Letter of Notification for Rocky Ford 138 kV Station Project

AEP OHIO TRANSMISSION COMPANY

An AEP Company

BOUNDLESS ENERGY

PUCO Case No. 24-0707-EL-BLN

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

Submitted by:
AEP Ohio Transmission Company, Inc.

September 10, 2024

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.
Rocky Ford 138 kV Station Project

4906-6-05

AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco" or the "Company") provides the following information to the Ohio Power Siting Board ("OPSB") pursuant to Ohio Administrative Code Section 4906-6-05.

4906-6-5(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification.

The Company proposes to construct the Rocky Ford 138 kV Station Project (the "Project") in Cass Township, Hancock County, Ohio. The Project will provide a 138 kV interconnection to the Border Basin facility (OPSB Case Number 21-0277-EL-BGN), proposed by Border Basin I, LLC, an Independent Power Producer ("IPP"). The PJM Queue Position is AE1-146. The Project includes construction of the Rocky Ford Station (approximately 6.25 acres). The cut-in on the Fostoria-East Lima 138 kV transmission line and the generation tie lines between the Rocky Ford Station and the IPP's station will be filed separately with OPSB (Case No. 24-0706-EL-BNR). The location of the Project is shown on Figure 1 and 2 in Appendix A.

The Project meets the requirements for a Letter of Notification ("LON") because it is within the types of projects defined by item (3) of Appendix A to O.A.C. 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*. This item states:

(3) Constructing a new electric power transmission substation.

The Project has been assigned PUCO Case No. 24-0707-EL-BLN

B(2) Statement of Need

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

The Border Basin I IPP plans to build a 120 MW Maximum Facility Output (81 MW Capacity) solar generating facility near Arcadia, Ohio. As part of the AE1-146 IPP Interconnection Service Agreement, the Company will be required to connect the proposed facilities to the electric grid. As a result, the Company will build the Rocky Ford 138 kV Station and cut into the Fostoria-East Lima 138kV line (specifically the Ebersole-Fostoria Central 138 kV circuit) to install less than 0.1 mile of 138 kV transmission line. The Company will also be required to construct one span of conductor from the proposed Rocky Ford Station to the IPP's station.

Failure to move forward with the proposed Project will result in the Company's inability to serve the customer's generation interconnection request, thereby jeopardizing the customer's required in-service date per the FERC approved Interconnection Service Agreement.

The Project is assigned the PJM network upgrade number n8130. The OPSB has approved the generating facility (21-0277-EL-BGN). The Project was included in the Company's 2024 Long Term Forecast Report on page 109 & 110 (See Appendix B).

B(3) Project Location

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

The Project is located in Cass Township, Hancock County, Ohio. Figures 1 and 2 in Appendix A show the location of the proposed Project in relation to existing transmission facilities.

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 proposed Rocky Ford Station, generation tie line, and the cut-in line are located on one property currently owned by a third party. Property ownership is to be transferred to AEP Ohio Transco. No impacts to wetlands, streams, or cultural resources or tree clearing are anticipated for the Project. Based on the IPP's proposed development and existing facilities in the area, the proposed location is the most suitable and least impactful for the Project. Other alternatives would require impacting neighboring properties and would add additional transmission length to the associated projects without any additional benefit. Therefore, the Project represents the most suitable location and is the most appropriate solution for meeting the Company and IPP'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 will inform affected property owners and tenants about this Project through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of Ohio Adminstrative Code ("OAC") Section 4906-6-08(A)(1-6). Further, the Company has mailed (or will mail) a letter, via first class mail, to affected landowners, tenants, and contiguous owners. The letter will comply with all

requirements of OAC Section 4906-6-08(B). The Company maintains a website (http://aeptransmission.com/ohio/) which provides the public access to an electronic copy of this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this proposed Project. Lastly, AEP Ohio Transco also retains ROW land agents who discuss project timelines, construction, and restoration activities with affected owners and tenants.

B(6) Construction Schedule

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

Construction is planned to start in January of 2025 and the anticipated in-service date will be December of 2025.

B(7) Area Map

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

Figure 1 in Appendix A provides a topographical map (Arcadia, OH and Bloomdale, OH topographic quadrangles) of existing and proposed facilities at 1:24,000, and Figure 2 in Appendix A provides an aerial image from 2021 showing roads and highways, clearly marked with Project components.

To visit the Project from Columbus, take I-71 N for 22.1 miles to Berkshire Township. Take the exit for US-36 East. Take a left onto US-36 East to Delaware. Take US-36 East for 6.8 miles to OH-37 West/East Central Avenue. Take a slight right on OH-37 West/East Central Ave to US-23 North to Marion (0.9 miles). Take US-23 North for 54.1 miles to County Highway 95. Take County Highway 95 for 1.2 miles to OH-568 West. Take OH-568 West for 8.2 miles to Township Road 215. Go north on Township Road 215 for 5.2 miles to Township Road 238. Take a right on Township Road 238. Go north on Township Road 238 for 0.8 mile. The Project will be on the right, east of Township Road 238. The latitude and longitude coordinates for the Project are 41°6'26.44"N and 83°34'15.19"W, respectively.

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 property currently owned by a third party (Parcel No. 130001029770). However, AEP Ohio Transco will acquire the portion of the parcel where the Project is located and the Project will be entirely located on land wholly owned by the Company. 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 Rocky Ford 138 kV Station is estimated to include the following:

- 16'x 27'- Drop In Control Module
- (3) 138 kV Circuit Breakers, 3000A
- (3) Takeoff structures (2-Phase-over-phase, 1-H-Frame)

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.

This Project is not located within 100 feet of any occupied residences or institutions. Therefore, this section is not applicable.

