Construction Notice for the Jerome – Rohan 138 kV Tie Lines Project

PUCO Case No. 24-0066-EL-BNR

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

Submitted by:
Ohio Power Company

February 6, 2024

CONSTRUCTION NOTICE

Ohio Power Company
Jerome – Rohan 138 kV Tie Lines Project

4906-6-05 Accelerated Application Requirements

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

4906-6-05(B) General Information

B(1) Project Description

The applicant shall provide the name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Construction Notice application.

The Company is proposing the Jerome - Rohan 138 kV Tie Lines Project (the "Project"), located in Jerome Township, Union County, Ohio. The Project consists of constructing four transmission tie lines, 0.05 miles each, between the Company's Jerome Station (approved in Case No. 23-0531-EL-BLN) and the customer's stepdown station. The Project is located on property owned by the customer and a portion in which the Project is located is anticipated to be transferred to the Company prior to construction. The location of the Project is shown on **Exhibit 1** and **Exhibit 2** of **Appendix A**.

The Project meets the requirements for a Construction Notice ("CN") because it is within the types of projects defined by Item (1)(c)(i) of 4906-1-01 *Appendix A Application Requirement Matrix For Electric Power Transmission Lines* of which states:

> *(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:*
>
> > *(c) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers, as follows:*
> >
> > > *(i) The line is completely on property owned by the specific customer or the applicant*

The Project has been assigned PUCO Case No. 24-0066-EL-BNR.

B(2) Statement of Need

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

A transmission customer is requesting 138 kV service to a site north of the Company's proposed Kileville Station (approved in Case No. 22-1119-EL-BLN) in Jerome Township, Ohio. The customer's load is expected to be 239 MW. To meet the customer's need, the Company will construct approximately 2.5 miles of new, double-circuit 138 kV line (a portion of line will be single circuit) from the Kileville 138 kV Station to the new Jerome Station at the customer's site. Also, the Company will construct another approximately 1.6 miles of 138 kV double-circuit line, which will tie the existing Amlin – Hyatt 138 kV circuit to the new Jerome Station. Service to the customer-owned station on the site will be provided by constructing four new 0.05-mile transmission lines from the Company's proposed Jerome Station to the customer's stepdown station, which is the subject of this filing.

Additional facilities required to interconnect customers in the area will be filed separately with OPSB and include rerouting the Hyatt-Hayden 345 kV line, constructing 1.1 miles of double circuit 345 kV line, and constructing a new Celtic Station.

Failure to move forward with the proposed Project will result in the Company's inability to serve the customer's load expectations, thereby jeopardizing the customer's plans in the area (239 MW peak).

The need for this customer driven supplemental project was presented and reviewed with stakeholders during the February 17, 2023 PJM SRRTEP meeting. The solution was presented and reviewed with stakeholders during the May 9, 2023 PJM TEAC meeting (**Appendix B)**. This Project was included in the Company's 2023 Supplemental Long Term Forecast Report on pages 26 through 28 (**Appendix B**).

B(3) Project Location

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

The Project is located in Jerome Township, Union County, Ohio. The location of the Project in relation to existing transmission lines and substations is shown on **Exhibit 1** in **Appendix A**. **Exhibit 2** in **Appendix A**, identifies the Project on aerial imagery obtained March 2023.

B(4) Alternatives Considered

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

The Project is located on the customer's property and aligns with the layout of the customer's proposed development plans. Due to the location of Jerome Station and the customer's step-down station (Rohan Station), the proposed tie lines are a direct connection between the two stations and no additional landowners are impacted. In addition, the proposed Project will not result in impacts to wetlands, streams, or known cultural resource areas eligible for the National Register of Historic Places, therefore,

no other alternatives were considered for the Project. The location of the Project minimizes impacts to the community and the environment, while satisfying the customer's engineering and construction needs. The Project represents the most suitable location and most appropriate solution for meeting the Company's and specific customer's needs in the area.

B(5) Public Information Program

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

The Company maintains a website (http://aeptransmission.com/ohio/) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library and each political subdivision affected by this Project.

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 anticipated to commence in May 2024 with a proposed in-service date of October 2024.

B(7) Area Map

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

Exhibit 1 in **Appendix A** identifies the location of the Project area on a 1:24,000 scale U.S. Geological Survey quadrangle map (Shawnee Hill and Hilliard, Ohio). **Exhibit 2** in **Appendix A** consists of an aerial map (March 2023) of the Project area.

To visit the Project from downtown Columbus, Ohio, take Interstate I-70 West/ I-70 South for 2 miles. Continue on I-70 West and take I-270 North to OH-161 West/Post Road in Dublin for approximately 19 miles. Take exit 106 from OH-161 West/US-33 West. Drive onto Industrial Parkway/Old US Highway 33 for 3 miles. The Project will be located on the left (latitude 40.133984, longitude -83.211135).

B(8) Property Agreements

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

The Project is located on one parcel, Parcel Number 1500260041000, which is owned by the customer. The Company anticipates a transfer of ownership for a portion of the parcel, which includes the Project, from the customer by the second quarter of 2024. No other property easements, options, or land use agreements are necessary to construct the Project.

B(9) Technical Features

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

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

The Project is proposed to include the following equipment. The equipment specified is applicable to all four tie-lines:

Voltage: 138 kV
Conductors: (3) 556KCM ASCR 26/7 Dove
Static Wire: (2) 7#10 Alumoweld
Insulators: Polymer
ROW Width: Not Applicable
Structure Types: Not Applicable

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(b)(ii) Design Alternatives
A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

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

B(9)(c) Project Costs

The estimated capital cost of the project.

The cost estimate for the Project, which is comprised of applicable tangible and capital costs, is approximately $553,560 using a Class 4 estimate. Per the Ohio retail tariff, the Customer is responsible for 40% of the cost of the Project. The remainder of the Project cost, pursuant to the PJM Open Access Transmission Tariff ("OATT"), will be recovered in the Company's Federal Energy Regulatory Commission ("FERC") formula rate (Attachment H-14 to the PJM OATT) and allocated to the AEP Zone.

B(10) Social and Economic Impacts

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

B(10)(a)
Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

An aerial photograph, dated March 2023, of the Project vicinity is provided as **Exhibit 2** in **Appendix A**. The Project is located in Jerome Township, Union County, Ohio. The existing and surrounding land use of the Project area consists of agricultural and commercial lots. Development occurring within this area is largely for industrial and commercial uses. The existing agricultural land surrounding the Project is to be developed by the customer. No places of worship, schools, institutions, hospitals, cemeteries, landmarks, or recreational areas were identified within 1,000 feet of the Project.

B(10)(b) Agricultural Land Information

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

The Project area (approximately 1.7 acres of impact) was previously used for agricultural crops but has been purchased for development by the customer. The surrounding area is characterized by agricultural, commercial, and industrial uses. No properties registered as agricultural district land are in the Project area based on coordination with the Union County Auditor's Office on February 2th, 2024.

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archeological 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.

In March 2023, the Company's consultant completed a Phase I Cultural Resource Management Investigation for the Project area. The investigation did not identify any archaeological sites. In addition, the architectural survey did not identify any culturally significant buildings or structures located in the Project area, and no previously recorded or potentially significant resources were identified. No further cultural resource work was deemed necessary for the Project and the State Historic Preservation Office concurred with these findings (**Appendix C)**.

B(10)(d) Local, State, and Federal Agency Correspondence
Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A Notice of Intent will be filed with the Ohio Environmental Protection Agency ("OEPA") for authorization of construction stormwater discharges under General Permit OHC000006 as part of the overall Jerome Station and will include the Project. The Company will implement and maintain best management

practices ("BMPs"), as outlined in the project-specific Stormwater Pollution Prevention Plan ("SWPPP") to minimize erosion and control sediment to protect surface water quality during storm events.

According to the Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps ("FIRM"), the Project area is not located in a 100-year floodplain or floodway (FEMA Map Number 39159C0390D). Therefore, no floodplain impacts are anticipated. As such, the Company will not be required to obtain floodplain permits from Union County for construction occurring in this area.

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

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

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

As part of the ecological study completed for the Project, coordination letters were sent to the U.S. Fish and Wildlife Service ("USFWS") and Ohio Department of Natural Resources-Division of Wildlife ("ODNR-DOW"). The USFWS's response was received on October 21, 2022, and ODNR-DOW's response was received on November 14, 2022. Copies of the agency correspondence letters are provided in **Appendix C**.

According to the USFWS's response, the Project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). The USFWS recommends avoiding tree removal where possible, and if necessary clearing trees only between October 1 and March 31. If trees must be cut during summer months, the USFWS recommends a mist net survey or acoustic survey to be conducted from June 1 to August 15, prior to any cutting. However, the Project does not require any tree clearing; therefore the Project is not anticipated to impact these species.

