliable construction of the new switch while the existing facilities remain in service. The proposed location of the switch is more than 200 feet from the nearest residence, utilizes existing easements, and will not impact any delineated streams or wetlands. Thus, the switch structure location is the most appropriate solution to meet the need in the area.

### **B(5) Public Information Program**

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

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

### **B(6) Construction Schedule**

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

Construction of the Project is planned to begin on March 2022 with an anticipated in-service date of July 2022.

### **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.**

Appendix A, Figure 1 identifies the location of the Project area on a United States Geological Survey 1:24,000 quadrangle map. Figure 2, in Appendix A identifies the Project on a September 2020 aerial image (ESRI World Imagery).

To visit the Project from Columbus, Ohio, take US-23 toward Circleville for approximately 40 miles. Keep left to continue on US-35 E/US-50 E toward Jackson/Athens for 54 miles. Take exit for OH-160 toward Vinton/Gallipolis. Turn left onto OH-160 for 0.6 miles. Turn right onto Kemper Hollow Rd for 3 miles. Continue straight on to Yale School Rd for 1 mile. Turn left onto Bulaville Pike for 0.8 miles. Turn right onto Addison Pike for 2 miles. Turn left onto Blazer Road. The project will be accessible south of Blazer Rd at latitude 38.909045, longitude -82.191545.

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**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.**

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

<b>Property Parcel No.</b>	<b>New Agreement Needed</b>	<b>Easement Agreement Obtained (Yes/No)</b>
00-18-3000.400	Exclusive Easement	No

**B(9) Technical Features**

**The applicant shall describe the following information regarding the technical features of the project:**

**B(9)(a) Operating Characteristics**

**The applicant shall provide operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.**

The Project is anticipated to include the following:

- Voltage: 138 kV
- Conductors: Single Circuit: 795 ACSR (Drake)
- Static Wire: 7#8 Alumoweld
- Insulators: Polymer
- ROW Width: 100 Feet
- Structure Types: (1) custom single pole steel foundation 3-way switch structure

**B(9)(b) Electric 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.**

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

**B(9)(c) Estimated Costs**

**The estimated capital cost of the project.**

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The estimated capital cost of the Project, comprised of applicable tangible and capital costs, is approximately \$698,000, 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.

### **B(10) Social and Ecological Impacts**

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

#### **B(10)(a) Land Uses**

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

The Project area is located adjacent to the existing Buckeye Co-Op Extension-Addison 138 kV transmission line, approximately 100 feet northwest of Buckeye's existing Addison Station, in unincorporated Addison Township, Gallia County. The Project area is not located in any incorporated municipality.

The Project area consists of rural residential and forested areas. There are no known parks, wildlife management areas, or nature preserve lands within 1,000 feet of the Project.

On-site vegetative communities consist of upland scrub/shrub, upland woods, maintained lawn, and old field.

The Project area is in the Campaign Creek subwatershed (HUC12 code: 050302020902). One pond was delineated within the Project area. No other environmental or cultural resources are expected to be impacted as a result of this Project. Archaeological and cultural resources, as well as areas of ecological features are further discussed in Sections 4906-6-05 (B)(10)(c) and 4906-6-05 (B)(10)(f), respectively.

#### **B(10)(b) Agricultural Land**

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

The Project is not located within registered agricultural district lands, based on coordination with the Gallia County Auditor's Office on October 26, 2021. Additionally, the Project area does not contain any active agricultural row crop land.

**B(10)(c) Archaeological or Cultural Resources**

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

A Phase I Cultural Resource Management Investigations for the Project was provided to the Ohio Historic Preservation Office ("SHPO") in August 2021 (see Appendix C). The surveys concluded that the Project will have no adverse effects on historic properties and no additional cultural resources investigations were recommended for the Project. The SHPO concurred with the Company's recommendation and stated that the Project will have no effect on historic properties and that no further archaeological work is necessary.

**B(10)(d) Local, State, and Federal Requirements**

**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 discharge under NPDES General Permit for Discharges of Storm Water Associated with Construction Activity OHC000005. The Company will implement and maintain best management practices as outlined in the Project-specific Storm Water Pollution Prevention Plan to minimize erosion and sediment to Project surface waters during storm events.

The Company's consultant completed a wetland delineation and stream identification field review of the Project area (Appendix D). One pond was identified within the study area. The Project will not impact any wetlands or waterbodies. Therefore, impacts to aquatic resources are not anticipated and Clean Water Act Section 401/404 permits will not be needed.

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

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

**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.**

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A desktop review of the Project area was completed relative to Section 7 of the Endangered Species Act (ESA). On-site environmental and ecological assessments were conducted on August 5, 2021 to evaluate the Project area for the occurrence of potential habitat for threatened and endangered (T&E) species. On September 4, 2020, the Company’s consultant requested information on T&E species and sensitive habitats within the Project area and its vicinity from the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS). The species list generated by the USFWS consultation letter and the ODNR consultation letter for the Project area is provided in the following table, which also summarizes the findings regarding the identified species.

**Table 2. Rare, Threatened and Endangered Species Occurrence**

Common Name	Species Name	Federal Status	State Status	Potential Impacts
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered	No caves or mines are located within the Project area. Tree clearing will be required for the Project; however, clearing will occur between the dates of October 1 – March 31. Therefore, no impacts to bat species are anticipated.
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Endangered	
Little brown bat	<i>Myotis lucifugus</i>	—	Endangered	
Tricolored bat	<i>Perimyotis subflavus</i>	—	Endangered	
Channel darter	<i>Percina copelandi</i>	—	Threatened	No potential habitat (streams) are located within the Project area.

On September 14, 2020, USFWS responded that Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) have the potential to occur within the Project area, and no known records of sensitive habitats were identified within the Project area (Appendix C). Tree clearing will be required for the Project; however, clearing will occur between the dates of October 1–March 31. Therefore, no impacts to bat species are anticipated.

On November 9, 2020, ODNR responded that channel darter (*Percina copelandi*), multiple listed freshwater mussel species, little brown bat (*Myotis lucifugus*), tricolored bat (*Perimyotis subflavus*), Indiana bat, and northern long-eared bat have the potential to occur within the Project area (Appendix C). No in-stream work is proposed for the project; therefore, no impacts to the channel darter or the listed freshwater mussel species are anticipated. Additionally, tree clearing will be required for the Project; however, clearing will occur between the dates of October 1–March 31. Therefore, no impacts to bat species are anticipated.

**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**

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### **statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.**

An Ecological Survey was conducted on August 5, 2021 (see Appendix D). The field delineation identified one pond within the Project's environmental survey area, totaling less than 0.1 acre. The Project will not impact any wetlands or waterbodies. In addition, the Project area consists of upland forested areas, upland scrub-shrub areas, a maintained lawn area, and old field areas. The Project area is surrounded by rural residential areas and forested areas.

There are no national, state or local parks or forests, designated or proposed wilderness areas, national or state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, or wildlife sanctuaries located within the Project area or the potential disturbance area of the Project.

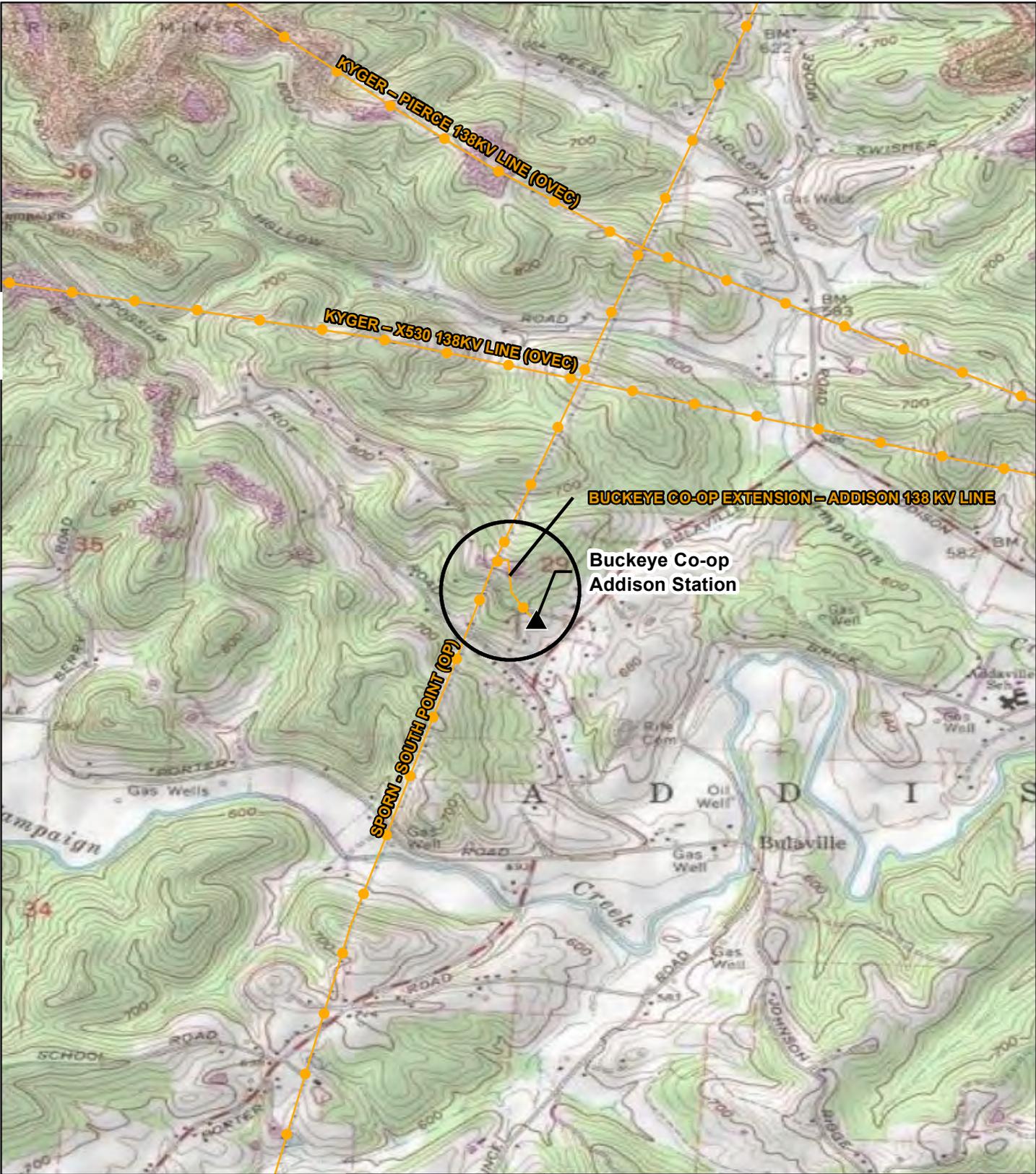
The FEMA Flood Insurance Rate Map was reviewed to identify floodplains/flood hazard areas within the Project area (specifically, map number 39053C0165E). Based on this mapping, no FEMA 100-year floodplains are located in the Project area.