B(9)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately $8,700,000 using a Class 4 estimate. The costs for this Project will be recovered through total reimbursement by the IPP.

B(10) Social and Economic Impacts

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

B(10)(a) Land Use Characteristics

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

The Project is located in Cass Township, Hancock County, Ohio. The Hancock County Auditor website lists the land use of the parcel as "Other Agricultural Use with Outbuildings Qualified for Current Use Value". Field observations indicated that the Project area is comprised entirely of agricultural field. The Company anticipates that no tree clearing will be required for the Project.

No residences are located within 100 feet of the Project area. No cemeteries, churches, schools, or other community facilities are located within 1,000 feet of the Project area.

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 consists of approximately 6.25 acres of agricultural land. As verified by the Hancock County Auditor's Office on August 20, 2024, the parcel located within the Project area is currently enrolled in the Agricultural District Land program. This parcel will not be eligible and will be withdrawn from the program by the Company.

B(10)(c) Archaeological and Cultural Resources

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

Phase I archaeological and history/architectural surveys were conducted by the Company's consultant for the Project in January of 2024. There were no previously identified archaeological sites located within the Project area. One new archaeological site was identified during the surveys. This site was not recommended eligible for listing in the National Register of Historic Places ("NRHP"). A total of six resources fifty years of age or older were identified in the Area of Potential Effects ("APE"). The Company's consultant's recommendation that none of the resources are eligible for listing in the NRHP. Correspondence from the State Historic Preservation Office ("SHPO") was received on February 12, 2024 and is included in Appendix C. The SHPO stated that they agree the Project will have no effect on historic properties and no further coordination is necessary.

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.

Best management practices ("BMPs") will be implemented and maintained to minimize erosion and control sediment to protect surface water quality during storm events. A Storm Water Pollution Prevention Plan ("SWPPP") will be prepared for the Project and a Notice of Intent (NOI) will be filed with the Ohio Environmental Protection Agency ("OEPA") for authorization of construction storm water discharges under General Permit OHC000006. The SWPPP will include the limits of disturbance for construction of the new substation, as well as the limits of disturbance for the transmission line cut-in and generation tie line construction activities.

There are no wetlands, streams, or open waters located within the proposed limits of disturbance for construction of the Project (see Ecological Survey Report provided in Appendix D). Therefore, the Project

will not require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or a Section 401 Water Quality Certification from the Ohio Environmental Protection Agency.

The Project is not crossed by Federal Emergency Management Agency ("FEMA") 100-year floodplains or floodways. Therefore, no floodplain permitting is required for the Project.

There are no other known local, state, or federal permitting 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, a coordination letter was submitted to the U.S. Fish and Wildlife Service ("USFWS") Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. The February 6, 2024 response letter from the USFWS (Appendix C) identified the Indiana bat (*Myotis sodalis*; federally-listed endangered), northern long-eared bat (*Myotis septentrionalis*; federally-listed endangerd), and tricolored bat (*Perimyotis subflavus*; proposed federally listed endangered) as potentially occurring within the Project area. The USFWS recommends that if no caves or abandoned mines are present and trees ≥3 inches cannot be avoided, trees should be removed between October 1 and March 31 to avoid adverse effects to Indiana bats, northern long-eared bats, and tricolored bats during the brood-rearing months. No tree clearing is anticipated to be required for the Project. Therefore, no impacts to the Indiana bat, northern long-eared bat, or tricolored bat are anticipated.

Additionally, due to the Project type, size, and location, the USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.

An environmental review request letter was submitted to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate and a response letter was received on March 4, 2024 (Appendix C). According to the ODNR, the Indiana bat (state-listed endangered), little brown bat (*Myotis lucifugus*; state-listed endangered), northern long-eared bat (state-listed endangered), and tricolored bat (state-listed endangered) occur statewide in Ohio. These species also roost in trees during the summer months and the little brown bat and tricolored bat also roost in buildings. However, no potentially suitable summer roosting habitat for these species was identified within the Project area.

The ODNR also recommended 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. If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the Project area, the ODNR requested that this information be sent to them for project recommendations. No potential hibernacula were documented within the Project area by desktop review or during the ecological field

surveys (see Ecological Survey Report, Appendix D). The Project is not anticipated to require any tree clearing. Additionally, no buildings will be removed as part of the Project. Therefore, no impacts to the Indiana bat, northern long-eared bat, little brown bat, or tricolored bat are anticipated.

The response letter received from the ODNR Office of Real Estate also states that the Project is within the range of the following aquatic state-listed endangered and/or threatened species: clubshell (*Pleurobema clava*; state-listed and federally listed endangered), rayed bean (*Villosa fabalis*; state-listed and federally listed endangered), purple lilliput (*Toxolasma lividum*; state-listed endangered), pondhorn (*Uniomerus tetralasmus*; state-listed threatened), salamander mussel (*Simpsonaias ambigua*; state-listed threatened), and western banded killifish (*Fundulus diaphanus menona*; state-listed endangered). However, the ODNR stated that if there is no in-water work proposed in a perennial stream, this Project is not likely to impact these species.

The ODNR also stated that the Project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird. This is a common migrant and winter species in Ohio. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, the ODNR stated that this project is not likely to impact this species. No suitable nesting habitat for the northern harrier is located within the Project area. Therefore, impacts to the northern harrier are not anticpated.

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.

There are no federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project area (Appendix C). Additionally, the ODNR Office of Real Estate response letter indicates that they are not aware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas that are located within a one-mile radius of the Project area (Appendix C).

The FEMA Flood Insurance Rate Map with coverage of the Project area was consulted to identify any floodplains/flood hazard areas that have been mapped in the Project area (specifically, map number 39063C0230E). Based on this map, no mapped FEMA floodplains or floodways are located within the Project area.