According to the response from the ODNR-DOW, the Project area is within range of four state-listed bat species including Indiana bat, northern long-eared bat, little brown bat (*Myotis lucifugus*), and tricolored bat (*Perimyotis subflavus*). If trees must be cut, the ODNR-DOW recommends implementing seasonal tree cutting from October 1 to March 31 and conserving trees with loose, shaggy bark; with crevices, holes, or cavities; or with a diameter breast height ("dbh") greater than or equal to 20 inches. ODNR-DOW recommended a desktop habitat assessment, which was conducted by the Company's consultant in accordance with the 2022 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines. A survey was completed and no karst regions or abandoned mines were identified within 0.25 miles of the Project and no potentially suitable winter hibernacula were observed during the field survey. Potentially suitable foraging and roosting habitat was observed, however, no tree clearing is required for the Project, therefore the Project is not anticipated to impact these species.

The ODNR also stated that the Project is within range of several listed mussel species: the federally endangered snuffbox (*Epioblasma triquetra*), clubshell (*Pleurobema clava*), northern riffleshell (*Epioblasma torulosa rangiana*), rayed bean (*Villosa fabalis*); the federally threatened rabbitsfoot (*Quadrula cylindrica cylindrica*); the state endangered elephant-ear (*Elliptio crassidens*); and the state

threatened pondhorn (*Uniomerus tetralasmus*). The ODNR-DOW does not anticipate any impacts to these species because no in-water work is proposed for the Project.

The Project is also within range of the American bittern (*Botaurus lentiginosus*) and king rail (*Rallus elegans*) state endangered birds, and the least bittern (*Ixobrychus exilis*) state threatened bird. Based on field surveys completed as part of the ecological survey there was not suitable habitat observed in the Project area for any of the avian species noted in ODNR letter. Therefore, the Project is not anticipated to impact these species.

B(10)(f) Areas of Ecological Concern

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

Coordination letters were submitted to the USFWS and ODNR requesting an identification of areas of ecological concern within the Project area. The USFWS's response email was received on October 21, 2022 (**Appendix C**) and did not indicate any federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project. The ODNR's response received on November 14, 2022 (**Appendix C**) did not indicate any known unique ecological sites, geologic features, scenic rivers, state wildlife areas, state natural preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the Project area.

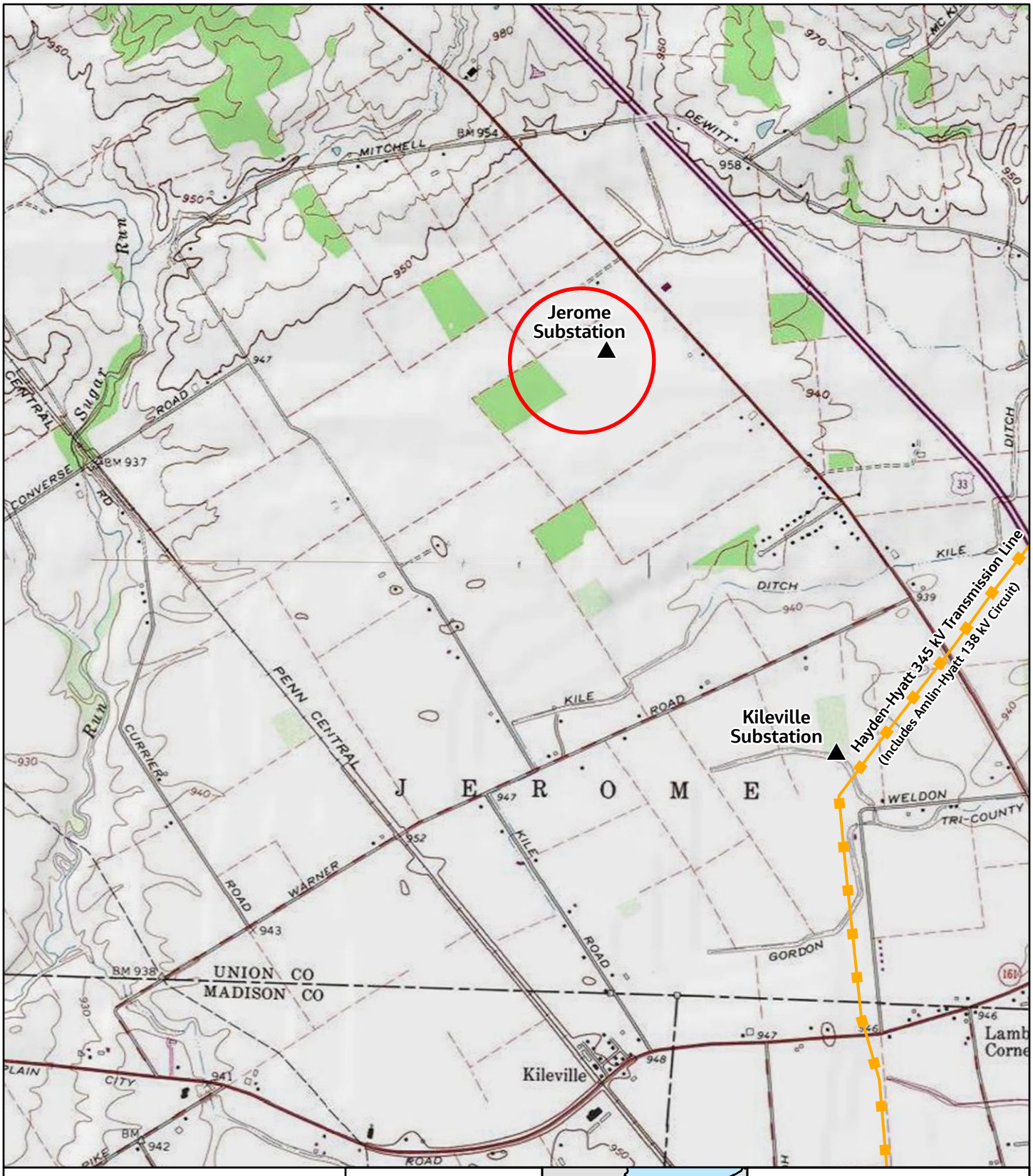
The Company's consultant completed a wetland and waterway delineation for the Project in September 2022. No wetlands, streams, or open waters were delineated within the Project area. The Company's consultant prepared an Ecological Survey Report for the Project area and the surrounding vicinity of the customers' property (**Appendix D**).

B(10)(g) Unusual Conditions

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

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

Appendix A Project Maps



Legend

- Project Area
- Existing Substation
- Existing Transmission Line

Base Map Source:
USGS Topographic Quads:
Hilliard and Shawnee Hills

Coordinate System
State Plane Ohio North
FIPS 3401 (US Feet)
Datum: NAD 1983
Scale: 1:24,000

1/9/2024

Exhibit 1
Topographic Overview

AEP OHIO
An AEP Company

Jerome-Rohan 138-kV
Tie Lines Project
Union County, OH

0 1,000 2,000
Feet

Legend

- Rohan Station (Customer Station)
- Jerome-Rohan 138kV Tie Lines
- Jerome Station (OPSB Case No. 23-0531-EL-BLN)
- Kileville-Jerome 138kV Transmission Line (OPSB Case No. 23-1009-EL-BLN)
- NHD Stream
- Roadways
- NWI Wetlands
- Parcels

Base Map Source:
ESRI World Imagery
(2023)

Coordinate System
State Plane Ohio North
FIPS 3401 (US Feet)
Datum: NAD 1983
Scale: 1:6,000

2/5/2024

Exhibit 2
Aerial Overview

AEP OHIO
An AEP Company

Jerome-Rohan 138-kV
Tie Lines Project
Union County, OH

0 400 800
Feet

Appendix B PJM Solution Submittal and 2023 Long Term Forecast Report

AEP Transmission Zone M-3 Process
Jerome

Need Number: AEP-2021-OH049

Process Stage: Solution Meeting 5/9/2023

Previously Presented: Needs Meeting 7/16/2021, Need Meeting 9/17/2021 & Need Meeting 2/17/2023