### **B(10)(g) Other Information/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**  
**Maps**



- ▲ Substation
- Existing 138 kV Transmission Lines
- Project Area

Data Sources: AEP, USGS 7.5' Topographic Quadrangles (Addison)

Coordinate System and Datum:  
NAD 83 State Plane Ohio South, Feet



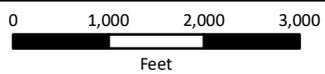
November 03, 2021

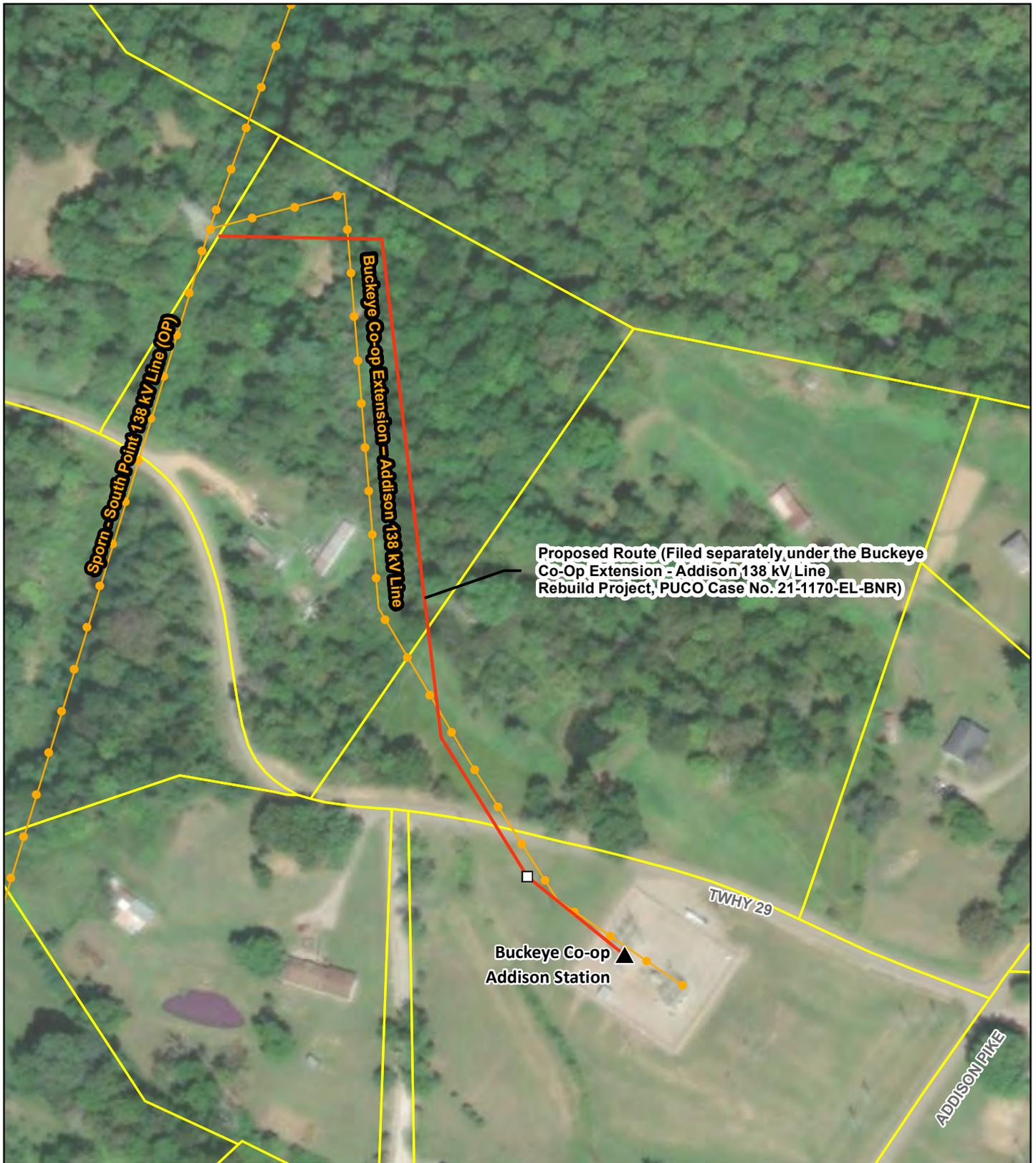


**FIGURE 1**  
**TOPOGRAPHIC OVERVIEW**



Cartwright 138 kV Switch Project





- Proposed Switch Structure
- ▲ Substation
- Proposed Route (Filed Separately)
- Existing 138kV Transmission Line
- Parcel Boundary

Data Sources: AEP, ESRI World Imagery Service (Clarity)

Coordinate System and Datum:  
 NAD 83 State Plane  
 Ohio South, Feet

November 12, 2021



**FIGURE 2  
AERIAL MAP**

AEP OHIO TRANSMISSION COMPANY

Cartwright 138 kV Switch Project

0 170  
Feet

**Appendix B**  
**PJM Submission**

# AEP Transmission Zone: Supplemental Gallia County

**Need Number:** AEP-2019-OH026

**Process Stage:** Solutions Meeting 12/18/2019

**Previously Presented:** Needs Meeting 05/20/2019

**Supplemental Project Driver:** Operational Flexibility

**Specific Assumptions Reference:** AEP Guidelines for Transmission Owner Identified Needs

**Problem Statement:**

- The 58-mile South Point – Sporn 138 kV double circuit line has four delivery points that are connected via hard taps. The hard taps complicate restoration activities and extend outages.
- The four Buckeye Coop delivery points are at Mercerville, Windsor, Fayette, and Addison. These stations are in a remote part of AEP's service territory, which makes outage restoration activities more difficult and resulting in longer outages.
- Over the last five years these delivery points have accumulated 1,348,755 CMI.



# AEP Transmission Zone: Supplemental Gallia, County

**Need Number:** AEP-2019-OH026

**Process Stage:** Solution Meeting 12/18/2019

**Proposed Solution:**

Install 3-way 138 kV (2000 A) MOAB's at Mercerville hard tap, including dead end structures to connect to new switch pole location. **Estimated Cost: \$2.2M**

Install 3-way 138 kV (2000 A) MOAB's at Windsor hard tap. **Estimated Cost: \$1.3M**

Install 3-way 138 kV (2000 A) MOAB's at Fayette hard tap. Extend the existing line 0.25 miles to the new switch location. **Estimated Cost: \$3.5M**

Install 3-way 138 kV (2000 A) MOAB's at Addison hard tap, including dead end structures to connect to new switch pole location. **Estimated Cost: \$2.5M**

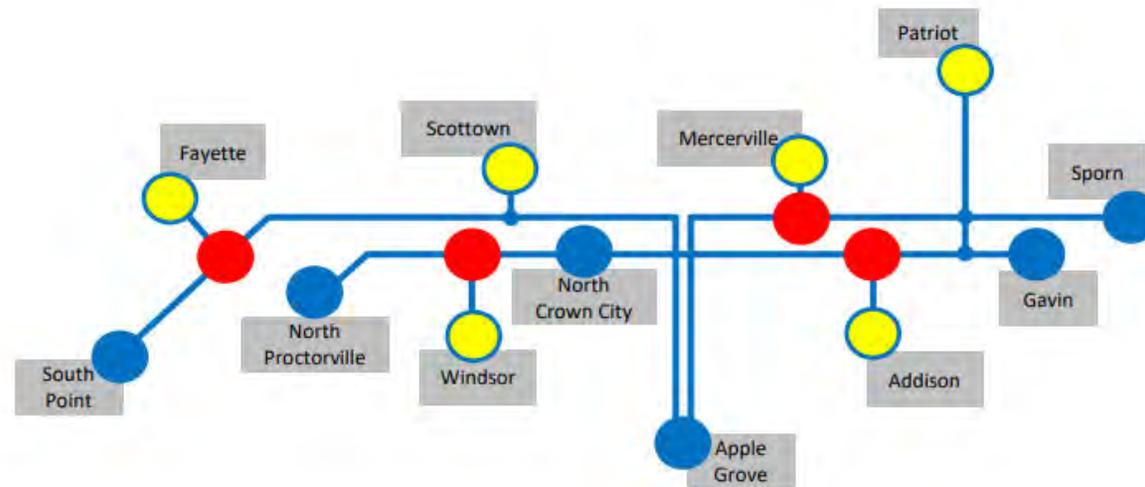
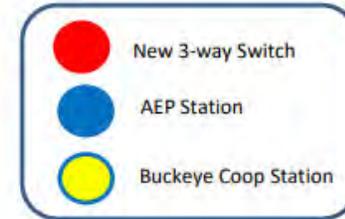
**Total Estimated Transmission Cost: \$9.5M**

**Alternatives:**

No viable alternatives.

**Projected In-Service:** 4/30/2021

**Project Status:** Scoping



**Appendix C**  
**Agency Correspondence**

## Miloski, Sarah

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**From:** Ohio, FW3 <ohio@fws.gov>  
**Sent:** Monday, September 14, 2020 3:38 PM  
**To:** Miloski, Sarah  
**Cc:** nathan.reardon@dnr.state.oh.us; Parsons, Kate; Bosiljevac, Maggie  
**Subject:** AEP's Cartwright Switch Project, Northwest of Addison in Galia County



UNITED STATES DEPARTMENT OF THE  
U.S. Fish and Wildlife Service  
Ecological Services Office  
4625 Morse Road, Suite 104  
Columbus, Ohio 43230

TAILS# 03E15000-2020-TA-2441

Dear Ms. Miloski,

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  $\geq 3$  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  $\geq 3$  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  $\geq 3$  inches dbh cannot be avoided, we recommend removal of any trees  $\geq 3$  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 <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), 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](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](mailto: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](mailto:ohio@fws.gov).

Sincerely,



Patrice M. Ashfield  
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW  
Kate Parsons, ODNR-DOW

## Miloski, Sarah

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**From:** Driscoll, Mark  
**Sent:** Friday, November 13, 2020 8:45 AM  
**To:** Miloski, Sarah  
**Subject:** FW: 20-886; Arcadis - AEP Cartwright Switch Project Comments  
**Attachments:** 20-886; Arcadis - AEP Cartwright Switch Project Comments.pdf; 2020 State bat survey guidance\_6\_3\_20.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Sarah are you in the office today?

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**From:** sarah.tebbe@dnr.ohio.gov <sarah.tebbe@dnr.ohio.gov>  
**Sent:** Tuesday, November 10, 2020 8:59 AM  
**To:** Driscoll, Mark <Mark.Driscoll@arcadis.com>  
**Subject:** 20-886; Arcadis - AEP Cartwright Switch Project Comments

Hi Mark,

Attached are the ODNR comments on the subject project.

Thanks,

Sarah Tebbe  
Ohio Department of Natural Resources  
REALM Office of Environmental Services  
2045 Morse Road  
Columbus, Ohio 43229





# 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

November 9, 2020

Mark Driscoll  
Arcadis U.S., Inc.  
4665 Cornell Road, Suite 200  
Cincinnati, Ohio 45241

**Re:** 20-886; AEP Cartwright Switch Project

**Project:** The proposed project involves removing an existing hard tap to a customer, installing a new three-way switch near the existing Addison Station, and rebuilding approximately 1,200 feet of the existing transmission line.

**Location:** The proposed project is located in Addison Township, Gallia County, Ohio.

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

**Natural Heritage Database:** The Natural Heritage Database has the following record at or within a one-mile radius of the project area:

Channel darter (*Percina copelandi*), State threatened

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity.

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. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally 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 species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH  $\geq 20$  if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the “OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING”. If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31, however, limited summer tree cutting may be acceptable after consultation with DOW (contact Sarah Stankavich, [sarah.stankavich@dnr.state.oh.us](mailto:sarah.stankavich@dnr.state.oh.us)).

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS “Range-wide Indiana Bat Survey Guidelines.” If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, [sarah.stankavich@dnr.state.oh.us](mailto:sarah.stankavich@dnr.state.oh.us) 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 DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

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

#### Federally Endangered

snuffbox (*Epioblasma triquetra*)  
sheepnose (*Plethobasus cyphus*)  
fanshell (*Cyprogenia stegaria*)  
pink mucket (*Lampsilis orbiculata*)

#### State Endangered

long-solid (*Fusconaia maculata maculata*)  
little spectaclecase (*Villosa lienosa*)  
elephant-ear (*Elliptio crassidens*)  
yellow sandshell (*Lampsilis teres*)  
pocketbook (*Lampsilis ovata*)  
Ohio pigtoe (*Pleurobema cordatum*)  
washboard (*Megaloniais nervosa*)  
butterfly (*Ellipsaria lineolata*)  
monkeyface (*Quadrula metanevra*)

#### State Threatened

threehorn wartyback (*Obliquaria reflexa*)  
black sandshell (*Ligumia recta*)

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

goldeye (*Hiodon alosoides*)  
shoal chub (*Macrhybopsis hyostoma*)  
gilt darter (*Percina evides*)  
Ohio lamprey (*Ichthyomyzon bdellium*)  
shovelnose sturgeon (*Scaphirhynchus platyrhynchus*)

State Threatened

American eel (*Anguilla rostrata*)  
channel darter (*Percina copelandi*)  
lake chubsucker (*Erimyzon sucetta*)  
blue sucker (*Cycleptus elongatus*)  
paddlefish (*Polyodon spathula*)  
river darter (*Percina shumardi*)

The DOW recommends no in-water work in perennial streams from April 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 timber rattlesnake (*Crotalus horridus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species, utilizing dry slopes and rocky outcrops. In addition to using wooded areas, the timber rattlesnake utilizes sunlit gaps in the canopy for basking and deep rock crevices for overwintering. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the 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 May 15 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. 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. Your local floodplain administrator contact information can be found at the website below.