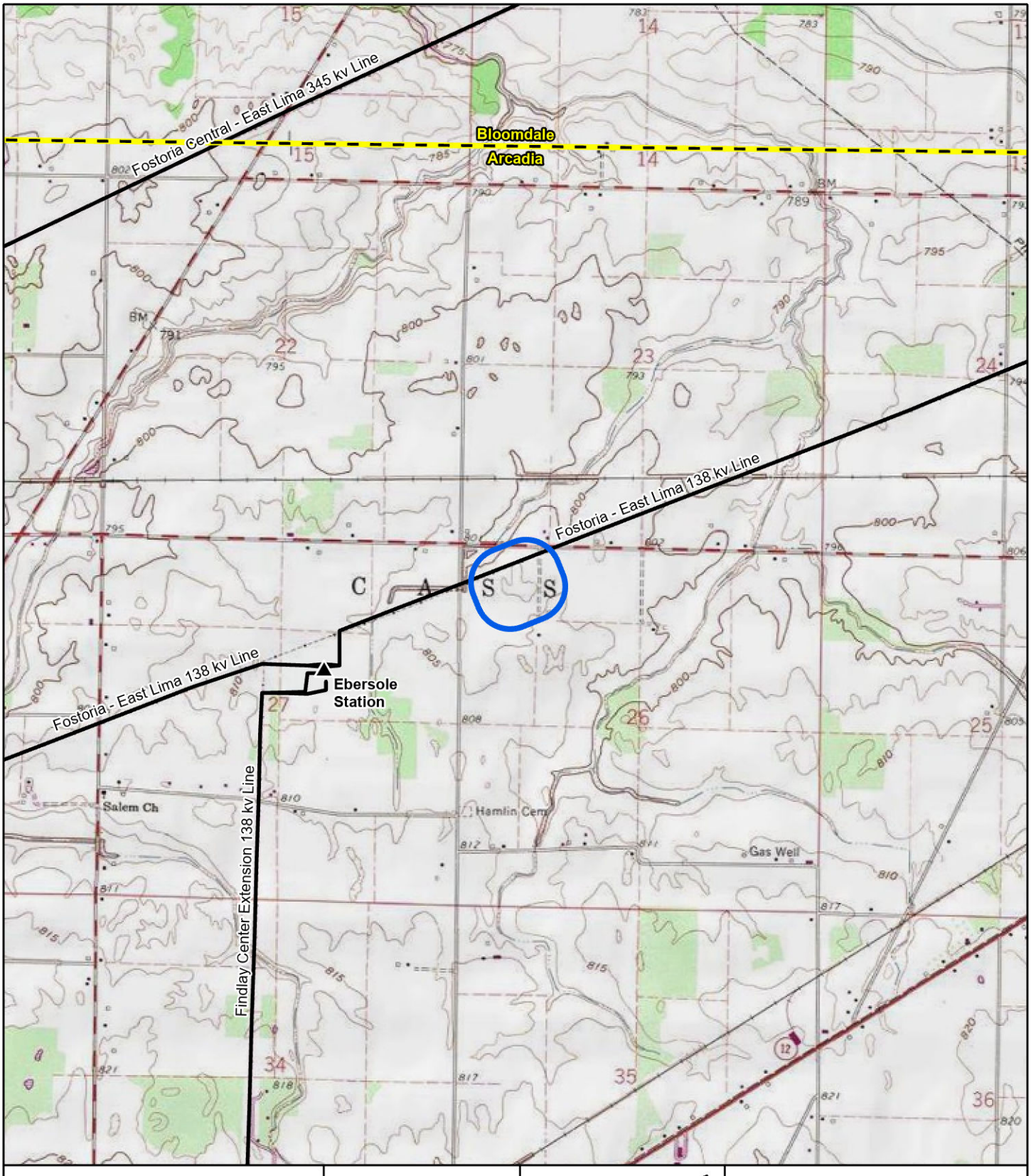
An ecological resources survey and wetland and waterbody delineation study was completed by the Company's consultant for the Project area in January of 2024. The Ecological Survey Report is included in

Appendix D. No wetlands, streams, or open waters are located within the proposed limits of disturbance for construction of the Project.

B(10)(g) 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 Figures



▲ Existing Substation
Existing 138kV Transmission Line
USGS Topographic Lines
Project Area