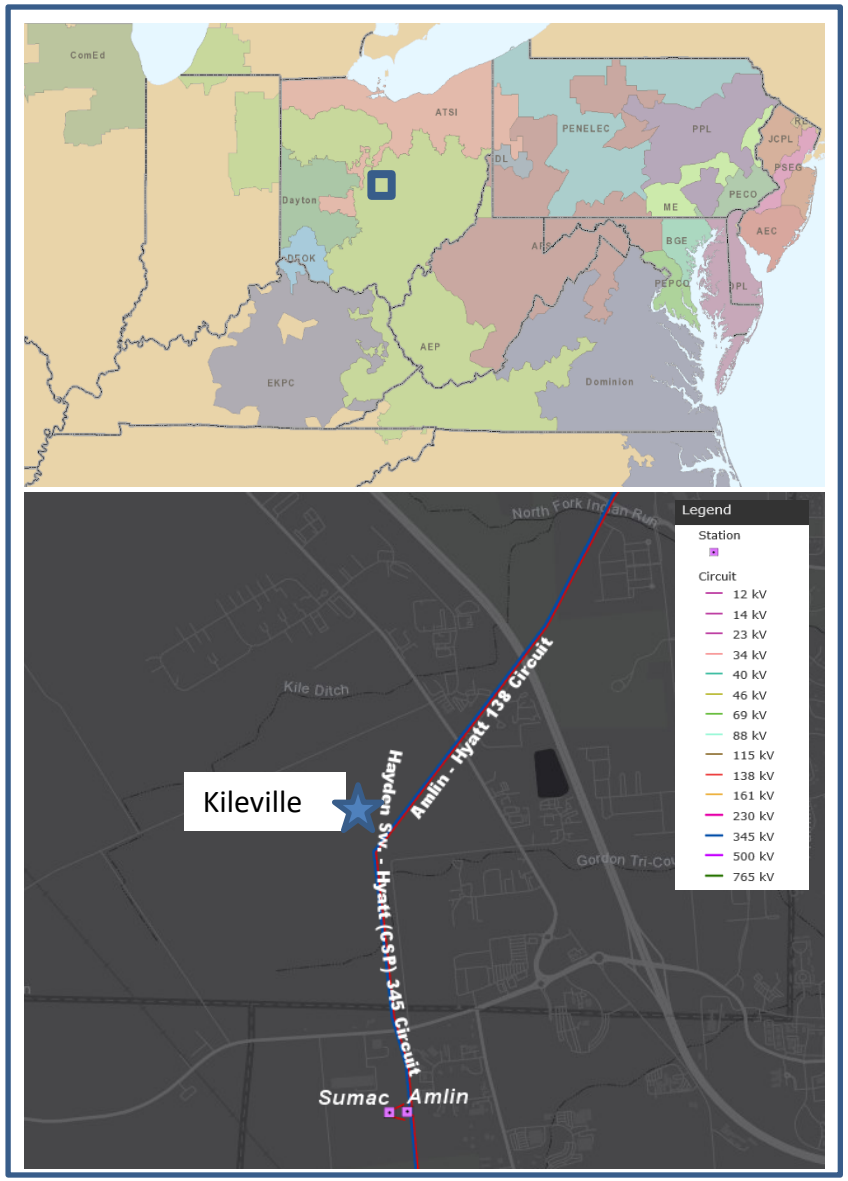
Project Driver: Customer Service

Specific Assumption Reference: AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

Problem Statement:

<u>Jerome Delivery Point (AEP) 138 kV:</u>

- A customer has requested new transmission service in Plain City, Ohio.
- The delivery point will be used to serve a customer with high potential for rapid load growth. The initial load will be 106 MW with a potential future peak load demand of 203 MW.
- Service is requested by June 2024.
- The customer communicated a much more aggressive load ramp/build out schedule that would put their peak load at approximately 160 MW by early 2025 at the site.
- This Need was originally presented as a Buckeye Power request; The customer has since requested service from AEP Ohio at the site. As part of this request, the customer has indicated the need for additional feeds at the delivery which will bring the load amount up to 203 MW.



AEP Transmission Zone M-3 Process
Dublin & Hilliard, OH

Need Number: AEP-2021-OH049

Process Stage: Solutions Meeting 5/9/2023

Proposed Solution:

The following scope of work is all direct connect facilities to physically connect demand to the grid.

- **Jerome 138 kV**: Construct a greenfield Jerome station with (11) 138kV 63kA 4000A circuit breakers in breaker and half bus configuration. Construct ~ 2.5 miles of double circuit 138kV transmission line extending from Celtic & Kileville stations utilizing 2-bundled ACSS Cardinal 954 (45/7) conductor, SE rating 1061 MVA. Construct ~1.6 miles of double circuit 138kV transmission line extending from Jerome to cut-in back to Hyatt – Amlin line utilizing 2-bundled ACSS Cardinal 954 (45/7) conductor, SE rating 1061 MVA. Construct (4) 138 kV tie lines to the customers dead end structures ~0.05 miles utilizing ACSR Dove 556.5 (26/7) conductor SE 284 MVA. Customers will be directly connected at this station. Cost: **$30 M**

PUCO Form FE-T9 Supplement:
AEP Ohio
Specifications of Planned Transmission Lines

6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$3.84 M
8.	**PLANNED SUBSTATION:**	Celtic
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	
1.	**LINE NAME AND NUMBER:**	Celtic - Hayden (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Celtic - Hayden INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	3.9 mi / 150 ft / 2 circuit (0.2 mi of line work)
4.	**VOLTAGE: DESIGN / OPERATE**	345 kV / 345 kV
5.	**APPLICATION FOR CERTIFICATE:**	2023
6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$3.84 M
8.	**PLANNED SUBSTATION:**	Celtic
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	
1.	**LINE NAME AND NUMBER:**	Jerome - Rohan #1 138 kV (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Jerome - Rohan #1 INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.05 mi / 100 ft / 1 circuit
4.	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5.	**APPLICATION FOR CERTIFICATE:**	2023
6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$0.11 M
8.	**PLANNED SUBSTATION:**	Jerome
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A

PUCO Form FE-T9 Supplement:
AEP Ohio
Specifications of Planned Transmission Lines

11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	
1.	**LINE NAME AND NUMBER:**	Jerome - Rohan #2 138 kV (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Jerome - Rohan #2 INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.05 mi / 100 ft / 1 circuit
4.	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5.	**APPLICATION FOR CERTIFICATE:**	2023
6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$0.11 M
8.	**PLANNED SUBSTATION:**	Jerome
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	
1.	**LINE NAME AND NUMBER:**	Jerome - Rohan #3 138 kV (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Jerome - Rohan #3 INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.05 mi / 100 ft / 1 circuit
4.	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5.	**APPLICATION FOR CERTIFICATE:**	2023
6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$0.11 M
8.	**PLANNED SUBSTATION:**	Jerome
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	

PUCO Form FE-T9 Supplement:
AEP Ohio
Specifications of Planned Transmission Lines

1.	**LINE NAME AND NUMBER:**	Jerome - Rohan #4 138 kV (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Jerome - Rohan #4 INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.05 mi / 100 ft / 1 circuit
4.	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5.	**APPLICATION FOR CERTIFICATE:**	2023
6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$0.11 M
8.	**PLANNED SUBSTATION:**	Jerome
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	
1.	**LINE NAME AND NUMBER:**	Kileville - Shire #3 138 kV (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Kileville - Shire #3 INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.03 mi / 100 ft / 1 circuit
4.	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5.	**APPLICATION FOR CERTIFICATE:**	2023
6.	**CONSTRUCTION:**	2024
7.	**CAPITAL INVESTMENT:**	$0.12 M
8.	**PLANNED SUBSTATION:**	N/A
9.	**SUPPORTING STRUCTURES:**	Steel
10.	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11.	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Service to new customer
12.	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13.	**MISCELLANEOUS:**	
1.	**LINE NAME AND NUMBER:**	Kileville - Shire #4 138 kV (TP2021576)
2.	**POINTS OF ORIGIN AND TERMINATION**	Kileville - Shire #4 INTERMEDIATE STATIONS - N/A
3.	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.03 mi / 100 ft / 1 circuit
4.	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV

Appendix C Agency Correspondence

In reply, refer to
2023-UNI-57388

March 17, 2023

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

RE: Jerome Station Project, Jerome Township, Union County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received March 14, 2023 regarding the proposed Jerome Station Project, Jerome Township, Union 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 39.4 ha (97.4 ac) Jerome Station Project in Jerome Township, Union County, Ohio* by Ryan J. Weller and Scott McIntosh (Weller & Associates, Inc., 2023).

A literature review, visual inspection, surface collection, shovel probe, and shovel test unit excavation was completed as part of the investigations. No previously identified archaeological site is located within the project area and no new archaeological sites were identified during survey. Our office agrees no additional archaeological survey is necessary. No architectural resources 50 years of age or older were identified within the Area of Potential Effects (APE).

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

Sincerely,

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1097344

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 14, 2022

Kim Carter
Stantec Consulting Services, Inc.
1500 Lake Shore Drive Suite 100
Columbus OH 43204

Re: 22-0995; AEP Jerome Station Install Project

Project: The proposed project involves an approximately 10-acre station, skid station and associated lines and stormwater/drainage.

Location: The proposed project is located in Jerome Township, Union County, Ohio.