[http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List\\_8\\_16.pdf](http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf)

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or [Sarah.Tebbe@dnr.state.oh.us](mailto:Sarah.Tebbe@dnr.state.oh.us) if you have questions about these comments or need additional information.

Mike Pettegrew  
Environmental Services Administrator (Acting)



In reply, refer to  
2021-GAL-52309

September 8, 2021

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

**RE: Cartwright Switch and .3 km (.2 mi) Transmission Line, Addison Township, Gallia County, Ohio**

Dear Mr. Weller:

This letter is in response to the correspondence received on August 10, 2021 regarding the proposed Cartwright Switch and .3 km (.2 mi) Transmission Line in Addison Township, Gallia 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 Cartwright Switch and .3 km (.2 mi) of Transmission Line in Addison Township, Gallia County, Ohio* by Ryan J. Weller and Scott A. McIntosh (Weller & Associates, Inc. 2021).

A literature review, visual inspection, 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 archeological investigation is needed.

Three (3) cemeteries are located adjacent to the project area; Shaver Cemetery (OGSID 3816), Vance Cemetery (OGSID 13466) and Daniel Cemetery (OGSID 3802). The location of all three (3) cemeteries are not confirmed, and could not definitively be confirmed with available historic documents. As the cemeteries were not identified during the field investigations, within the project area, it is unlikely the proposed project will affect any of the cemeteries.

A literature review and field survey were completed as part of the investigations. A total of four (4) architectural resources were identified within the Area of Potential Effects (APE) during the field survey. It is Weller's recommendation that none of these properties are eligible for inclusion in the National Register of Historic Places (NRHP). Our office agrees with Weller's recommendations of eligibility.

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 [khorricks@ohiohistory.org](mailto:khorricks@ohiohistory.org) or Joy Williams at [jwilliams@ohiohistory.org](mailto:jwilliams@ohiohistory.org). Thank you for your cooperation.

Sincerely,

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

Krista Horrocks, Project Reviews Manager  
Resource Protection and Review

RPR Serial No: 1089630

**Appendix D**  
**Ecological Report**

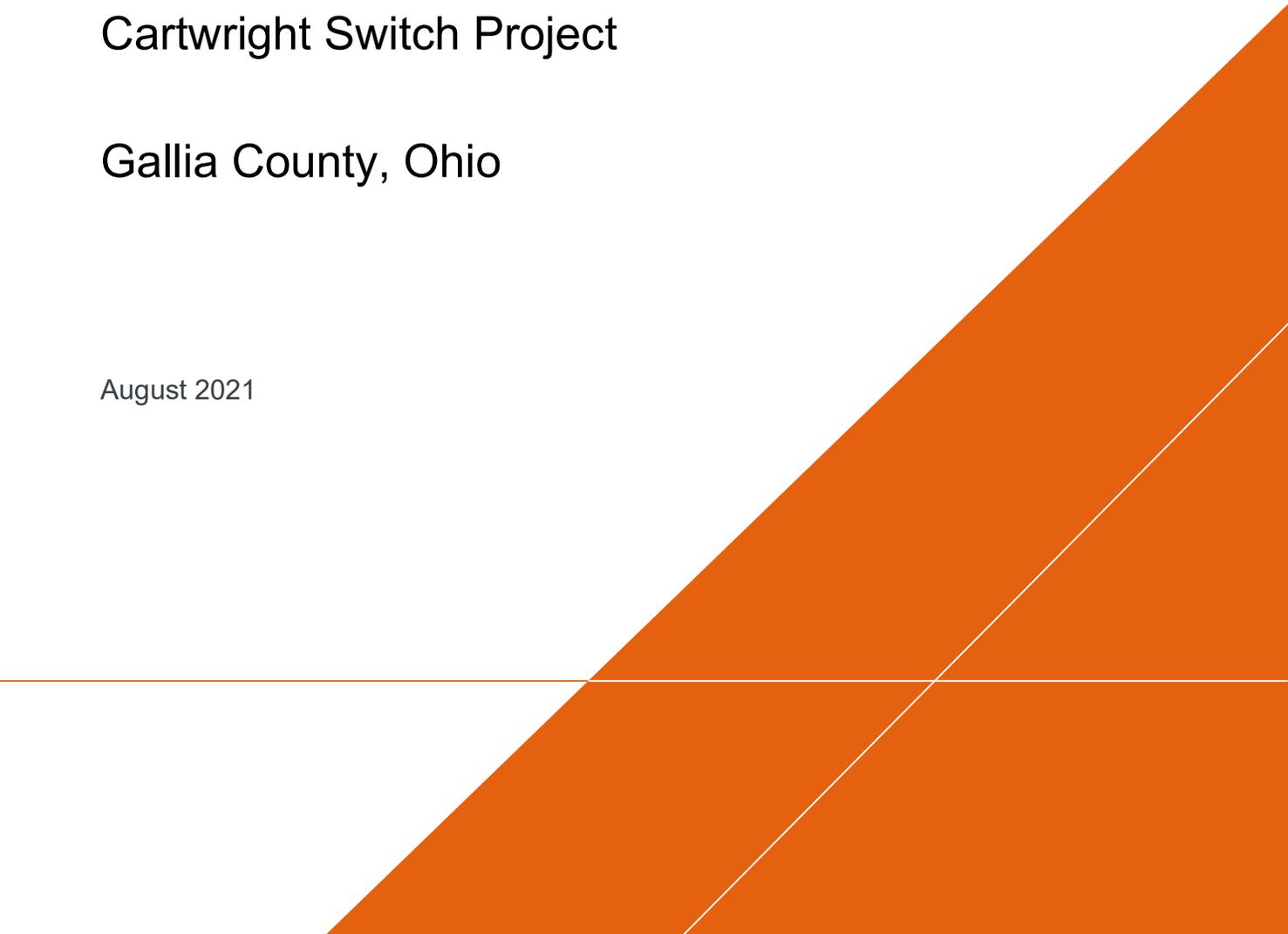
American Electric Power

# WETLAND AND WATERBODY DELINEATION REPORT

Cartwright Switch Project

Gallia County, Ohio

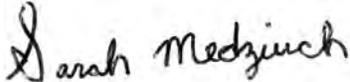
August 2021



## WETLAND AND WATERBODY DELINEATION REPORT

Cartwright Switch Project

Gallia County, Ohio



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Sarah Medziuch  
Environmental Scientist



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Stephen Chu, PWS  
Senior Technical Review

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August 2021

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A Antecedent Precipitation

B Photographic Log

C Pond Data Forms

D USFWS and ODNR Rare, Threatened, and Endangered Species Information

## 1 INTRODUCTION

This Wetland and Waterbody Delineation Report (Report) summarizes the results of wetland and waterbody delineation surveys conducted on August 5, 2021, by Arcadis U.S., Inc. (Arcadis) on behalf of American Electric Power (AEP) for the Cartwright Switch Project (Project). The Project is in Addison Township, Gallia County, Ohio, and involves removing an existing hard tap to a customer, installing a new three-way switch near the existing Addison Station, and rebuilding approximately 1,200 feet of the existing transmission line. The Project is located at N 38.91161 W 82.194238 and the environmental survey area (ESA) is approximately 9.59 acres (**Figure 1**).

The purpose of the delineation was to assess the presence or absence of wetlands or other waters that may be affected by the proposed Project. One pond was identified within the ESA. No wetlands or streams were identified within the ESA.

## 2 BACKGROUND INFORMATION

Prior to conducting the wetland and waterbody delineation survey, Arcadis reviewed the following resources to identify the potential location and extent of wetlands and waterbodies within the Project area:

- United States Geological Survey (USGS) topographic map (*Addison* quadrangle; USGS 1983),
- USGS National Hydrography Dataset (NHD-mapped streams) (USGS 2012),
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) dataset (USFWS 2007),
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2011),
- United States Department of Agriculture Natural Resource Conservation Service (NRCS) Web Soil Survey of Gallia County, Ohio (NRCS 2018); and
- Aerial imagery (ESRI 2019)

### 2.1 USGS Topographic Map

The USGS topographic map (**Figure 1**), which identifies intermittent and perennial streams, indicates that no blue-line streams are mapped within the ESA.

### 2.2 USGS NHD

The NHD represents the drainage network with features such as rivers, streams, canals, lakes, ponds, coastline, dams, and stream gauges (USGS 2020). No NHD waterbodies are mapped within the ESA (**Figure 2**).

The ESA lies within the Campaign Creek (United States Geologic Survey [USGS] Hydrologic Unit Code [HUC] 050302020902) subwatershed of the larger Upper Ohio-Shade Watershed (USGS HUC 05030202).

(USGS HUC 05030202; USGS 2012). The nearest traditionally navigable waterway (TNW) with a hydrologic surface connection to the waterbodies within the ESA is the Ohio River (USACE, n.d.).

### 2.3 USFWS NWI Dataset

NWI maps are used as a guide, along with other data, to indicate the potential presence of wetlands. The information is often out of date and not necessarily field-verified. The presence of an NWI feature is not a definitive indicator that a wetland or waterbody is present. One palustrine unconsolidated bottom intermittently exposed diked/impounded (PUBGh) NWI feature is mapped within the southern portion of the ESA (Figure 2; USFWS 2007).

### 2.4 FEMA National Flood Hazard Layer

The identification and location of the mapped 100-year flood hazard zones within the ESA was determined by reviewing the FEMA National Flood Hazard Layer (FEMA 2011). The ESA is within an area of minimal flood hazard (Zone X; Figure 2). The extent of the regional mapped FEMA 100-year flood hazard zone is shown in Figure 2.

### 2.5 Digital Soil Survey of Gallia County, Ohio

According to the NRCS Web Soil Survey for Gallia County (NRCS 2018), the following four soil units are mapped within the ESA (Figure 3). Three of the soil map units were listed as non-hydric. The remaining soil map unit was listed as predominantly non-hydric. Generally, soil units identified as hydric contain soils that indicate through their color and structure that they have experienced dominantly reducing (i.e., oxygen poor) conditions, which are a result of inundation and/or saturation by water. Soil units identified as non-hydric have no hydric soil components identified in the mapped soil unit. The soil units identified within the ESA are displayed on Figure 3 and listed in Table 1, below.

**Table 1. Soil Units Identified within the ESA**

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating
Bhs4D	Bethesda channery silt loam, 8 to 25 percent slopes, unreclaimed	Predominantly Non-Hydric
Bhs4F	Bethesda channery silt loam, 25 to 70 percent slopes, unreclaimed	Non-Hydric
UgD2	Upshur-Gilpin complex, 15 to 25 percent slopes, eroded	Non-Hydric
UgE	Upshur-Gilpin complex, 25 to 50 percent slopes	Non-Hydric

### 2.6 Aerial Imagery

A review of aerial imagery for the ESA shows that the ESA is immediately surrounded by rural residential areas and upland forested areas (ESRI 2019). Aerial photography for the ESA and its vicinity is presented as Figure 4.

## 2.6 Antecedent Precipitation

Antecedent precipitation data was analyzed. Data was obtained from Wetlands (WETS) station (Gallipolis, OH (USC00333029)).

The most recent rainfall event prior to the August 5, 2021, site visit was 0.19 inches, which occurred on August 2, 2021. Precipitation for the 14 days prior to the August 5, 2021, site visit was 0.19 inches. There was no precipitation during the August 5, 2021, field survey.

The precipitation data for the 90-day period prior to the August 5, 2021, field visit (**Appendix A**) was entered into a WETS analysis worksheet to weight the information from each preceding month to analyze hydrologic conditions. Based on this analysis, the antecedent hydrologic conditions for the August 5, 2021, site visit was within the normal range, suggesting that climatic/hydrologic conditions were typical for this time of year. This data suggests that the wetland hydrology observed during the site visit would be normal.