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

Coordinate System and Datum
NAD 1983 State Plane Ohio North

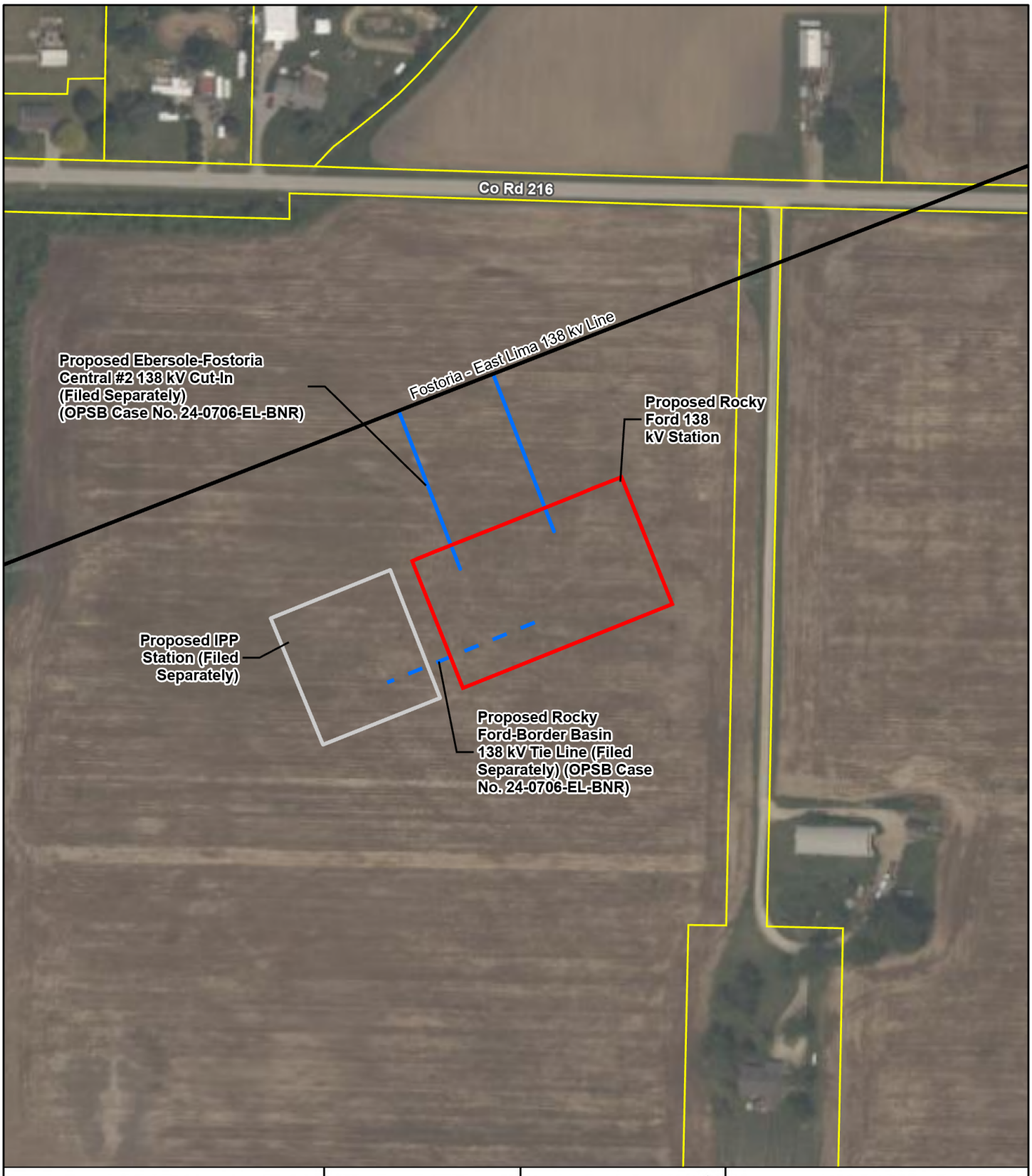
July 05, 2024

FIGURE 1
TOPOGRAPHIC OVERVIEW

AEP OHIO
An AEP Company
BOUNDLESS ENERGY

Rocky Ford 138 kV Station Project

0 1,000 2,000
Feet



Existing 138 kV Transmission Line
Proposed 138 kV Transmission Line Cut-In (Filed Separately)
Proposed 138 kV Generation Tie-Line (Filed Separately)
Proposed Substation Area
Proposed IPP Station (Filed Separately)
Parcel Boundary

Data Sources: AEP, OGRIP, NAIP Imagery, 2021

Coordinate System and Datum
NAD 1983 State Plane Ohio North

September 04, 2024

FIGURE 2
AERIAL MAP

AEP OHIO
An AEP Company
BOUNDLESS ENERGY™

Rocky Ford 138 kV Station Project

0 100 200
Feet

APPENDIX B Long Term Forecast Report

12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Mount Perry Switch - Mount Perry (SCP) 138 kV (s2794 TP2021304)
2	**POINTS OF ORIGIN AND TERMINATION**	Mount Perry Switch - Mount Perry (SCP) INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.05 miles / 100 ft / 1 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2023
6	**CONSTRUCTION:**	2024
7	**CAPITAL INVESTMENT:**	$0.737 M
8	**PLANNED SUBSTATION:**	Mount Perry Switch
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:**	Rio - Lick 138 kV (AC1-188 TP2018191)
2	**POINTS OF ORIGIN AND TERMINATION**	Rio - Lick INTERMEDIATE STATION - Terrapin
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	18.4 miles / 100 ft / 1 circuit (0.1 miles of line work)
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2024 - 2025
6	**CONSTRUCTION:**	2024 - 2025
7	**CAPITAL INVESTMENT:**	$0.5M
8	**PLANNED SUBSTATION:**	Terrapin
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new generation customer
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new generation customer
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Circleville - Nextera 138 kV (AC2-029 TP2019126)
2	**POINTS OF ORIGIN AND TERMINATION**	Circleville - Nextera INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.1 miles / 100 ft / 1 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2023
6	**CONSTRUCTION:**	2023
7	**CAPITAL INVESTMENT:**	$0.514 M
8	**PLANNED SUBSTATION:**	N/A
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new generation customer
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new generation customer
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Ebersole - Fostoria Central 138 kV (AE1-146 TP2020271)
2	**POINTS OF ORIGIN AND TERMINATION**	Ebersole - Fostoria Central INTERMEDIATE STATION - Rocky Ford
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	5.59 miles / 100 ft / 1 circuit (0.1 miles of line work)
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2024
6	**CONSTRUCTION:**	2023 - 2024
7	**CAPITAL INVESTMENT:**	$0.84 M
8	**PLANNED SUBSTATION:**	Rocky Ford
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new generation customer