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

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

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

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

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

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

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

The project is within the range of the following listed mussel species.
Federally Endangered
snuffbox (*Epioblasma triquetra*)
clubshell (*Pleurobema clava*)
Northern riffleshell (*Epioblasma torulosa rangiana*)
rayed bean (*Villosa fabalis*)

Federally Threatened
rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered
elephant-ear (*Elliptio crassidens crassidens*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)

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

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh

vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

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

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator

United States Department of the Interior

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

October 21, 2022

Project Code: 2022-0090848

Dear Ms. Carter:

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

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

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

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

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

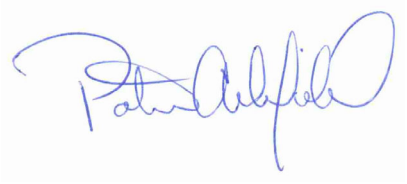
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing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

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

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

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

Sincerely,



Patrice Ashfield
Field Office Supervisor

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

Appendix D Ecological Survey Report

Jerome Station Install Project
Union County, Ohio

Ecological Survey Report

Prepared for:

AEP Ohio Transmission Company, Inc.
8600 Smiths Mill Road
New Albany, OH 43054

Prepared by:

Stantec Consulting Services Inc.
1500 Lake Shore Drive, Suite 100
Columbus, OH 43204

April 13, 2023

Sign-off Sheet

This document entitled Jerome Station Install Project Ecological Survey Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of AEP Ohio Transmission Company, Inc. (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by Zoe True

(signature)

Enter Name

Reviewed by Angela J Sjollema

(signature)

Angela Sjollema

Reviewed by Charlie Allen

(signature)

Charlie Allen

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2.0 INTRODUCTION

AEP Ohio Transmission Company, Inc. (AEP) is proposing to construct a new station in Union County, Ohio that is part of the greater Jerome Project and Loop Connection. The Jerome Station Install Project (the Project) is located in Jerome Township, Union County, Ohio. (Figure 1, Appendix B). The Project will include the construction of a new 138 Kilovolt (kV) station, a skid station, associated lines and stormwater/drainage. A 97.4-acre study area (the Project area) was surveyed for wetlands, waterbodies, open water features, upland drainage features, and potential threatened, endangered, and rare species habitat by Stantec Consulting Services Inc. (Stantec) biologists on September 26, 2022 (Figure 2, Appendix B). The approximate locations of features located up to 50 feet outside of the Project area were also recorded during the field surveys, where landowner access was permitted. However, no data forms were collected on features that did not extend into the Project area. These features are shown on the Figure 2 maps in Appendix B as "approximate" wetlands, streams (waterways), open waters, and upland drainage features.

3.0 METHODS

3.1 WETLAND DELINEATION

Prior to completing the field surveys, a desktop review of the Project area was conducted using U.S. Geological Survey (USGS) topographic maps, National Wetlands Inventory (NWI) maps, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data, and aerial imagery mapping. Stantec completed a wetland delineation study in accordance with the *Corps of Engineers Wetlands Delineation Manual* (USACE Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0; USACE 2010). Wetland categories were classified using the Ohio Rapid Assessment Method (ORAM) for Wetlands Version 5.0 (Mack 2001).

3.2 STREAM DELINEATION

Streams that demonstrated a continuously defined channel (bed and bank), ordinary high water mark (OHWM), and the disturbance of terrestrial vegetation were delineated within the Project area, per the protocols outlined in the USACE's Guidance on Ordinary High Water Mark Identification (Regulatory Guidance Letter, No. 05-05; USACE 2005). Delineated streams were classified as ephemeral, intermittent, or perennial per definitions in the Federal Register/Vol. 67, No. 10 (USACE 2002) and determined as potential Waters of the U.S. (WOTUS) in reference to the current guidance per interpretation of WOTUS that is consistent with the pre-2015 regulatory regime (40 CFR 230.3(s)) (USEPA 2022). Functional assessment of streams within the Project area was based on completion of the Ohio Environmental Protection Agency's (OEPA) Headwater Habitat Evaluation Index (HHEI; OEPA 2020) and/or Qualitative Habitat Evaluation Index (QHEI; OEPA 2006). The centerline and/or the OHWM locations of each waterway were identified and surveyed using a handheld sub-meter accuracy global positioning system (GPS) unit and mapped with GIS software. Additionally, the locations of upland drainage features (which lacked a continuously defined bed and bank/OHWM) identified within the Project area were also recorded with a sub-meter accuracy GPS unit during the field surveys.

3.3 RARE SPECIES

Prior to conducting the field surveys, Stantec contacted the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) for information regarding rare, threatened, or endangered species and their habitats of concern within the vicinity of the Project area (Appendix E – Agency Correspondence). To assess potential impacts to rare, threatened, or endangered species, Stantec scientists conducted a pedestrian reconnaissance of the Project area, collected information on existing habitats within the Project area, and assessed the potential for these habitats to be used by these species.

4.0 RESULTS

4.1 TERRESTRIAL HABITAT

Stantec completed field surveys within the Project area on September 26, 2022, for potentially suitable habitats for threatened and endangered species. Figure 3 (Appendix B) shows the land cover, vegetation communities, and any identified rare, threatened, or endangered species habitats observed within the Project area during the habitat assessment surveys. Representative photographs of the vegetation communities/habitats identified within the Project area are included in Appendix D-2 of this report (photo locations are shown on Figure 3 in Appendix B). Information regarding the vegetation communities/habitats identified within the Project area are provided in Table 1.

Table 1. Vegetation Communities and Land Cover Found within the Jerome Station Install Project Area, Union County, Ohio

Vegetation Communities and Land Cover Types within the Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
Old Field	Moderate to Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders, planted non-native species, and/or native highly tolerant taxa, and structures). Dominant species included red clover (*Trifolium pratense*), giant ragweed (*Ambrosia trifida*), alsike clover (*Trifolium hybridum*), alfalfa (*Medicago sativa*), yellow foxtail (*Setaria pumila*), Canadian thistle (*Cirsium arvense*), fall panic grass (*Panicum dichotomiflorum*), eastern cottonwood (*Populus deltoides*), English plantain (*Plantago lanceolata*), Canadian horseweed (*Erigeron canadensis*), daisy fleabane (*Erigeron annuus*), nodding foxtail (*Setaria faberi*), common dandelion (*Taraxacum officinale*), and heath aster (*Symphyotrichum ericoides)*.	No	83.27
Second Growth Deciduous Forest	Intermediate disturbance (dominated by plants that typify a stable phase of a native community that persists under some disturbance). Dominant species included eastern poison ivy (*Toxicodendron radicans*), green ash (*Fraxinus pennsylvanica*), spicebush (*Lindera benzoin*), clustered black snakeroot (*Sanicula odorata*), American basswood (*Tilia americana*), silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), frost grapevine (*Vitis vulpina*),	No	13.92

Vegetation Communities and Land Cover Types within the Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
	common blue violet (*Viola sororia*), and wood nettle (*Laportea canadensis*).		
Existing Gravel Driveway	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders, planted non-native species, and/or native highly tolerant taxa).	No	0.20
		TOTAL	**97.39**

4.2 WETLANDS

Desktop analysis determined that the Project Area contains four NWI features. Field surveys conducted on September 26, 2022 determined that all the NWI features were in upland areas and were not considered to be wetlands or streams. Table 2 summarizes the NWI dispositions within the Project area.

No wetlands were delineated within the Project area during the field surveys.

Table 2. Summary of NWI Disposition within the Jerome Station Install Project, Union County, Ohio

NWI Code	NWI Description	Figure 2 Page Number	Related Field Inventoried Resource	Comments
PFO1C	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded	1	SP01	PFO1C was delineated as an upland sample point.
PFO1C	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded	1	SP02	PFO1C was delineated as an upland sample point.
PFO1C	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded	1	SP03	PFO1C was delineated as an upland sample point.
PFO1C	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded	1	SP04	PFO1C was delineated as an upland sample point.

4.3 STREAMS

No streams were delineated within the Project area during the field surveys completed on September 26, 2022. The Project area also does not contain any mapped National Hydrography Data (NHD) waterbodies.

4.4 OPEN WATERS

No open waters (i.e., ponds, lakes) were delineated within the Project area during the field surveys completed on September 26, 2022.

4.5 RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Table 3. Summary of Potential Federal and Ohio State-Listed Species within the Jerome Station Install Project Area Union County, Ohio