## 3 METHODOLOGY

Pedestrian surveys were conducted within the ESA to identify wetlands and waterbodies on August 5, 2021. Wetland boundaries were field-delineated according to Section 404 of the Clean Water Act routine onsite methodology described in the Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual* (USACE Environmental Laboratory 1987) and subsequent guidance documents and the U.S. Army Corps of Engineers (USACE) 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Version 2.0). The ESA is within the Major Land Resource Area: Central Allegheny Plateau and the Land Resource Region: East and Central Farming and Forest Region (USACE 2012).

Wetland delineation data were recorded on the USACE Regional Supplement wetland determination data forms. One data point was recorded for each wetland. Corresponding upland data points were recorded to document upland boundaries and conditions surrounding the wetlands within the ESA.

The United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE) published the Navigable Waters Protection Rule (NWPR) in the Federal Register to finalize a revised definition of “waters of the United States” under the Clean Water Act (EPA and USACE 2020). The EPA and USACE have streamlined the definition so that it includes four categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before. This final rule became effective on June 22, 2020. Under this new rule, the following four types of waters are considered jurisdictional by the USACE:

- The territorial seas and TNWs,
- Perennial and intermittent tributaries to those waters,
- Certain lakes, ponds, and impoundments, and
- Wetlands adjacent to jurisdictional waters.

It is noted that the USACE continues to maintain authority to determine what wetlands and waterbodies are jurisdictional under the NWPR. Additionally, it is noted that certain waters that the USACE does not consider jurisdictional are regulated on the state level by the Ohio Environmental Protection Agency (OEPA).

## WETLAND AND WATERBODY DELINEATION REPORT

The OEPA requires classification of streams and wetlands, if present, according to OEPA methods in order to establish the “quality” of these waterbodies in accordance with the Ohio Wetland Water Quality Standards (Ohio Administrative Code [OAC] 2012). The standards dictate the level of permitting and mitigation required for impacts to the wetlands. Each identified wetland was evaluated in accordance with the Ohio Rapid Assessment Method (ORAM), developed by the Ohio Environmental Protection Agency (OEPA) (OEPA 2001). Categorization was conducted in accordance with the latest quantitative score calibration (OEPA 2001).

The OEPA classifies larger streams (with watersheds greater than one square mile) in accordance with the OEPA Qualitative Habitat Evaluation Index (OEPA, 2006). Streams with drainage areas smaller than one square mile are evaluated using the OEPA Primary Headwater Habitat Evaluation (HHEI) (OEPA, 2012). The quality of the stream is based on the score, as well as other features such as past modifications and substrate types.

The outer boundaries of each wetland and waterbody, determined by the ordinary high water mark, were delineated and recorded using a handheld Trimble GeoXH Global positioning system receiver. As features were collected, they were given a unique feature identification (ID). If a stream was identified, the centerline of each stream was delineated and recorded.

## 4 SURVEY RESULTS

### 4.1 Vegetative Communities and Land Cover Types

Vegetative communities and land cover types observed within the ESA included old field, upland scrub/shrub, upland forest, and maintained lawn areas. A description of each vegetative community or land cover type and an estimated acreage within the ESA is included in **Table 2** below. Vegetative communities are presented in **Figure 5**. Photographs of the ESA are provided in **Appendix B**.

**Table 2. Vegetative Communities and Land Cover Types within the ESA**

Vegetative Community/Land Cover Type	Description	Approximate Acreage within ESA
Old Field	Contained fescues ( <i>Festuca</i> spp.), white clover ( <i>Trifolium repens</i> ), red clover ( <i>Trifolium pratense</i> ), English plantain ( <i>Plantago lanceolata</i> ), Queen Anne’s-lace ( <i>Daucus carota</i> ), Canada goldenrod ( <i>Solidago canadensis</i> ), common milkweed ( <i>Asclepias syriaca</i> ), rambler rose ( <i>Rosa multiflora</i> ), ironweed ( <i>Vernonia fasciculata</i> ), and timothy grass ( <i>Phleum pratense</i> ).	0.99
Upland Scrub/Shrub	Mostly within the existing right-of-way (ROW) and contained autumn olive ( <i>Elaeagnus umbellata</i> ), amur honeysuckle ( <i>Lonicera maackii</i> ), tulip poplar ( <i>Liriodendron tulipifera</i> ), rambler rose, <i>Rubus</i> sp., and sweet-scented joe-pye-weed ( <i>Eutrochium purpureum</i> ).	1.27

## WETLAND AND WATERBODY DELINEATION REPORT

Vegetative Community/Land Cover Type	Description	Approximate Acreage within ESA
Upland Forest	Adjacent to the existing ROW and contained mainly sugar maple ( <i>Acer saccharum</i> ), sassafras ( <i>Sassafras albidum</i> ), red maple ( <i>Acer rubrum</i> ), sycamore ( <i>Platanus occidentalis</i> , tulip poplar, <i>Rubus sp.</i> , Japanese stiltgrass, staghorn sumac ( <i>Rhus typhina</i> ), and rambler rose.	5.5
Maintained lawn	Located around the existing substation, private residence, and the existing permanent access road. Contained fescues ( <i>Festuca spp.</i> ), white clover, red clover, English plantain, and Queen Anne's-lace.	0.98
Paved/graveled surfaces	Located around the existing substation and where the ESA intersects the public road ROW.	0.77
<b>Total</b>		<b>9.59</b>

### 4.2 Waterbodies

As shown on **Figure 4**, **one pond** was identified in the ESA, totaling 0.08 acres.

The Pond Data Forms are provided in **Appendix C**. Waterbody characteristics are summarized in **Table 3**, below.

**Table 3. Environmental Survey Area Waterbody Summary**

Feature ID	Cowardin Classification	Approximate Area Delineated within the ESA (acres) <sup>1</sup>	12-Digit HUC
P-1	PEM	0.08	50302020902
<b>Total:</b>		<b>0.08</b>	

NOTES:

ID = Identification

HUC = Hydrologic Unit Code

### 4.3 Rare, Threatened, or Endangered Species

On September 3, 2020, Arcadis requested information on rare, threatened, and endangered (RTE) species and sensitive habitats within Project area from the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS).

On September 14, 2020, USFWS responded that Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) have the potential to occur within the Project area, and no known records of sensitive habitats were identified within the Project area. The response from USFWS is provided in **Appendix D**.

On September 16, 2020, ODNR responded that Indiana bat, northern long-eared bat, little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*) have the potential to occur within the Project area. The ODNR identified a record of the state threatened Channel darter (*Percina copelandi*) as being at or within a 1-mile radius of the project area. The ODNR also states that the Project is in the range of several other state endangered and threatened fish species. The response from ODNR and a table summarizing potential effects to state endangered, threatened, proposed, or candidate species is provided in **Appendix D**.

## 5 CONCLUSIONS

On August 5, 2021, Arcadis conducted wetland and waterbody delineations within the ESA of the proposed Cartwright Switch Project in Gallia County, Ohio. Arcadis identified one pond, totaling 0.08 acre, within the ESA. There were no wetlands or streams delineated within the ESA.

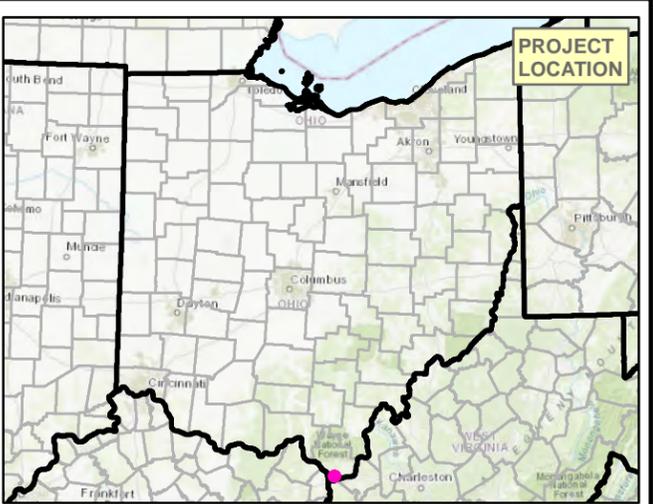
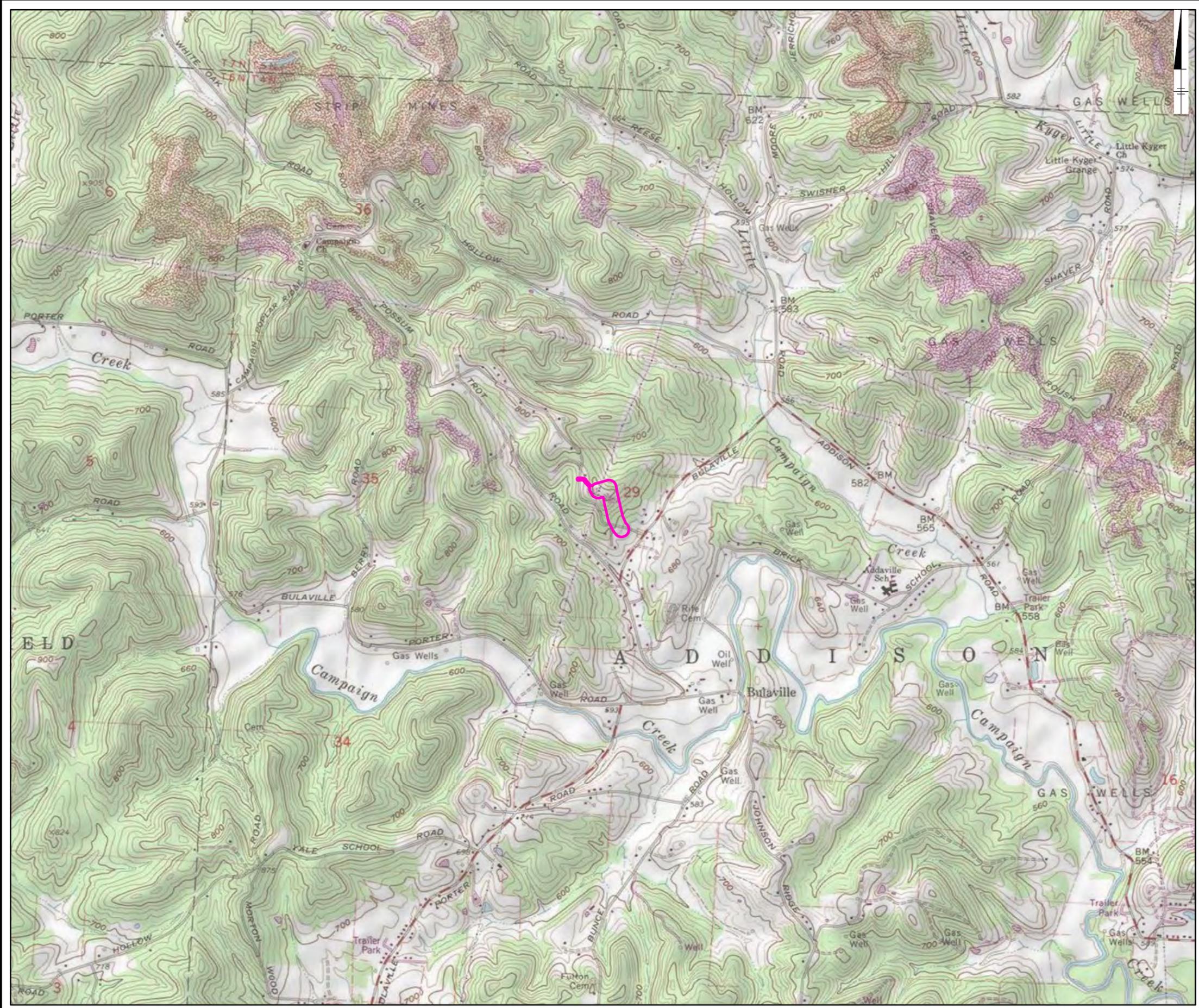
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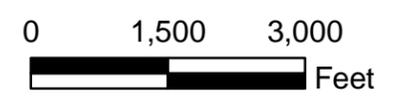
# FIGURES