12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new generation customer
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Rocky Ford - Arcadia 138 kV (AE1-146 TP2020271)
2	**POINTS OF ORIGIN AND TERMINATION**	Rocky Ford - Arcadia INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.1 miles / 100 ft / 1 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2024
6	**CONSTRUCTION:**	2023 - 2024
7	**CAPITAL INVESTMENT:**	$0.44 M
8	**PLANNED SUBSTATION:**	Rocky Ford
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new generation customer
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new generation customer
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Glenco - Dillionvale 69 kV (b3733 TP2022968)
2	**POINTS OF ORIGIN AND TERMINATION**	Glenco - Dillionvale INTERMEDIATE STATION - Colerain, Eastside Switch, Summerhill, & Willow Grove Switch
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	~19.3 miles / 60 ft / 1 circuit (~1.5 miles of rebuild work)
4	**VOLTAGE: DESIGN / OPERATE**	69 kV / 69 kV
5	**APPLICATION FOR CERTIFICATE:**	2025
6	**CONSTRUCTION:**	2026
7	**CAPITAL INVESTMENT:**	$5.1 M
8	**PLANNED SUBSTATION:**	N/A
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	To fix N-1-1 overloads on 4/0 ACSR conductor.
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Increased risk of equipment failure, reliability, and operational issues
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Conesville-Corridor 345KV (s2857 DP22C0010)
2	**POINTS OF ORIGIN AND TERMINATION**	Conesville-Corridor 345KV INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	54 miles / 150 feet / 1 circuit (0.1 miles of modifications)
4	**VOLTAGE: DESIGN / OPERATE**	345 kV / 345 kV
5	**APPLICATION FOR CERTIFICATE:**	2023
6	**CONSTRUCTION:**	2023 - 2024
7	**CAPITAL INVESTMENT:**	$1.97 M
8	**PLANNED SUBSTATION:**	Green Chapel
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new customer
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Unable to serve new customer
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Anguin - Rockhopper NBY4A 138 kV (TP2022723)
2	**POINTS OF ORIGIN AND TERMINATION**	Anguin - Rockhopper NBY4A INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	~0.6 miles / 100 feet / 2 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2023
6	**CONSTRUCTION:**	2023
7	**CAPITAL INVESTMENT:**	$2.165 M
8	**PLANNED SUBSTATION:**	N/A
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new customer

APPENDIX C Agency Correspondence

In reply, refer to
2024-HAN-60219

February 12, 2024

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

RE: Rocky Ford Substation Project in Cass Township, Hancock County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received January 19, 2024, regarding the proposed Rocky Ford Substation Project, Cass Township, Hancock 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 11.1 ha (27.6 ac) Rocky Ford Substation Project in Cass Township, Hancock County, Ohio* by Ryan J. Weller and Scott McIntosh (Weller & Associates, Inc. 2024).

A literature review, visual inspection, and shovel test unit excavation were completed as part of the investigations. There were no previously identified archaeological sites located within the project area. One (1) new archaeological site, Ohio Archaeological Inventory (OAI) #33HK1063 was identified during this survey. This site was not recommended eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with this recommendation and no additional archaeological survey is needed.

A literature review and field survey were conducted as part of the investigations. A total of six (6) resources fifty years of age or older were identified in the Area of Potential Effects (APE). It is Weller's recommendation that none of the resources are eligible for listing in the NRHP. Our office agrees with Weller's recommendations of eligibility.

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

Sincerely,

Catherine Gullett, Project Reviews Coordinator
Resource Protection and Review

RPR Serial No: 1101490

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

February 6, 2024

Project Code: 2024-0033127

Dear Cory Kwolek:

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

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

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

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

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

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

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

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

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

Sincerely,

Scott Hicks
Acting Field Office Supervisor

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

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

March 4, 2024

Cory Kwolek
Environmental Solutions & Innovations, Inc.
4300 Lynn Road, Suite 205
Ravenna, Ohio 44266

Re: 24-0206_AEP Rocky Ford Station

Project: The proposed project involves the construction of a new electrical substation. Minimal tree clearing is proposed within the project area.

Location: The proposed project is located in Cass Township, Hancock 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 entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure

surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

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

Federally Endangered
clubshell (*Pleurobema clava*)
rayed bean (*Villosa fabalis*)

State Endangered
purple lilliput (*Toxolasma lividum*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)
Salamander Mussel (*Simpsonaias ambigua*)

This project must not have an impact on native mussels. This applies to both listed and non-listed species, as all species of mussel are protected in Ohio. Per the Ohio Mussel Survey Protocol (2022), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 5 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. If there is no in-water work proposed, impacts to mussels are not likely.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered fish. The DOW recommends no in-water work in perennial streams from March 15 through

June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.

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

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.

Thank you for affording us the opportunity to comment.

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

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

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

Mike Pettegrew
Environmental Services Administrator

APPENDIX D Ecological Survey Report

AQUATIC RESOURCE DELINEATION REPORT
FOR THE
ROCKY FORD STATION PROJECT
CASS TOWNSHIP
HANCOCK COUNTY, OHIO

8 May 2024

Prepared for:

BLACK & VEATCH

On Behalf of:

American Electric Power
8500 Smith's Mill Road
New Albany, OH 43054

Prepared by:

Environmental Solutions & Innovations, Inc.

4525 Este Avenue
Cincinnati, Ohio 45232
Phone: (513) 451-1777
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Ravenna, OH • Indianapolis, IN • Orlando, FL • Pittsburgh, PA • Teays Valley, WV

TABLE OF CONTENTS

1.0 Introduction

Black & Veatch (B&V) retained Environmental Solutions & Innovations, Inc. (ESI) on behalf of American Electric Power (AEP), LLC to delineate aquatic resources within the proposed Area of Investigation (AOI) for the Rocky Ford Station Project in Hancock County, Ohio (Appendix A, Figures 1, 2, 3 and 4). The aquatic resource delineation was completed 4 January 2024. This report outlines review of published resource materials, existing site conditions, and results of the field investigation.