Common/Scientific Names	*State Listed Status	*Federally Listed Status	Typical Habitat	Habitat Observed	Agency Comment** (Appendix D)	Potential Impacts and Avoidance Dates
Indiana bat/ *Myotis sodalis*	E	E	The Indiana bat is likely distributed over the entire State of Ohio, though not uniformly. This species generally forages in openings and edge habitats within upland and floodplain forest, but they also forage over old fields and pastures (Brack et al. 2010). Natural roost structures include trees (live or dead) with exfoliating bark, and exposure to solar radiation. Other important factors for roost trees include relative location to other trees, a permanent water source and foraging areas. Dead trees are preferred as maternity roosts; however, live trees are often used as secondary roosts depending on microclimate conditions (USFWS 2007, USFWS 2022). Roosts have also occasionally been found to consist of cracks and hollows in trees, utility poles, buildings, and bat boxes. Primarily use caves for hibernacula, although are also known to hibernate in abandoned underground mines (Brack et al. 2010).	No potentially suitable winter hibernacula were observed within the Project area. However, suitable summer roost and foraging habitat (deciduous forest) was observed within the Project area.	**ODNR** – This Project lies within the vicinity of records for the Indiana bat. Therefore, summer tree clearing is not recommended and additional summer surveys would not constitute a presence/absence survey. The ODNR DOW recommends tree clearing only occur between October 1 and March 31 and conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with dbh ≥ 20 inches. In addition, the DOW recommends a desktop habitat assessment, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. **USFWS** – If the proposed Project area contains trees ≥3 inches dbh, the USFWS recommends that trees be saved wherever possible. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, USFWS recommends that removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats.	Potentially suitable summer foraging and roosting habitat was observed in the Project area. AEP will determine if any tree clearing is necessary in areas containing suitable roosting habitat and will proceed in accordance with agency recommendations. **Avoidance Dates: April 1 through September 30**
Northern Long-eared Bat/ *Myotis septentrionalis*	E	T/PE	The northern long-eared bat is found throughout Ohio. This species generally forages in forested habitat and openings in forested habitat and utilizes cracks, cavities, and loose bark within live and dead trees, as well as buildings as roosting habitat (Brack et al. 2010; USFWS 2022). The species utilizes caves and abandoned mines as winter hibernacula. Various sized caves are used providing they have a constant temperature, high humidity, and little to no air current (Brack et al. 2010).	No potentially suitable winter hibernacula were observed within the Project area. However, suitable summer roost and foraging habitat (deciduous forest) was observed within the Project area.	**ODNR -** This Project lies within the range of the northern long-eared bat. The ODNR DOW recommends tree clearing only occur between October 1 and March 31 and conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with dbh ≥ 20 inches. In addition, the DOW recommends a desktop habitat assessment, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. **USFWS** – If the proposed Project area contains trees ≥3 inches dbh, the USFWS recommends that trees be saved wherever possible. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, USFWS recommends that removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal tree clearing is recommended to avoid adverse effects to the northern long-eared bat. Incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule.	Potentially suitable summer foraging and roosting habitat was observed in the Project area. AEP will determine if any tree clearing is necessary in areas containing suitable roosting habitat and will proceed in accordance with agency recommendations. **Avoidance Dates: April 1 through September 30**

Common/Scientific Names	*State Listed Status	*Federally Listed Status	Typical Habitat	Habitat Observed	Agency Comment** (Appendix D)	Potential Impacts and Avoidance Dates
Little Brown Bat/ *Myotis lucifugus*	E	N/A	This bat uses a wide range of habitats and man-made structures for roosting, including buildings and attics. Less frequently, they use hollows of trees. Winter hibernation sites typically consist of caves, tunnels, abandoned mines. Foraging habitat for this species generally occurs over water, along the edges of lakes and stream or in woodlands near waterbodies (NatureServe 2022).	No potentially suitable winter hibernacula were observed within the Project area. However, suitable summer roost habitat (second growth deciduous forest) was observed within the Project area.	**ODNR** - This Project lies within the range of the little brown bat. The ODNR DOW recommends tree clearing only occur between October 1 and March 31 and conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with dbh ≥ 20 inches. In addition, the DOW recommends a desktop habitat assessment, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. **USFWS** – No comment	Potentially suitable summer foraging and roosting habitat was observed in the Project area. AEP will determine if any tree clearing is necessary in areas containing suitable roosting habitat and will proceed in accordance with agency recommendations. **Avoidance Dates: April 1 through September 30**.
Tricolored Bat/ *Perimyotis subflavus*	E	PE	This species is found throughout Ohio and is associated with forested landscapes, foraging near trees and along waterways. Maternity and summer roosts usually occur in dead or live tree foliage, or in the south, in clumps of Spanish moss. Maternity colonies may also use tree cavities or man-made structures, such as buildings or bridges. Caves, mines, and rock crevices may be used as night roosts between foraging (NatureServe 2022).	No potentially suitable winter hibernacula were observed within the Project area. However, suitable summer roost habitat (second growth deciduous forest) was observed within the Project area.	**ODNR** - This Project lies within the range of the tricolored bat. The ODNR DOW recommends tree clearing only occur between October 1 and March 31 and conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with dbh ≥ 20 inches. In addition, the DOW recommends a desktop habitat assessment, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. **USFWS** – No comment.	Potentially suitable summer foraging and roosting habitat was observed in the Project area. AEP will determine if any tree clearing is necessary in areas containing suitable roosting habitat and will proceed in accordance with agency recommendations. **Avoidance Dates: April 1 through September 30**
Snuffbox / *Epioblasma triquetra*	E	E	Occurs in medium-sized streams to large rivers generally on mud, rocky, gravel, or sand substrates in flowing water. Often deeply buried in substrate and overlooked by collectors (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species. **USFWS** – Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.	No suitable habitat was observed within the Project area. In addition, no in-water work is proposed in a perennial stream. Therefore, this Project is not likely to impact this species.
Clubshell / *Pleurobema clava*	E	E	This is a species of small to medium-sized rivers and streams; generally found in clean, coarse sand and gravel in runs, often just downstream of a riffle, and cannot tolerate mud or slackwater conditions (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species. **USFWS** – Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.	No suitable habitat was observed within the Project area. In addition, no in-water work is proposed in a perennial stream. Therefore, this Project is not likely to impact this species.
Northern Riffleshell / *Epioblasma torulosa rangiana*	E	E	Preferred habitat is swiftly moving water. The high oxygen concentrations in swift streams may be necessary for survival. It is a species of riffle areas of smaller streams, and as such has fared better than larger river species (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species. **USFWS** – Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.	No suitable habitat was observed within the Project area. In addition, no in-water work is proposed in a perennial stream. Therefore, this Project is not likely to impact this species.

Common/Scientific Names	*State Listed Status	*Federally Listed Status	Typical Habitat	Habitat Observed	Agency Comment** (Appendix D)	Potential Impacts and Avoidance Dates
Rayed Bean / *Villosa fabalis*	E	E	It is generally known from smaller headwater creeks, but records exist in larger rivers. They are usually found in or near shoal or riffle areas, and in the shallow wave-washed areas of glacial lakes, including Lake Erie (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species. **USFWS** – Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.	No suitable habitat was observed within the Project area. In addition, no in-water work is proposed in a perennial stream. Therefore, this Project is not likely to impact this species.
Rabbitsfoot / *Quadrula cylindrica cylindrica*	E	T	The typical habitat is small to medium rivers with moderate to swift currents, and in smaller streams it inhabits bars or gravel and cobble close to the fast current (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species. **USFWS** – Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.	No suitable habitat was observed within the Project area. In addition, due to the location and habitat within the Project area, this Project is not likely to impact this species.
Elephant-ear / *Elliptio crassidens*	E	N/A	An inhabitant of channels in large creeks to rivers with moderate to swift currents, primarily on sand and limestone or rock substrates (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. 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. **USFWS** – No comment.	No suitable habitat was observed within the Project area. In addition, o in-water work is proposed in a perennial stream. Therefore, this Project is not likely to impact this species.
Pondhorn / *Uniomerus tetralasmus*	T	N/A	Typically inhabits quite or slow-moving, shallow waters of shoughs, borrow pits, ponds, ditches, and meandering streams. It is tolerant of poor water conditions and can be found well buried in a substrate of fine silt and/or mud (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. 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. **USFWS** – No comment.	No suitable habitat was observed within the Project area. In addition, no in-water work is proposed in a perennial stream. Therefore, this Project is not likely to impact this species.
American Bittern / *Botaurus lentiginosus*	E	N/A	Occurs primarily in large freshwater and (less often) brackish marshes, including lake and pond edges where cattails, sedges, or bulrushes are plentiful and marshes where there are patches of open water and aquatic bed vegetation (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. If large undisturbed wetlands with scattered small pools amongst dense vegetation, bogs, large wet meadows, or shrubby swamps will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, the Project is not likely to impact this species. **USFWS** – No comment.	No suitable habitat was observed within the Project area. Therefore, this Project is not likely to impact this species.
King Rail / *Rallus elegans*	E	N/A	Occurs in freshwater marshes, upland – wetland marsh edges, rice fields or similar flooded farmlands, shrub swamps (NatureServe 2022).	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. If areas with marsh vegetation will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the Project is not likely to impact this species. **USFWS** – No comment.	No suitable habitat was observed within the Project area. Therefore, this Project is not likely to impact this species.
Least Bittern / *Ixobrychus exilis*	T	N/A	Occurs in tall emergent vegetation in marshes, primarily freshwater, less commonly in coastal brackish marshes and	No suitable habitat was observed within the Project area.	**ODNR –** The Project is within the range of this species. If emergent wetland habitat will be impacted, construction should be avoided in this habitat during the species'	No suitable habitat was observed within the Project area. Therefore, this Project is not likely to impact this species.

Common/Scientific Names	*State Listed Status	*Federally Listed Status	Typical Habitat	Habitat Observed	Agency Comment** (Appendix D)	Potential Impacts and Avoidance Dates
			mangrove swamps. Prefers marshes with scattered bushes or other woody growth (NatureServe 2022).		nesting period of May 1 through July 31. If this habitat will not be impacted, this Project is not likely to impact this species. **USFWS** – No comment.	