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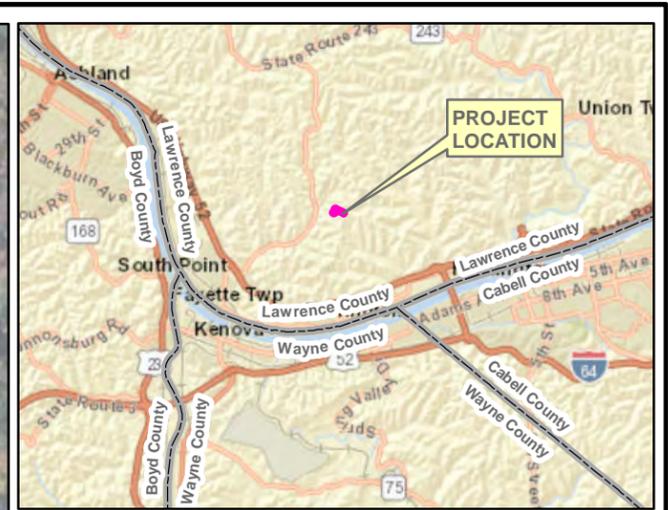
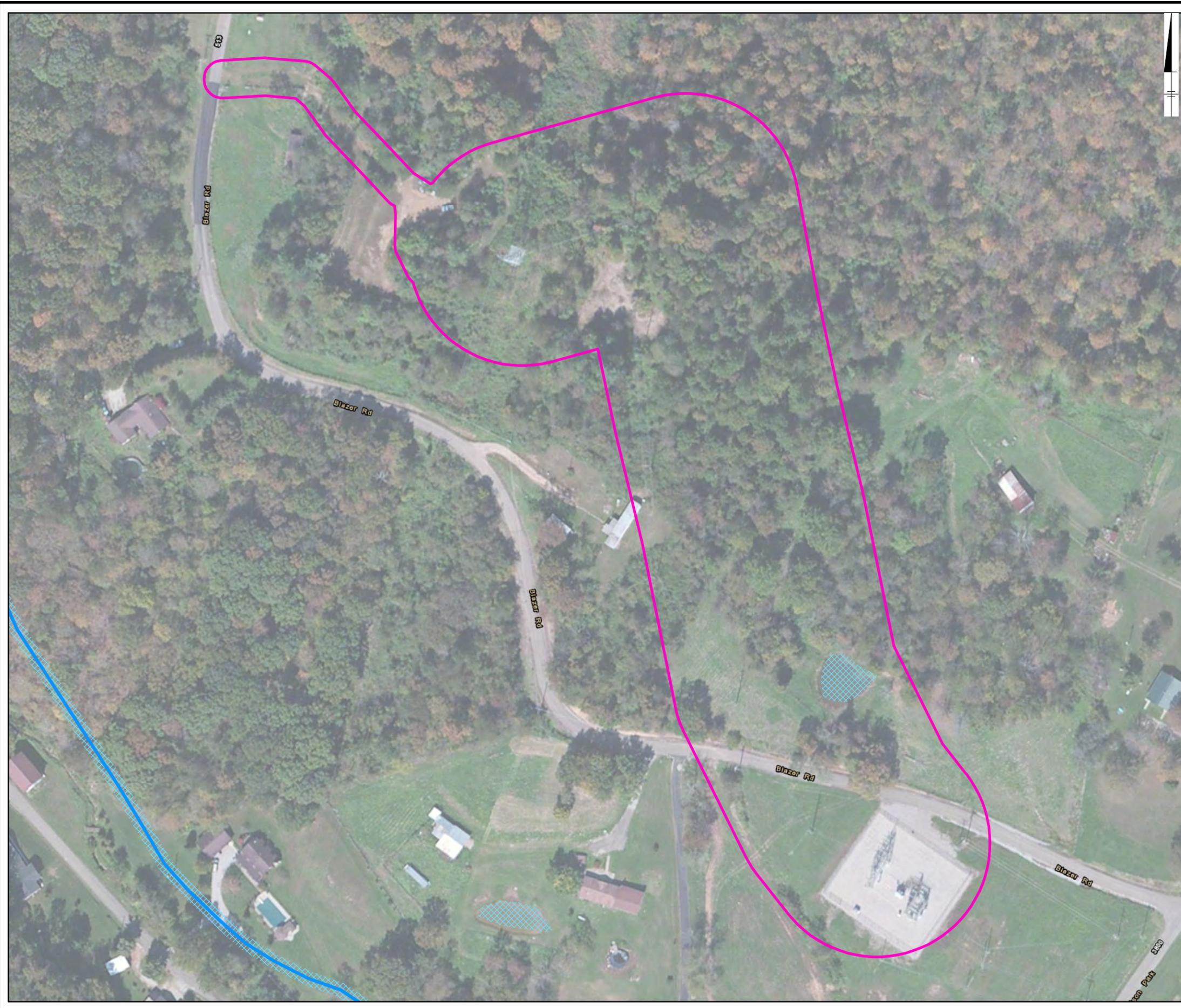
**Legend**  
Environmental Survey Area (ESA)



NOTE:  
1. USGS TOPOGRAPHIC QUADRANGLE ADDISON, OHIO  
OBTAINED FROM ESRI IMAGE SERVICE. PHOTO REVISED 1983.

AMERICAN ELECTRIC POWER (AEP)  
CARTWRIGHT SWITCH  
GALLIA COUNTY, OHIO

**TOPOGRAPHIC MAP**



- Legend**
-  NHD Stream
  -  Freshwater Pond/Lake/Riverine Wetland
  -  Environmental Survey Area (ESA)

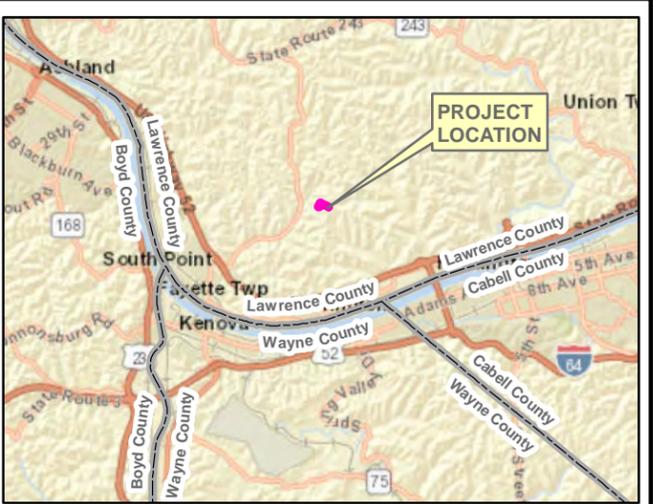


- NOTE:**
1. 2019 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
  2. NATIONAL WETLANDS INVENTORY (NWI) WETLAND DATA OBTAINED FROM THE US FISH & WILDLIFE SERVICE AT: [www.fws.gov](http://www.fws.gov).
  3. NATIONAL HYDROGRAPHY DATASET (NHD) OBTAINED FROM THE US GEOLOGICAL SURVEY AT: <https://nhd.usgs.gov>.
  4. NO FLOOD HAZARDS WITHIN VICINITY OF SITE  
FEMA FLOOD ZONE DATA OBTAINED FROM: <https://msc.fema.gov>

AMERICAN ELECTRIC POWER (AEP)  
CARTWRIGHT SWITCH  
GALLIA COUNTY, OHIO

**NWI / NHD / FEMA MAP**

City: SYR Div/Group: IM/DV Created By: J.Rapp Last Saved By: MVazquez  
 T:\\_EPP\AEP\Cartwright\_Switch\MXD\WDR\Figure3\_Cartwright\_NFRCS\_Soils.mxd 8/16/2021 8:26:44 AM



**Legend**

- Soil Class Boundary
- Environmental Survey Area (ESA)

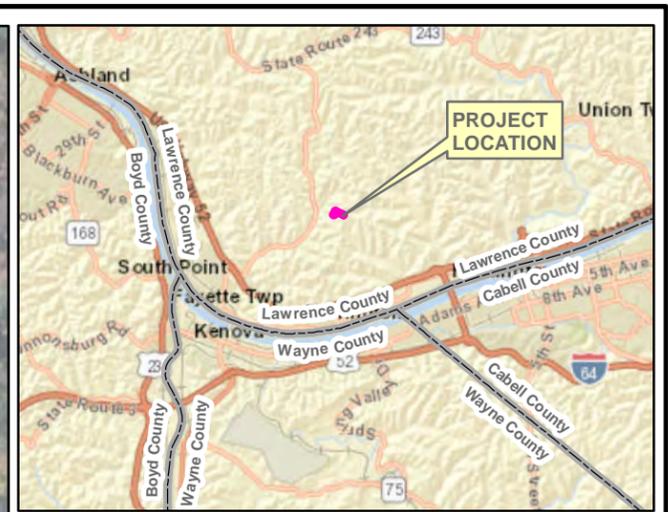
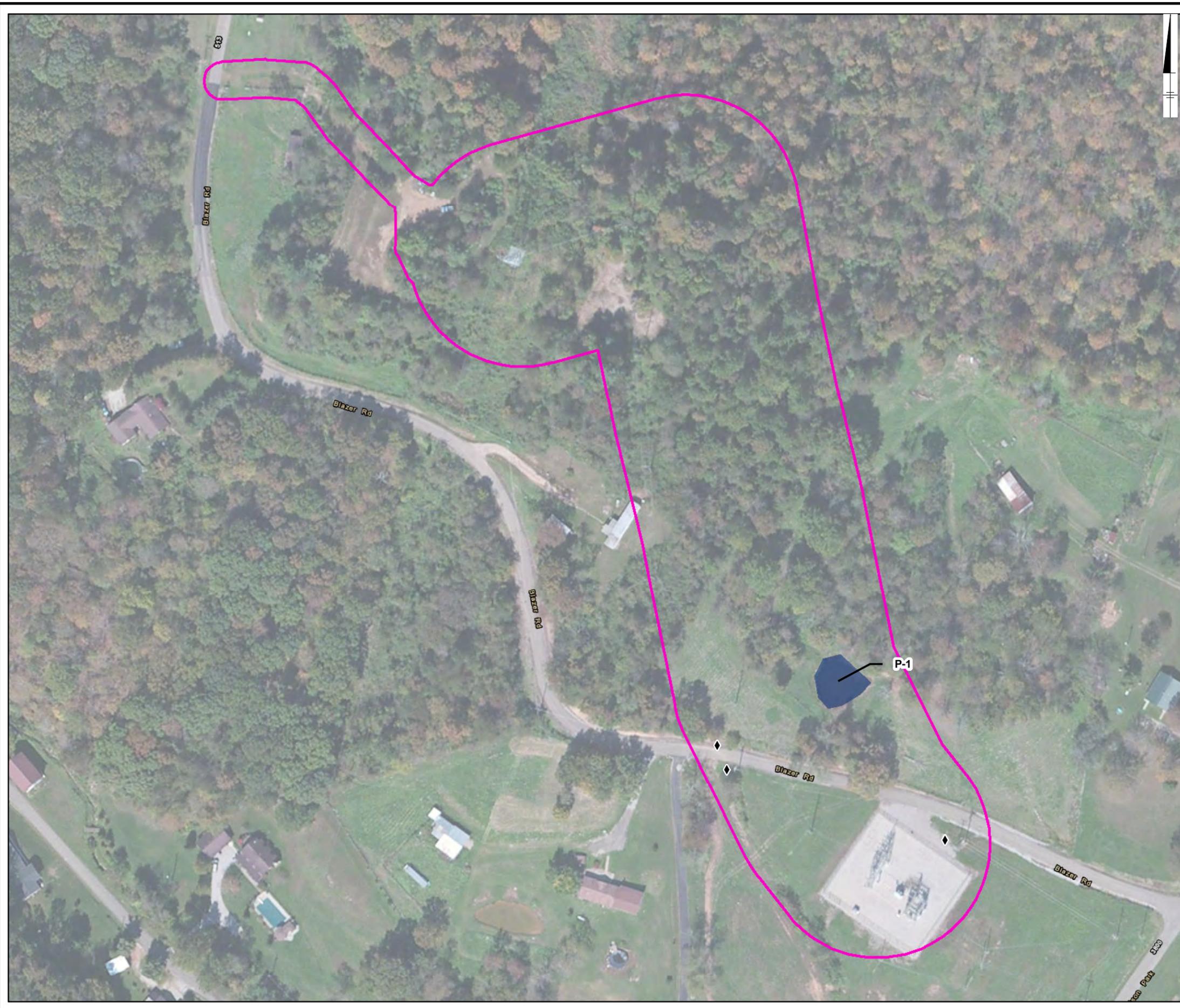
Soil ID	Soil Description	Hydric Rating
Bhs4D	Bethesda channery silt loam, 8 to 25 percent slopes, unreclaimed	Predominantly Non-Hydric (1-32%)
Bhs4F	Bethesda channery silt loam, 25 to 70 percent slopes, unreclaimed	Non-Hydric (0%)
UgD2	Upshur-Gilpin complex, 15 to 25 percent slopes, eroded	Non-Hydric (0%)
UgE	Upshur-Gilpin complex, 25 to 50 percent slopes	Non-Hydric (0%)