2.0 Methods

2.1 Desktop Evaluation

Prior to visiting the site, available topographic, aerial, soils, flood, and National Wetlands Inventory (NWI) mapping is reviewed to determine onsite areas that may contain aquatic resources. State stream designations, as well as navigability and other criteria that would determine agency jurisdiction are also reviewed.

2.2 Threatened and Endangered Species

To assist with Endangered Species Act (ESA), Bald and Golden Eagle Protection Act (BGEPA), and Migratory Bird Treaty Act (MBTA) compliance, a project review was requested, and a response was received 6 February 2024 from U.S. Fish and Wildlife Service (USFWS) Ohio Field Office (Appendix B). To identify potential conflicts with state-listed species and appropriately complete Ohio Rapid Assessment Methods (ORAMs), a request was submitted to Ohio Department of Natural Resources (ODNR) and a response was received on 4 March 2024 (Appendix B).

2.3 Aquatic Resource Delineations

Wetland delineation procedures follow the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0 (USACE 2010) and the 1987 Corps of Engineers Wetland Delineation Manual (USACE 1987). The federally regulated Ordinary High Water Mark (OHWM) of streams is delineated using the USACE Regulatory Guidance Letter 05-05 – Guidance on Ordinary High Water Mark Identification. Each stream is categorized regarding its flow regime as perennial, intermittent, or ephemeral, as defined by the USACE. Delineated aquatic resources are classified according to the Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979). Each wetland identified is evaluated consistent with the ORAM, Version 5.0, developed by the Ohio Environmental Protection Agency (OEPA). Streams with drainage areas less than one square mile are evaluated using the field

evaluation manual for Ohio's primary headwater habitat streams (OEPA 2020). Aquatic resource boundaries and sample points are surveyed using a GPS with sub-meter accuracy.

3.0 Results

3.1 Desktop Evaluation

3.1.1 Topography and Drainage

The project appears on the Acadia, Ohio U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Appendix A, Figure 1). No flood hazards were identified within the AOI and the Flood Insurance Rate Map (FIRMette) panel depicting the Project area is provided in Appendix A, Figure 5. The AOI consists of flat topography with elevations ranging from approximately 796 feet to 806 feet (Appendix A, Figures 2, 3 and 4). The site drains to Rocky Ford.

3.1.2 Soil Survey

Three hydric soil series are mapped by the Natural Resources Conservation Service (NRCS). The NRCS soil map and hydric soils list is provided in Appendix C.

3.1.3 National Wetlands Inventory

One NWI-mapped wetland (R4SBC) was identified within the AOI and coincides with perennial stream 1-001 (Appendix D). An additional upland sample point was taken within the NWI-mapped feature and no wetland criteria were met. Note that NWI maps are derived from aerial photo interpretation and are suitable for general planning purposes only; they typically do not show all the wetland or watercourse resources within any given area.

3.1.4 Aerial Imagery

Aerial mapping from 1985 through 2023 shows the site as dominated by agricultural fields. Aerial representation of the site is provided in Appendix A, Figures 2, 3 and 4.

3.2 Threatened and Endangered Species

The project is within range of the Indiana bat (*Myotis sodalis*), a federally and state endangered species, the northern long-eared bat (*Myotis septentrionalis*), a federally state endangered species, the federally proposed endangered and state endangered tricolored bats (*Perimyotis subflavus*), and the state endangered little brown (*Myotis lucifugus*). During spring and summer (1 April through 30 September), bats predominately roost in trees behind loose, exfoliation bark, in crevices and cavities, or in the leaves. However, the species are also dependent on forest structure surrounding roost trees. If

trees are present within the project area and require removal, the ODNR-Division of Wildlife (DOW) recommends cutting from 1 October through 31 March, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, and trees with diameter at breast height (DBH) ≥ 20 inches, if possible. If trees in the project area require removal during summer, the ODNR-DOW recommends completing a mist net or acoustic survey from 1 June through 15 August, prior to any cutting. No bat portals or hibernacula were observed during field surveys

The project is within range of the northern harrier (*Circus hudsonius*), a state endangered bird. Although a common migrant and winter species, nesters are much rarer, but occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. Habitat potentially impacted by construction should be avoided during the species' nesting period of 15 April through 31 July (Appendix B).

The project is within the range of the western banded killifish (*Fundulus diaphanous menona)*, a state endangered species. The ODNR-DOW recommends no in-water work in perennial streams from 15 March through 30 June to reduce impacts to indigenous aquatic species and their habitats. If no in-water work is proposed in a perennial stream, the project is unlikely to impact western banded killifish or other aquatic species (Appendix B).

The project is within the range of several state- and federally threatened and endangered mussels. Based on location, and a lack of proposed in-water work in a perennial stream, the current project is unlikely to impact aquatic species listed (Appendix B).

A summary table of state and federally threatened, and endangered species potentially occurring within the AOI is provided in Appendix E.

3.3 Aquatic Resource Delineations

Field investigations confirmed aerial imagery and identified one stream segment and two ditches within the AOI (Appendix F). Two representative upland sample points were taken to characterize the area. Representative photographs of upland sample points are provided in Appendix G. The aquatic resource delineation map depicting upland sample point locations is provided in Appendix A, Figure 3. Field data sheets for upland sample points are provided in Appendix H.

4.0 Conclusion

Results of field investigations completed by ESI on 4 January 2024 identified and delineated one potentially jurisdictional perennial stream segment and two non-

jurisdictional ditches within the AOI. No wetlands were identified during the survey. Two representative upland sample points were taken to characterize the area.