*Status key: E=Endangered; T=Threatened; PE=Proposed Endangered

**The information is based on the literature review response information from ODNR and USFWS and is study area/project specific.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Stantec conducted a wetland and waterbodies delineation and a preliminary habitat assessment for threatened and endangered species within the Project area on September 26, 2022. During the field surveys, no wetlands, streams, or open water features were observed within the Project area.

The information provided by Stantec regarding wetland and stream boundaries is based on an analysis of the wetland and upland conditions present within the Project area at the time of the field work. The delineations were performed by experienced and qualified professionals using regulatory agency-accepted practices and sound professional judgment.

A technical assistance request letter was submitted to the USFWS on October 10, 2022, and a response letter was received on October 21, 2022. According to the USFWS response letter, the entire State of Ohio lies within the range of the federally threatened northern long-eared bat and federally endangered Indiana bat. Therefore, USFWS recommends that trees ≥ 3 inches diameter at breast height (dbh) be saved wherever possible and any tree removal that is unavoidable should only occur between October 1 and March 31 to avoid adverse effects to these species.

The Project area contains potentially suitable foraging and roosting habitat for the Indiana bat and northern long-eared bat. No potentially suitable hibernacula were observed within the Project area. AEP will determine if any tree clearing is necessary in areas containing suitable habitat and will proceed in accordance with agency recommendations.

The USFWS also stated that they do not anticipate adverse effects to any other federally endangered, threatened, proposed or candidate species due to the Project type, size, and location. The USFWS response letter also recommends that the proposed Project avoid and minimize impacts to all wetland habitats to the maximum extent possible and natural buffers around streams and wetlands should be preserved to enhance beneficial functions (Appendix E).

An ODNR Ohio Natural Heritage Program data request and environmental review request letter was sent to the ODNR Office of Real Estate on October 10, 2022. The ODNR Office of Real Estate response letter dated November 14, 2022, stated that the Project is within the vicinity of records for the federal and state endangered Indiana bat and entire state of Ohio is within the range of the federally threatened and state endangered northern long-eared bat, and state endangered little brown bat and tricolored bat. If trees are present within the Project area, and trees must be cut, the Division of Wildlife (DOW) recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with dbh ≥ 20 inches if possible. The DOW also recommends a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) are present within 0.25 mile of the Project area. Stantec completed a desktop habitat assessment in accordance with the 2022 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (USFWS 2022) utilizing available ODNR websites, including data on

known abandoned or active mines (ODNR 2022a) and locations of known or suspect karst geology (ODNR 2022b). The desktop assessment did not identify any karst regions or abandoned or active mines within 0.25 miles of the Project area (Figure 4; Appendix B). In addition, no potentially suitable winter hibernacula were observed during the field surveys. However, potentially suitable foraging and roosting habitat was observed within the Project area. AEP will determine if any tree clearing is necessary in areas containing suitable habitat and will proceed in accordance with agency recommendations.

According to the ODNR response letter, the Project is within the range of the federally endangered snuffbox, clubshell, northern riffleshell, and rayed bean, the federally threatened rabbitsfoot, the state endangered elephant-ear and the state threatened pondhorn freshwater mussels. However, the DOW states due to the location, and that no in-water work is proposed in a perennial stream, the Project is not likely to impact these species. In addition, no in-water work in any perennial stream is proposed by AEP, therefore, impacts to freshwater mussel species are not anticipated.

The ODNR response letter stated, the Project is within the range of the American bittern, a state listed endangered bird. ODNR recommends that if large undisturbed wetlands with scattered small pools amongst dense vegetation will be impacted by the Project, construction should be avoided in this habitat during this species' nesting period of May 1 through July 31. However, if this type of habitat will not be impacted, the Project is not likely to impact this species. No suitable habitat was observed within the Project area and, therefore, this Project is not likely to impact this species.

The ODNR response letter stated, the Project is within the range of the king rail, a state listed endangered bird. ODNR recommends that if marsh grass habitat will be impacted by the Project, construction should be avoided in this habitat during this species' nesting period of May 1 through July 31. However, if this type of habitat will not be impacted, the Project is not likely to impact this species. No suitable habitat was observed within the Project area and, therefore, this Project is not likely to impact this species.

The ODNR response letter stated, the Project is within the range of the least bittern, a state listed threatened bird. ODNR recommends that if densely vegetated emergent wetlands will be impacted, construction should be avoided in this habitat during this species' nesting period of May 1 through July 31. However, if this type of habitat will not be impacted, this Project is not likely to impact this species. No suitable habitat was observed within the Project area, and, therefore, this Project is not likely to impact this species.

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APPENDIX A WETLAND IMPACTS TABLE

Table 1. Summary of NWI Disposition within the Jerome Station Install Project, Union County, Ohio

NWI Code	NWI Description	Figure 2 Page Number	Related Field Inventoried Resource	Comments
PFO1C	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded	1	SP01	PFO1C was delineated as an upland sample point.
PFO1C	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded	1	SP02	PFO1C was delineated as an upland sample point.
PFO1C	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded	1	SP03	PFO1C was delineated as an upland sample point.
PFO1C	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded	1	SP04	PFO1C was delineated as an upland sample point.

APPENDIX B FIGURES

B.1 PROJECT LOCATION MAP

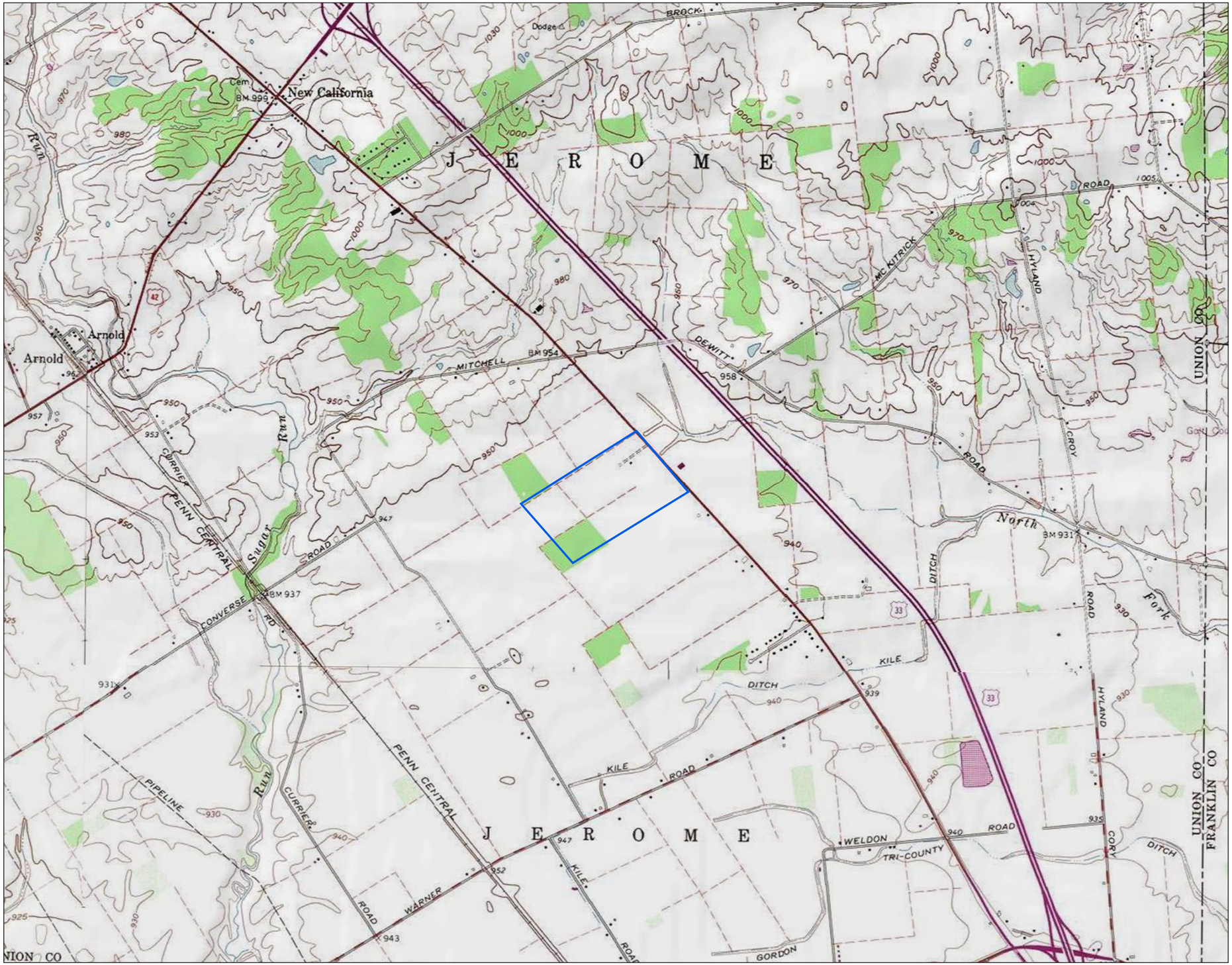


Figure No.