NOTE:  
 1. 2017 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.  
 2. 2018 NATURAL RESOURCES CONSERVATION SERVICE SOIL DATA OBTAINED FROM: <https://gdg.sc.egov.usda.gov>

AMERICAN ELECTRIC POWER (AEP)  
 CARTWRIGHT SWITCH  
 GALLIA COUNTY, OHIO

**NRCS SOILS MAP**

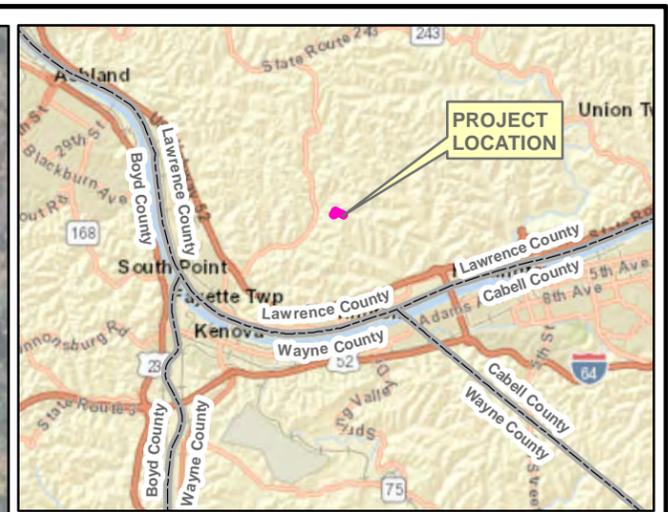
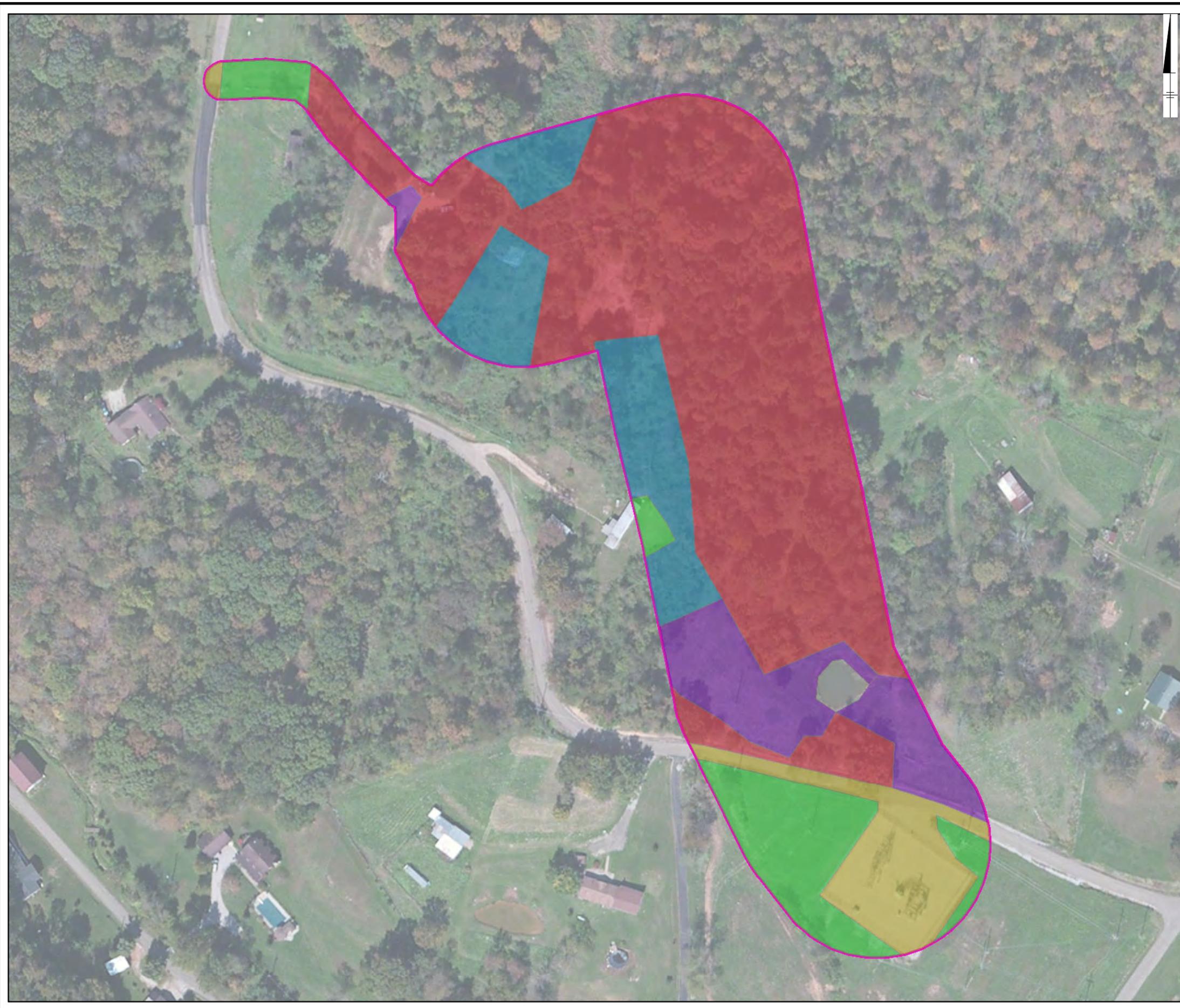


- Legend**
- ◆ Culvert
  - Delineated Pond
  - Environmental Survey Area (ESA)



NOTE:  
1. 2019 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.

AMERICAN ELECTRIC POWER (AEP) CARTWRIGHT SWITCH GALLIA COUNTY, OHIO	
<b>DELINEATED WETLANDS AND STREAMS MAP</b>	
 AEP OHIO	 ARCADIS
FIGURE <b>4</b>	



- Legend**
- Vegetation Communities**
- Forested
  - Maintained lawn
  - Old field
  - Paved/gravelled
  - Upland scrub-shrub
  - Environmental Survey Area (ESA)



NOTE:  
1. 2019 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.

AMERICAN ELECTRIC POWER (AEP) CARTWRIGHT SWITCH GALLIA COUNTY, OHIO	
<b>VEGETATION COMMUNITIES</b>	
AEP OHIO	ARCADIS
<b>FIGURE</b> <b>5</b>	

# APPENDIX A

## Antecedent Precipitation



**Antecedent Precipitation Data**

3rd Month Prior		2nd Month Prior		1st Month Prior	
Date	Precipitation (in.)	Date	Precipitation (in.)	Date	Precipitation (in.)
5/1/2021	0.00	6/1/2021	0.00	7/1/2021	1.23
5/2/2021	0.00	6/2/2021	0.00	7/2/2021	0.59
5/3/2021	0.12	6/3/2021	0.26	7/3/2021	0.00
5/4/2021	0.12	6/4/2021	0.10	7/4/2021	0.00
5/5/2021	0.48	6/5/2021	0.00	7/5/2021	0.00
5/6/2021	0.08	6/6/2021	0.00	7/6/2021	0.00
5/7/2021	0.02	6/7/2021	0.00	7/7/2021	0.00
5/8/2021	M	6/8/2021	0.00	7/8/2021	0.08
5/9/2021	0.00	6/9/2021	1.10	7/9/2021	0.06
5/10/2021	0.19	6/10/2021	1.85	7/10/2021	0.00
5/11/2021	0.00	6/11/2021	0.18	7/11/2021	0.04
5/12/2021	0.00	6/12/2021	0.50	7/12/2021	1.05
5/13/2021	0.00	6/13/2021	0.00	7/13/2021	0.05
5/14/2021	0.00	6/14/2021	0.43	7/14/2021	0.38
5/15/2021	0.00	6/15/2021	0.00	7/15/2021	0.00
5/16/2021	0.00	6/16/2021	0.00	7/16/2021	0.00
5/17/2021	0.00	6/17/2021	0.00	7/17/2021	0.75
5/18/2021	0.13	6/18/2021	0.00	7/18/2021	0.15
5/19/2021	0.00	6/19/2021	0.08	7/19/2021	0.00
5/20/2021	0.00	6/20/2021	0.20	7/20/2021	0.00
5/21/2021	0.00	6/21/2021	0.00	7/21/2021	0.00
5/22/2021	0.00	6/22/2021	0.42	7/22/2021	0.00
5/23/2021	0.00	6/23/2021	0.00	7/23/2021	0.00
5/24/2021	0.00	6/24/2021	0.00	7/24/2021	0.00
5/25/2021	0.00	6/25/2021	0.00	7/25/2021	0.00
5/26/2021	0.00	6/26/2021	0.00	7/26/2021	0.00
5/27/2021	0.04	6/27/2021	0.00	7/27/2021	0.00
5/28/2021	0.00	6/28/2021	0.00	7/28/2021	0.00
5/29/2021	0.68	6/29/2021	0.00	7/29/2021	0.00
5/30/2021	0.04	6/30/2021	0.00	7/30/2021	0.00
5/31/2021	0.00			7/31/2021	0.00
<b>Total =</b>	<b>1.90</b>	<b>Total =</b>	<b>5.12</b>	<b>Total =</b>	<b>4.38</b>

**Notes:**

Station Name: Gallipolis, OH (USC00333029)  
 Date Range = May 1, 2021 - July 31, 2021  
 M = Missing  
 T = Trace

**WETS Analysis**

Month	Long-Term Rainfall Records (from WETS Table, 1990-2020)				Site Determination			
	Normal	3 Years in 10 Less Than	3 Years in 10 Greater Than	Site Rainfall (in.)	Condition (Dry, Normal*, or Wet)	Condition Value**	Month Weight	Product
May	4.53	2.89	5.46	4.08	Normal	2	1	2
June	4.34	3.15	5.11	4.15	Normal	2	2	4
July	4.25	3.22	4.95	4.29	Normal	2	3	6
<b>Sum =</b>	<b>13.12</b>		<b>Sum =</b>	<b>12.52</b>			<b>Sum*** =</b>	<b>12</b>

<b>Determination:</b>	Dry	_____
	Normal	_____X_____
	Wet	_____

**Notes:**

\*Normal precipitation with 30% to 70% probability of occurrence.

\*\*Condition value: Dry = 1, Normal = 2, Wet = 3.

\*\*\*If sum is: 6 to 9 = Dry, 10 to 14 = Normal, 15 to 18 = Wet.

Reference: Donald E. Woodward, ed. 1997. Hydrology Tools for Wetland Determination, Chapter 19. Engineering Field Handbook. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, TX.

# APPENDIX B

Photographic Log



<b>Photo No.</b> 01	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  North	
<b>Description:</b>  View of Addison Substation.	



<b>Photo No.</b> 02	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  East	
<b>Description:</b>  View of Addison Substation.	



<b>Photo No.</b> 03	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  South	
<b>Description:</b>  View of Addison Substation.	



<b>Photo No.</b> 04	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  West	
<b>Description:</b>  View of Addison Substation.	



# PHOTOGRAPHIC LOG

<b>Photo No.</b> 05	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  Northwest	
<b>Description:</b>  View of access road entrance.	



A photograph showing an access road entrance. On the left, there is a metal gate. A paved road leads into a wooded area. A black pickup truck is partially visible on the right side of the road. The foreground is a grassy area with some dry patches.

<b>Photo No.</b> 06	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  Northeast	
<b>Description:</b>  View of access road.	



A photograph showing a view of an access road. The road is paved and curves through a wooded area. The foreground is a grassy area. There are trees and a fence visible in the background.