ODNR-DOW and USFWS recommend seasonal tree clearing to avoid impacts to state and federally listed bat species. If construction cannot adhere to seasonal tree clearing dates, additional coordination with the agencies and/or surveys may be needed. To reduce impacts to indigenous aquatic species and habitat, the ODNR-DOW recommends avoiding in-water work in perennial streams from 15 April to 30 June. Furthermore, if in-stream work is anticipated in streams considered suitable for freshwater mussels, the ODNR-DOW recommends a mussel survey in the project area completed by a professional malacologist.

5.0 Literature Cited

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. FWSOBS 79/31, December 1979. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 79 pp.

OEPA. 2020. Field methods for evaluating primary headwater streams in Ohio. Version 4.1. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio. 130 pp.

USACE. 1987. Corps of Engineers Wetlands Delineation Manual. Final Report. Wetlands Research Program Technical Report Y-87-1 (on-line edition), Waterways Experiment Station, Environmental Laboratory, Vicksburg, Mississippi. 143 pp.

USACE. 2010. Regional supplement to the Corps of Engineers wetland delineation manual: Midwest Region (Version 2.0). ERDC/EL TR-10-16, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi. 154 pp.

APPENDIX A
FIGURES

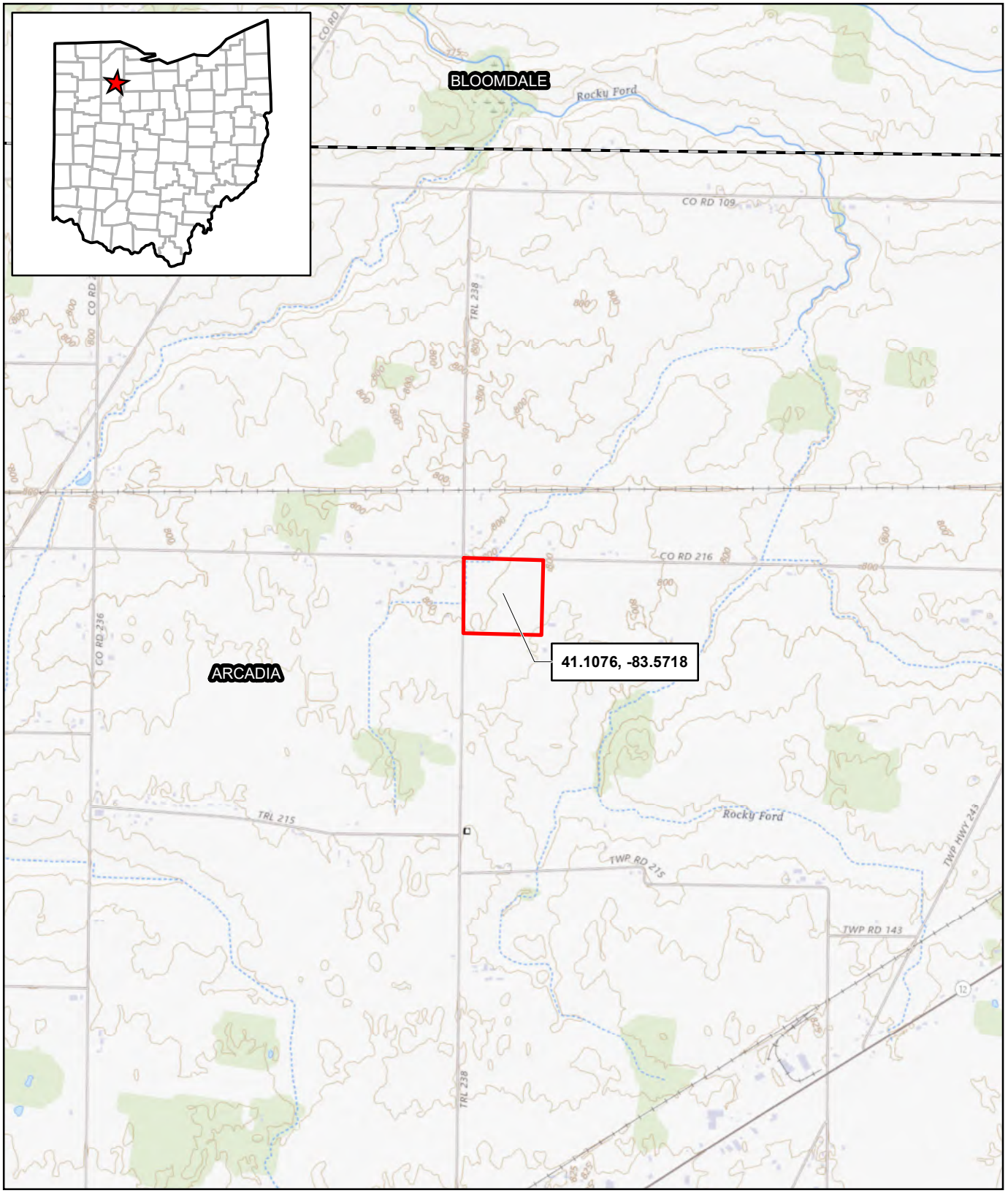

Figure 1. Location of the AEP Rocky Ford Project in Hancock County, Ohio.

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Project No. 2209

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Base Map: USGS Topographic Map

ESI ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.