1

Title

Project Location Map

Client/Project 193708935

AEP Ohio Transmission Company, Inc.
Jerome Station Install Project

Project Location
Union County, Ohio

Prepared by JDS on 2022-09-22
TR by CA on 2022-10-11
IR by AS on 2022-10-11

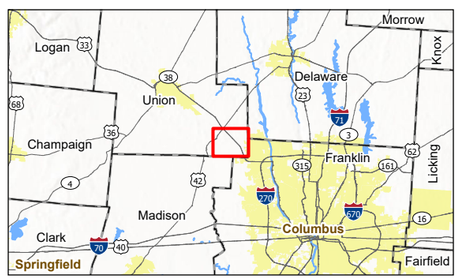
N

0 1,000 2,000 Feet

(At original document size of 11x17)
1:24,000

Legend

Project Area



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, AEP, USGS, NADS
3. Background: USGS 7.5' Topographic Quadrangles - Shawnee Hills, OH (1975)

Stantec

B.2 WETLAND AND WATERBODY DELINEATION MAP

Figure No.
2

Title
Wetland and Waterbody Delineation Map

Client/Project 193708935
AEP Ohio Transmission Company, Inc.
Jerome Station Install Project

Project Location
Union County, Ohio

Prepared by JDS on 2022-10-04
TR by ML on 2022-10-04
IR by AS on 2022-10-27

N

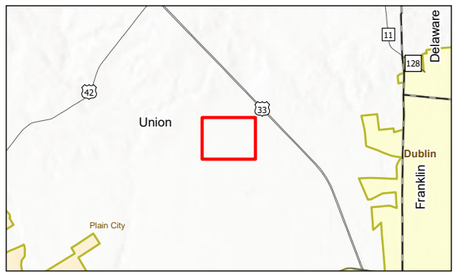
0 150 300 Feet
(At original document size of 11x17)
1:3,600

Legend
- Project Area
- Proposed Jerome Station
- Photo Location
- Sample Point
- National Wetlands Inventory Feature

National Hydrography Dataset
- Perennial Stream*
- Intermittent Stream
- Waterbody*

FEMA Flood Hazard Area*
- 100-year Floodplain
- Floodway

*No features within data frame



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, AEP, USGS, USFWS, FEMA, NADS, OGRIP
3. Orthophotography: NAIP 2021

Stantec

B.3 HABITAT ASSESSMENT MAP

Figure No.
3

Title
Habitat Assessment Map

Client/Project
AEP Ohio Transmission Company, Inc.
Jerome Station Install Project

193708935

Project Location
Union County, Ohio

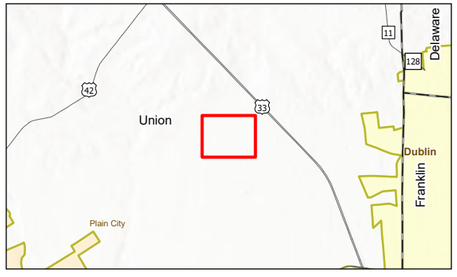
Prepared by JDS on 2022-10-04
TR by CA on 2022-10-11
IR by AS on 2022-10-11

N

0 150 300 Feet
(At original document size of 11x17)
1:3,600

Legend
- Project Area
- Proposed Jerome Station
- Photo Location

Habitat
- Old Field
- Second Growth Deciduous Forest
- Existing Gravel Driveway



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, AEP, USGS, USFWS, FEMA, NADS, OGRIP
3. Orthophotography: NAIP 2021

Stantec

B.4 HIBERNACULA DESKTOP STUDY MAP

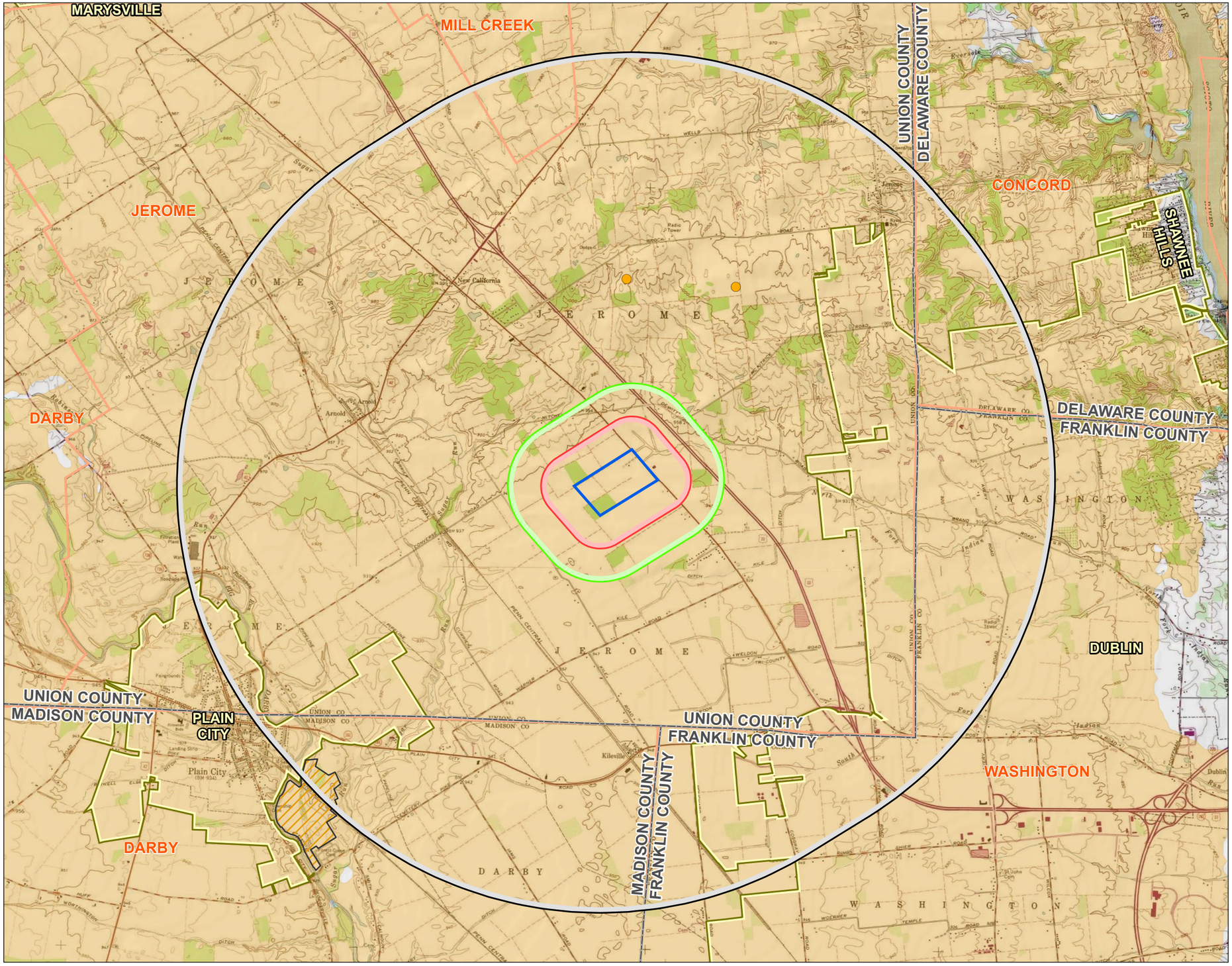


Figure No.
4

Title
Bat Hibernacula Desktop Study Map

Client/Project
AEP Ohio Transmission Company, Inc.
Jerome Station Install Project

193708935

Project Location
Union County, Ohio

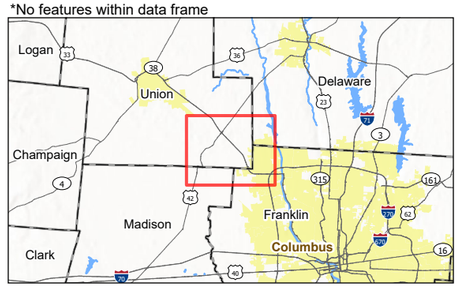
Prepared by JDS on 2022-10-11
TR by CA on 2022-10-11
IR by AS on 2022-10-11

N

0 2,000 4,000 Feet
(At original document size of 11x17)
1:48,000

Legend
- Project Area
- 0.25-Mile Project Area Buffer
- 0.5-Mile Project Area Buffer
- 3-Mile Project Area Buffer
- Township Boundary
- Municipal Boundary
- Karst Feature
- Area of Karst Geology
- Abandoned Underground Mine*
- Inactive Mine*
- Active Surface Mine*
- Abandoned Surface Mine*
- Abandoned Underground Mine*
- Inactive Surface Mine*
- Active Surface Mine
- Surface Mine (Unknown Status)*