# PHOTOGRAPHIC LOG

<b>Photo No.</b> 07	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  Northwest		
<b>Description:</b>  View of access road.		

<b>Photo No.</b> 08	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  Southeast		
<b>Description:</b>  View of ESA.		

# PHOTOGRAPHIC LOG

<b>Photo No.</b> 09	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  Southwest	
<b>Description:</b>  View of ESA.	



<b>Photo No.</b> 10	<b>Date:</b> 8/5/2021
<b>Direction Photo Taken:</b>  East	
<b>Description:</b>  View of ESA.	



# PHOTOGRAPHIC LOG

<b>Photo No.</b> 11	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  North		
<b>Description:</b>  View of ESA.		

<b>Photo No.</b> 12	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  Northeast		
<b>Description:</b>  View of ESA.		

# PHOTOGRAPHIC LOG

<b>Photo No.</b> 13	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  South		
<b>Description:</b>  View of ESA.		

<b>Photo No.</b> 14	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  Northeast		
<b>Description:</b>  View of ESA.		

# PHOTOGRAPHIC LOG

<b>Photo No.</b> 15	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  South		
<b>Description:</b>  View of ESA.		

<b>Photo No.</b> 16	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  Northwest		
<b>Description:</b>  View of ESA.		

# PHOTOGRAPHIC LOG

<b>Photo No.</b> 17	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b> South		
<b>Description:</b> View of ESA.		

<b>Photo No.</b> 18	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b> Northwest		
<b>Description:</b> View of ESA.		

# PHOTOGRAPHIC LOG

<b>Photo No.</b> 19	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  North		
<b>Description:</b>  View of pond P-1.		

<b>Photo No.</b> 20	<b>Date:</b> 8/5/2021	
<b>Direction Photo Taken:</b>  West		
<b>Description:</b>  View of pond P-1.		

# APPENDIX C

## Pond Data Forms



## POND DATA SHEET

<b>FEATURE ID: P-1</b>	<b>ASSOCIATED FEATURES: None</b>
<b>SURVEY TYPE:</b> Wetland and Waterbody delineation	
<b>DATE:</b> 8/6/2021	<b>CLIENT/PROJECT NAME:</b> AEP CARTWRIGHT SWITCH PROJECT
<b>INVESTIGATORS:</b> J. Freer, S. Medziuch	<b>ROUTE:</b> N/A
<b>STATE/COUNTY:</b> Gallia Co., Ohio	<b>IS THIS A MAPPED NWI FEATURE?:</b> Yes

### WATERBODY CHARACTERISTICS

<b>WATERBODY TYPE:</b>	Pond
<b>AVG. DEPTH:</b>	Unknown, shallow
<b>AVG. WIDTH (WATER SURFACE):</b>	75'
<b>APPROXIMATE SIZE:</b>	70' x 75'

### QUALITATIVE ATTRIBUTES

<b>AVERAGE WATER APPEARANCE:</b>	Green, murky with algal mats
<b>PRIMARY SUBSTRATE (IF OBSERVED):</b>	silt
<b>POTENTIAL HABITAT FOR:</b>	Fish observed- sunfish, bass, carp
<b>SURROUNDING LAND USE:</b>	Existing ROW, forested
<b>WETLAND FRINGE (IF PRESENT):</b>	Few cattails within pond OHWM, no wetland fringe extending beyond pond OHWM

### COMMENTS

<p>Appears man-made. No visible inlets or outlets.</p>

# APPENDIX D

USFWS and ODNR Rare, Threatened, and Endangered Species Information



## Miloski, Sarah

---

**From:** Ohio, FW3 <ohio@fws.gov>  
**Sent:** Monday, September 14, 2020 3:38 PM  
**To:** Miloski, Sarah  
**Cc:** nathan.reardon@dnr.state.oh.us; Parsons, Kate; Bosiljevac, Maggie  
**Subject:** AEP's Cartwright Switch Project, Northwest of Addison in Galia County



UNITED STATES DEPARTMENT OF THE  
U.S. Fish and Wildlife Service  
Ecological Services Office  
4625 Morse Road, Suite 104  
Columbus, Ohio 43230

TAILS# 03E15000-2020-TA-2441

Dear Ms. Miloski,

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  $\geq 3$  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  $\geq 3$  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  $\geq 3$  inches dbh cannot be avoided, we recommend removal of any trees  $\geq 3$  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 <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), 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](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](mailto: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](mailto:ohio@fws.gov).

Sincerely,



Patrice M. Ashfield  
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW  
Kate Parsons, ODNR-DOW

## Miloski, Sarah

---

**From:** Driscoll, Mark  
**Sent:** Friday, November 13, 2020 8:45 AM  
**To:** Miloski, Sarah  
**Subject:** FW: 20-886; Arcadis - AEP Cartwright Switch Project Comments  
**Attachments:** 20-886; Arcadis - AEP Cartwright Switch Project Comments.pdf; 2020 State bat survey guidance\_6\_3\_20.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Sarah are you in the office today?

---

**From:** sarah.tebbe@dnr.ohio.gov <sarah.tebbe@dnr.ohio.gov>  
**Sent:** Tuesday, November 10, 2020 8:59 AM  
**To:** Driscoll, Mark <Mark.Driscoll@arcadis.com>  
**Subject:** 20-886; Arcadis - AEP Cartwright Switch Project Comments

Hi Mark,

Attached are the ODNR comments on the subject project.

Thanks,

Sarah Tebbe  
Ohio Department of Natural Resources  
REALM Office of Environmental Services  
2045 Morse Road  
Columbus, Ohio 43229





# 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*

November 9, 2020

Mark Driscoll  
Arcadis U.S., Inc.  
4665 Cornell Road, Suite 200  
Cincinnati, Ohio 45241

**Re:** 20-886; AEP Cartwright Switch Project

**Project:** The proposed project involves removing an existing hard tap to a customer, installing a new three-way switch near the existing Addison Station, and rebuilding approximately 1,200 feet of the existing transmission line.

**Location:** The proposed project is located in Addison Township, Gallia County, Ohio.

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

**Natural Heritage Database:** The Natural Heritage Database has the following record at or within a one-mile radius of the project area:

Channel darter (*Percina copelandi*), State threatened

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity.

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. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally 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 species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH  $\geq 20$  if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the “OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING”. If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31, however, limited summer tree cutting may be acceptable after consultation with DOW (contact Sarah Stankavich, [sarah.stankavich@dnr.state.oh.us](mailto:sarah.stankavich@dnr.state.oh.us)).

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS “Range-wide Indiana Bat Survey Guidelines.” If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, [sarah.stankavich@dnr.state.oh.us](mailto:sarah.stankavich@dnr.state.oh.us) 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 DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

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

#### Federally Endangered

snuffbox (*Epioblasma triquetra*)  
sheepnose (*Plethobasus cyphus*)  
fanshell (*Cyprogenia stegaria*)  
pink mucket (*Lampsilis orbiculata*)

#### State Endangered

long-solid (*Fusconaia maculata maculata*)  
little spectaclecase (*Villosa lienosa*)  
elephant-ear (*Elliptio crassidens*)  
yellow sandshell (*Lampsilis teres*)  
pocketbook (*Lampsilis ovata*)  
Ohio pigtoe (*Pleurobema cordatum*)  
washboard (*Megaloniais nervosa*)  
butterfly (*Ellipsaria lineolata*)  
monkeyface (*Quadrula metanevra*)

#### State Threatened

threehorn wartyback (*Obliquaria reflexa*)  
black sandshell (*Ligumia recta*)

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

goldeye (*Hiodon alosoides*)  
shoal chub (*Macrhybopsis hyostoma*)  
gilt darter (*Percina evides*)  
Ohio lamprey (*Ichthyomyzon bdellium*)  
shovelnose sturgeon (*Scaphirhynchus platyrhynchus*)

State Threatened

American eel (*Anguilla rostrata*)  
channel darter (*Percina copelandi*)  
lake chubsucker (*Erimyzon sucetta*)  
blue sucker (*Cycleptus elongatus*)  
paddlefish (*Polyodon spathula*)  
river darter (*Percina shumardi*)

The DOW recommends no in-water work in perennial streams from April 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 timber rattlesnake (*Crotalus horridus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species, utilizing dry slopes and rocky outcrops. In addition to using wooded areas, the timber rattlesnake utilizes sunlit gaps in the canopy for basking and deep rock crevices for overwintering. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the 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 May 15 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. 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. Your local floodplain administrator contact information can be found at the website below.

[http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List\\_8\\_16.pdf](http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf)

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or [Sarah.Tebbe@dnr.state.oh.us](mailto:Sarah.Tebbe@dnr.state.oh.us) if you have questions about these comments or need additional information.

Mike Pettegrew  
Environmental Services Administrator (Acting)



## OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING JUNE 2020

### Agency Contacts:

**ODNR-DOW Permit Coordinator:** Wildlife.Permits@dnr.state.oh.us, (614) 265-6315

**ODNR-DOW Bat Survey Coordinator:** Sarah Stankavich, sarah.stankavich@dnr.state.oh.us, (614) 265-6764

Due to the evolving situation with COVID-19, we are temporarily suspending bat-handling activities until more is known about the risk to North American bats. This document has been updated with new state guidance for the 2020 field season only, or until bat-handling activities are reinstated. These guidelines replace previous guidelines released in March 2020.

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

### Ohio Mist Net Surveys:

Mist-netting for presence/absence surveys, education events, or research activities will not be authorized for the 2020 season.

### Ohio Acoustic Surveys:

Acoustic bat surveys for presence/absence will be accepted by ODNR for the 2020 season. Surveys should follow guidelines laid out in the USFWS Range-wide Indiana Bat Survey Guidelines (March 2020) with the following exceptions:

- Ohio survey dates are June 1 – August 15, 2020
- After conducting automated analyses using one or more of the currently available ‘approved’ acoustic bat ID programs<sup>1</sup>, qualitative analysis (i.e., manual vetting) of any calls recorded from state-endangered species (*Myotis sodalis*, *M. septentrionalis*<sup>2</sup>, *M. lucifugus*<sup>2</sup>, and *Perimyotis subflavus*<sup>2</sup>) must be completed.
  - At a minimum, for each detector site/night a program considered presence of state-listed bats likely, review all files (including no IDs) from that site/night. If more than one acoustic bat ID program is used, qualitative analysis must also include a comparison of the results of each program by site and night.

### During Field Season:

- **Prior to initiation of field work (a minimum of two weeks in advance)**, permittees must provide proposed survey plans to ODNR-DOW via e-mail. **Plans must be reviewed and approved by ODNR-DOW before ANY surveys take place.** Study plans must specify objectives, location details, dates of proposed work, and all other relevant details.

<sup>1</sup> <https://www.fws.gov/midwest/Endangered/mammals/inba/surveys/inbaAcousticSoftware.html>

<sup>2</sup> State listing as endangered effective July 1, 2020

**After Field Season:**

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

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

**Step 1:** Coordinate with Ohio Division of Wildlife (DOW) regarding existing records for state-listed endangered bat summer and/or winter occurrence information.

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

- For state-listed endangered species other than the Indiana bat, a recommendation of 0.25-mile tree cutting buffer around all known entrances to protect existing conditions at the hibernaculum(a). If the project involves subsurface disturbance, consultation with DOW is required.
- Limited summer and winter tree cutting may be permitted within the buffer following guidelines detailed below. Coordinate with DOW before cutting.

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

- Conduct a habitat assessment (desktop or field-based, using methods detailed in current USFWS Range-wide Indiana Bat Guidelines) to determine if a potential hibernaculum(a) is present within the action area.

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

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

- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 5 miles of the capture site if a roost is not located.
- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 2.5 miles of a roost tree if located.

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

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

**Limited summer tree cutting guidance for bats that are only state-listed endangered:** Limited tree cutting in summer may be permitted after consultation with DOW, but clearing trees with the following characteristics should be avoided unless they pose a hazard: dead or live trees of any size with loose, shaggy bark; crevices, holes, or cavities; live trees of any species with DBH  $\geq$  20.

## **FREQUENTLY ASKED QUESTIONS**

### **When does the Bat Survey protocol have to be used?**

This protocol should be used anytime Indiana bat, northern long-eared bat, little brown bat, or tricolored bat summer presence/probable absence surveys are conducted in the state of Ohio. For 2020 only, acoustic surveys will meet the ODNR-DOW requirements unless new guidance allowing for the handling of bats during presence/absence surveys is released from USFWS.