*No features within data frame



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, AEP, USGS, ODNR, NADS
3. Background: USGS 7.5' Topographic Quadrangles - Marysville, (1974), Plain City, OH (1963), Shawnee Hills, OH (1975), New Albany, OH (1983), Sunbury, OH (1975)

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APPENDIX C FIELD COLLECTED DATA FORMS

C.1 WETLAND DETERMINATION FORMS

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Jerome Station Install Project City/County: Union Sampling Date: 09/26/2022

Applicant/Owner: AEP Ohio Transmission Company, Inc. State: Ohio Sampling Point: SP01

Investigator(s): S. Heitzenrater, M. Kearns Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Linear Slope %: 0

Subregion (LRR or MLRA): LRR M, MLRA Lat: 40.132083 Long: -83.215873 Datum: WGS84

Soil Map Unit Name: Brookston silty clay loam, fine texture, 0 to 2 percent slopes NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1. Tilia americana	40	Yes	FACU
2. Acer saccharinum	30	Yes	FACW
3.			
4.			
5.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Lindera benzoin	70	Yes	FACW
2. Fraxinus pennsylvanica	20	Yes	FACW
3.			
4.			
5.			
	90	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Viola sororia	3	No	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	3	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- - 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- - 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

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

SOIL

Sampling Point: SP01

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-21	10YR 2/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present	Yes ___	No X	Depth (inches): ___
Water Table Present	Yes ___	No X	Depth (inches): ___
Saturation Present (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Jerome Station Install Project | City/County: Union | Sampling Date: 09/26/2022

Applicant/Owner: AEP Ohio Transmission Company, Inc. | State: Ohio | Sampling Point: SP02

Investigator(s): S. Heitzenrater, M. Kearns | Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace | Local relief (concave, convex, none): Linear | Slope %: 0

Subregion (LRR or MLRA): LRR M, MLRA | Lat: 40.131335 | Long: -83.214996 | Datum: WGS84

Soil Map Unit Name: Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes | NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1. Acer saccharum	50	Yes	FACU
2. Fagus grandifolia	40	Yes	FACU
3.			
4.			
5.			
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Acer saccharum	40	Yes	FACU
2.			
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Asarum canadense	65	Yes	FACU
2. Smilax hispida	10	No	FAC
3. Hydrophyllum virginianum	5	No	FAC
4. Fraxinus pennsylvanica	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	15	x 3 =	45
FACU species	195	x 4 =	780
UPL species	0	x 5 =	0
Column Totals:	215 (A)		835 (B)

Prevalence Index = B/A = 3.88

Hydrophytic Vegetation Indicators:

- - 1 - Rapid Test for Hydrophytic Vegetation
- - 2 - Dominance Test is >50%
- - 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

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

SOIL

Sampling Point: SP02

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-21	10YR 3/3	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present	Yes ___	No X	Depth (inches): ___
Water Table Present	Yes ___	No X	Depth (inches): ___
Saturation Present (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Jerome Station Install Project | City/County: Union | Sampling Date: 09/26/2022

Applicant/Owner: AEP Ohio Transmission Company, Inc. | State: Ohio | Sampling Point: SP03

Investigator(s): S. Heitzenrater, M. Kearns | Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace | Local relief (concave, convex, none): Linear | Slope %: 0

Subregion (LRR or MLRA): LRR M, MLRA | Lat: 40.131761 | Long: -83.214205 | Datum: WGS84

Soil Map Unit Name: Brookston silty clay loam, fine texture, 0 to 2 percent slopes | NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1. Acer rubrum	40	Yes	FAC
2. Fagus grandifolia	25	Yes	FACU
3.			
4.			
5.			
	65	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Lindera benzoin	60	Yes	FACW
2. Ulmus americana	10	No	FACW
3.			
4.			
5.			
	70	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Ribes americanum	15	Yes	FACW
2. Lindera benzoin	10	Yes	FACW
3. Carex grayi	3	No	FACW
4. Parthenocissus quinquefolia	2	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- - 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: SP03

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-21	10YR 3/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present	Yes ___	No X	Depth (inches): ___
Water Table Present	Yes ___	No X	Depth (inches): ___
Saturation Present (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Jerome Station Install Project City/County: Union Sampling Date: 09/26/2022

Applicant/Owner: AEP Ohio Transmission Company, Inc. State: Ohio Sampling Point: SP04

Investigator(s): S. Heitzenrater, M. Kearns Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Linear Slope %: 0

Subregion (LRR or MLRA): LRR M, MLRA Lat: 40.132225 Long: -83.214634 Datum: WGS84

Soil Map Unit Name: Brookston silty clay loam, fine texture, 0 to 2 percent slopes NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1. Fagus grandifolia	30	Yes	FACU
2. Tilia americana	30	Yes	FACU
3. Acer saccharum	20	Yes	FACU
4.			
5.			
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Lindera benzoin	45	Yes	FACW
2. Acer saccharum	30	Yes	FACU
3.			
4.			
5.			
	75	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Asarum canadense	45	Yes	FACU
2. Parthenocissus quinquefolia	15	Yes	FACU
3. Viola canadensis	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 14 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	0	x 3 =	0
FACU species	180	x 4 =	720
UPL species	0	x 5 =	0
Column Totals:	225 (A)		810 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

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

SOIL

Sampling Point: SP04

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-21	10YR 3/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present	Yes ___	No X	Depth (inches): ___
Water Table Present	Yes ___	No X	Depth (inches): ___
Saturation Present (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

APPENDIX D REPRESENTATIVE PHOTOGRAPHS

D.1 WETLAND AND WATERBODY PHOTOGRAPHS

Photo Location 1. View of PFO1C NWI feature (SP01; upland). Photograph taken facing southeast.

Photo Location 1. View of PFO1C NWI feature (SP01; upland), soil profile.

Photo Location 2. View of PFO1C NWI feature (SP02; upland). Photograph taken facing east.

Photo Location 2. View PFO1C of NWI feature (SP02; upland), soil profile.

Photo Location 3. View of PFO1C NWI feature (SP03; upland). Photograph taken facing northwest.

Photo Location 3. View of PFO1C NWI feature (SP03; upland), soil profile.

Photo Location 4. View of PFO1C NWI feature (SP04; upland). Photograph taken facing east.

Photo Location 4. View of PFO1C NWI feature (SP04; upland), soil profile.

D.2 HABITAT PHOTOGRAPHS

Photo Location 1. View of old field habitat. Photograph taken facing south.

Photo Location 1. View of old field habitat. Photograph taken facing north.

Photo Location 2. View of old field habitat. Photograph taken facing south.

Photo Location 2. View of old field habitat. Photograph taken facing north.

Photo Location 3. View of second growth deciduous forest habitat. Photograph taken facing north.

Photo Location 3. View of second growth deciduous forest habitat. Photograph taken facing south.

Photo Location 4. View of second growth deciduous habitat. Photograph taken facing south.

Photo Location 4. View of second growth deciduous habitat. Photograph taken facing north.

Photo Location 5. View of old field habitat. Photograph taken facing north.

Photo Location 5. View of old field habitat. Photograph taken facing south.

Photo Location 6. View of old field habitat. Photograph taken facing north.

Photo Location 6. View of old field habitat. Photograph taken facing south.

Photo Location 7. View of old field habitat. Photograph taken facing north.

Photo Location 7. View of old field habitat. Photograph taken facing south.

Photo Location 8. View of existing gravel drive habitat. Photograph taken facing east.

Photo Location 8. View of existing gravel drive habitat. Photograph taken facing west.

Photo Location 9. View of old field habitat. Photograph taken facing north.

Photo Location 9. View of old field habitat. Photograph taken facing south.

Agency Correspondence
April 13, 2023

APPENDIX E AGENCY CORRESPONDENCE

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 14, 2022

Kim Carter
Stantec Consulting Services, Inc.
1500 Lake Shore Drive Suite 100
Columbus OH 43204

Re: 22-0995; AEP Jerome Station Install Project

Project: The proposed project involves an approximately 10-acre station, skid station and associated lines and stormwater/drainage.

Location: The proposed project is located in Jerome Township, Union County, Ohio.

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

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

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

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

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

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

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

The project is within the range of the following listed mussel species.
Federally Endangered
snuffbox (*Epioblasma triquetra*)
clubshell (*Pleurobema clava*)
Northern riffleshell (*Epioblasma torulosa rangiana*)
rayed bean (*Villosa fabalis*)

Federally Threatened
rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered
elephant-ear (*Elliptio crassidens crassidens*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)

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

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh

vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

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

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator

United States Department of the Interior

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

October 21, 2022

Project Code: 2022-0090848

Dear Ms. Carter:

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

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

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

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

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

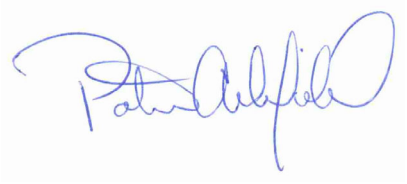
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing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

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

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

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

Sincerely,



Patrice Ashfield
Field Office Supervisor

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