### **How many net surveys are required for presence/probably absence?**

As described in the current USFWS Range-wide Indiana Bat Guidelines: Linear projects: a minimum of 2 detector nights per km (0.6 miles) of suitable summer habitat

Non-linear projects: a minimum of 8 detector nights per 123 acres (0.5 km<sup>2</sup>) of suitable summer habitat. At least 2 detector locations per 123 acre "site" shall be sampled until at least 8 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:

- 4 detectors for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 4 nights each (can sample the same location or move within the site)
- 1 detector for 8 nights (must sample at least 2 locations and move within the site)

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

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

### **When can acoustic surveys occur in Ohio?**

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

### **Can a presence/probable absence survey be conducted within a known Indiana bat and/or northern long-eared bat capture/detection buffer?**

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

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

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

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

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

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
<b>Amphibians</b>							
Midland Mud Salamander ( <i>Pseudotriton montanus diastictus</i> )	Threatened		No	Found in springs, seeps, and creeks. Much of the life of this animal is probably spent underground in burrows, making sightings of this species rare.	No	No springs, seeps, or creeks are within the Project area. Therefore, the Project is not likely to affect the midland mud salamander.	Due to the location, the type of habitat within the project area, and the type of work proposed, ODNR anticipates that this project is not likely to impact this species.
<b>Birds</b>							
Northern Harrier ( <i>Circus hudsonius</i> )	Endangered		No	Marshes, fields, prairies. Found in many kinds of open terrain, both wet and dry habitats, where there is good ground cover. Often found in marshes, especially in nesting season, but sometimes will nest in dry open fields.	No	Northern harriers require large areas (between 8 and 16 hectares) for nesting, and wetlands greater than 1 hectare for foraging. The Project ESA is approximately 9.6 acres (approximately 3.9 hectares), and is therefore not likely to affect the northern harrier.	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 May 15 to August 1.
<b>Fish</b>							
Lake chubsucker ( <i>Erimyzon sucetta</i> )	Threatened		No	Found in natural lakes and slow-water sections of large streams. These waters are usually clear, vegetated and have sandy or fine graveled bottoms.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Goldeye ( <i>Hiodon alosoides</i> )	Endangered		No	Prefers the quiet, turbid waters of large rivers and their connecting lakes, ponds, and marshes. Spawning occurs from May through early-July.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Ohio lamprey ( <i>Ichthyomyzon bdellium</i> )	Endangered		No	Occurs in medium-sized and larger streams with clean sand.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Shoal chub ( <i>Macrhybopsis hyostoma</i> )	Endangered		No	Prefers fast, moderate depth water over broad sand flats.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Shovelnose Sturgeon ( <i>Scaphirhynchus platyrhynchus</i> )	Endangered		No	Shovelnose sturgeon can tolerate high turbidities and are usually found in the strong currents and deep channels of large rivers over sand and gravel substrates. They are apparently intolerant of the quiet waters of lakes and reservoirs, and dams restrict their movements. Shovelnose sturgeon frequent waters that are 6.5-23 ft deep and are relatively sedentary most of the time, but occasionally move long distances (as much as 7.5 mi in one day) exhibiting some homing behavior. During high water stages in the spring they frequent areas downstream of wing dams or other obstructions and remain near shore, while during summer low water levels they remain near mid-channel.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
American Eel ( <i>Anguilla rostrata</i> )	Threatened		No	Found in large streams and rivers. They can sometimes be found in ponds or lakes that are not connected to a river, although this seldom happens.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Blue Sucker ( <i>Cycleptus elongatus</i> )	Threatened		No	Prefers large, deep rivers with moderate to strong currents over substrates of gravel or cobble.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Channel Darter ( <i>Percina coplandi</i> )	Threatened		Yes	Inhabits rivers and large creeks in areas of moderate current over sand and gravel substrates.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Gilt darter ( <i>Percina evides</i> )	Endangered		No	Found in large streams in Ohio, Pennsylvania, West Virginia, Kentucky, Tennessee, Virginia, North Carolina, Georgia, Missouri, and Arkansas. It prefers clear, fast-flowing gravel or rubble riffles where algae and other aquatic vegetation beds occur.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
River Darter ( <i>Percina shumardi</i> )	Threatened		No	River Darters inhabit deep riffles and chutes of medium to large rivers, in areas of moderate current and coarse gravel to rock substrates. It is more frequently found in smaller streams during winter and spawning season in early spring. River Darters can also be found in lakes along wave-swept shores with sand, gravel, or rubble.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
Paddlefish ( <i>Polyodon spathula</i> )	Threatened		No	Paddlefish live in water deeper than 4.3 feet in large, slow-flowing rivers and their tributaries.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	Because there is no in-water work proposed in a perennial stream, ODNR anticipates that this project is not likely to impact this species.
<b>Mammals</b>							
Indiana Bat ( <i>Myotis sodalis</i> )	Endangered	Endangered	No	Summer habitat is in cavities or in crevices of both live trees and snags. Caves and mines are used as winter hibernacula.	Yes	Live trees with loose bark and snags were observed within the Project area. No caves or mines were observed within the Project area.	USFWS recommends avoiding tree clearing where possible, and if it cannot be avoided, to remove trees between October 1 and March 31. ODNR recommends that no tree clearing or trimming should occur between April 1 and September 30. If summer tree cutting must occur, species surveys will be required.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	Endangered	Threatened	No	Summer habitat is in cavities or in crevices of both live trees and snags. Caves and mines are used as winter hibernacula.	Yes	Live trees with loose bark and snags were observed within the Project area. No caves or mines were observed within the Project area.	USFWS recommends avoiding tree clearing where possible, and if it cannot be avoided, to remove trees between October 1 and March 31. ODNR recommends that no tree clearing or trimming should occur between April 1 and September 30. If summer tree cutting must occur, species surveys will be required.
Little Brown Bat ( <i>Myotis lucifugus</i> )	Endangered		No	Summer habitat is in cavities or in crevices of both live trees and snags. Caves and mines are used as winter hibernacula.	Yes	Live trees with loose bark and snags were observed within the Project area. No caves or mines were observed within the Project area.	ODNR recommends that no tree clearing or trimming should occur between April 1 and September 30. If summer tree cutting must occur, species surveys will be required.
Tricolored Bat ( <i>Perimyotis subflavus</i> )	Endangered		No	Summer habitat is in cavities or in crevices of both live trees and snags. Caves and mines are used as winter hibernacula.	Yes	Live trees with loose bark and snags were observed within the Project area. No caves or mines were observed within the Project area.	ODNR recommends that no tree clearing or trimming should occur between April 1 and September 30. If summer tree cutting must occur, species surveys will be required.

### Invertebrates

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Fanshell ( <i>Cyprogenia stegaria</i> )	Endangered	Endangered	No	This mussel is found in medium to large rivers. It buries itself in sand or gravel in deep water of moderate current, with only the edge of its shell and its feeding siphons exposed.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Butterfly ( <i>Ellipsaria lineolata</i> )	Endangered		No	The butterfly mussel usually inhabits areas of large rivers with swift currents in sand or gravel substrates. However, it appears that the butterfly has adapted to life in reservoirs in some southern states, where it is found in water depths up to 6 m (20 ft).	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Elephant-ear ( <i>Elliptio crassidens</i> )	Endangered		No	Primarily inhabits large rivers in mud, sand or fine gravel	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Snuffbox ( <i>Epioblasma triquetra</i> )	Endangered	Endangered	No	The snuffbox is usually found in small-to medium-sized creeks, inhabiting areas with a swift current, although it is also found in Lake Erie and some larger rivers. Adults often burrow deep in sand, gravel or cobble substrates, except when they are spawning or the females are attempting to attract host fish.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Longsolid ( <i>Fusconaia subrotunda</i> )	Endangered		No	The Longsolid exhibits a preference for sand and gravel in streams and small rivers, but also may be found in coarse gravel and cobble in large rivers. In streams and rivers they can be found at depths less than 2 ft (31 cm), but in large rivers can be commonly found at depths of 12 to 18 ft (3.7 to 5.5 m); but also at depths of over 20 feet.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Pink Mucket ( <i>Lampsilis orbiculata</i> )	Endangered	Endangered	No	Found in mud and sand and in shallow riffles and shoals swept free of silt in major rivers and tributaries. This mussel buries itself in sand or gravel, with only the edge of its shell and its feeding siphons exposed.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Pocketbook ( <i>Lampsilis ovata</i> )	Endangered		No	This species is very generalized in habitat preference, adapting well to both impoundment situations as well as free-flowing, shallow rivers. It may be found in big rivers (reservoirs) at depths of 15 to 20 feet and in small streams in less than two feet of water. Although usually found in moderate to strong current, it can survive in standing water. The most suitable substrate consists of a mixture of gravel and coarse sand mixed with some silt or mud.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Yellow Sandshell ( <i>Lampsilis teres</i> )	Endangered		No	The yellow sandshell inhabits large sized rivers. As its name implies, it is at home in fine sediments, but it may also occur in coarse substrates, and in slow or moving current.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Washboard ( <i>Megalonaias nervosa</i> )	Endangered		No	The washboard is typically a large river species, inhabiting the main channel areas of a stream. Suitable habitat consists of slow current areas with substrates composed of sand, gravel, or mud.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Ohio pigtoe ( <i>Pleurobema cordatum</i> )	Endangered		No	This species primarily inhabits large rivers but may be found in medium-sized rivers. It is also tolerant of some reservoir environments. In lotic situations it is found in or immediately above riffles in heterogenous assemblages of gravel, cobble, and boulder. It also occurs in some habitats with greater depth and substrates of mud/sand/gravel but seems to require flowing water. In reservoirs, it tends to occur in the sublotic areas of dam tailwaters and may be in some overbank beds.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Sheepnose ( <i>Plethobasus cyphus</i> )	Endangered	Endangered	No	Lives in larger rivers and streams where it is usually found in shallow areas with moderate to swift currents flowing over coarse sand and gravel.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Monkeyface ( <i>Quadrula metanevra</i> )	Endangered		No	Prefer habitats dominated by stable substrates in water over 2 m (6.6 ft) deep.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Little Spectaclecase ( <i>Villosa lienosa</i> )	Endangered		No	Typically inhabits small creeks to medium-sized rivers, usually along the banks in slower currents in mud or sand substrates.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Black Sandshell ( <i>Ligumia recta</i> )	Threatened		No	The black sandshell most commonly occupies rivers with strong currents and lakes with a firm substrate of gravel or sand.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.
Threehorn Wartyback ( <i>Obliquaria reflexa</i> )	Threatened		No	Most common in medium to large rivers, the three-horned wartyback occurs in slackwater conditions to swift currents, and substrates of gravel to muddy sand.	No	There are no perennial streams or rivers within the Project area. Pond P-1 does not have a surface water connection to any perennial waterbodies within or near the ESA.	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 this species.

### Reptiles

## Threatened and Endangered Species Assessment

Species Name	State Listing Status	Federal Listing Status	Occurrence within 1 mile of Project	Habitat Description <sup>1</sup>	Potential Habitat in Project	Impact Assessment	Agency Comments
Timber rattlesnake ( <i>Crotalus horridus</i> )	Threatened		No	Timber rattlesnakes are generally found in deciduous forests in rugged terrain. In the summer, gravid (pregnant) females seem to prefer open, rocky ledges where temperatures are higher, while the males and non-gravid females seem to prefer cooler, thicker woods where the forest canopy is more closed. Rattlers generally migrate from 1.3 to 2.5 miles from their den each summer, with a maximum movement of 4.5 miles observed.	No	No deciduous forests with rugged terrain are within the Project area, therefore the Project is not likely to affect this species.	Due to the location, the type of habitat within the project area, and the type of work proposed, ODNR anticipates this project is not likely to impact this species.

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### Notes

<sup>1</sup> See attached references page for sources of habitat information

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**This foregoing document was electronically filed with the Public Utilities  
Commission of Ohio Docketing Information System on**

**11/29/2021 4:52:36 PM**

**in**

**Case No(s). 21-1168-EL-BNR**

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