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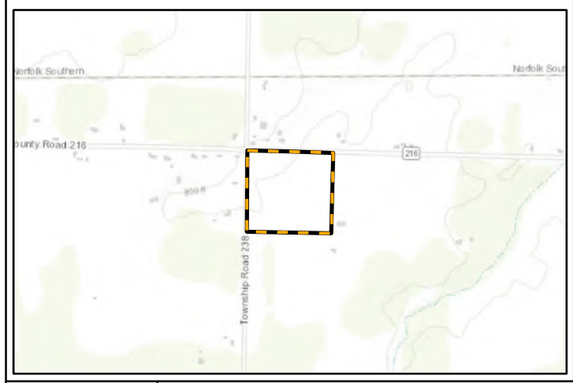
Figure 2. Desktop Data on the Rocky Ford Station Project in Hancock County, Ohio.

National Hydrography Dataset (NHD) Stream
Soils
Area of Investigation (AOI)

National Wetland Inventory (NWI)

Freshwater Pond
Riverine



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Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Project No. 2209

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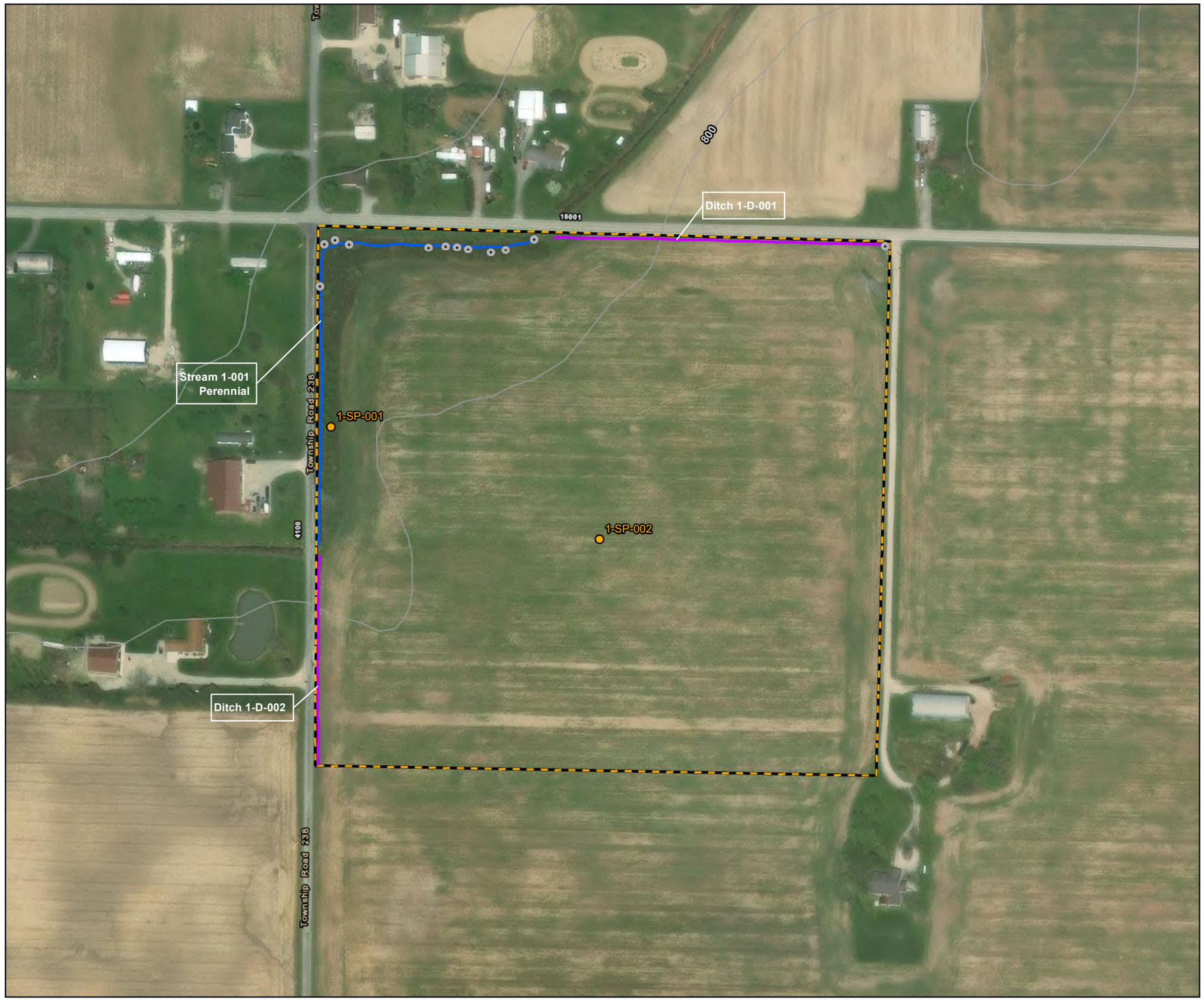
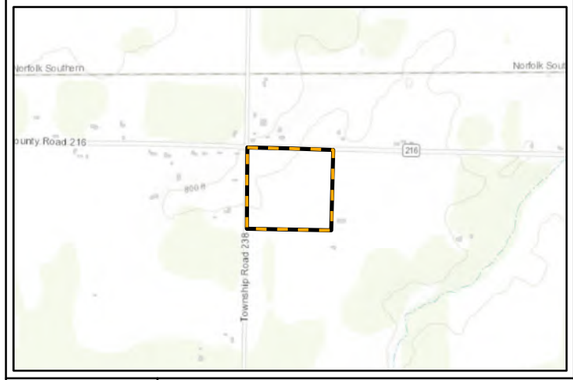
Figure 3. Field Delineated Data on the Rocky Ford Station Project in Hancock County, Ohio.



- Culvert Location
- Field-Delineated Ditch
- Field-Delineated Stream
- Area of Investigation (AOI)

Sample Point

- Upland



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Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Project No. 2209

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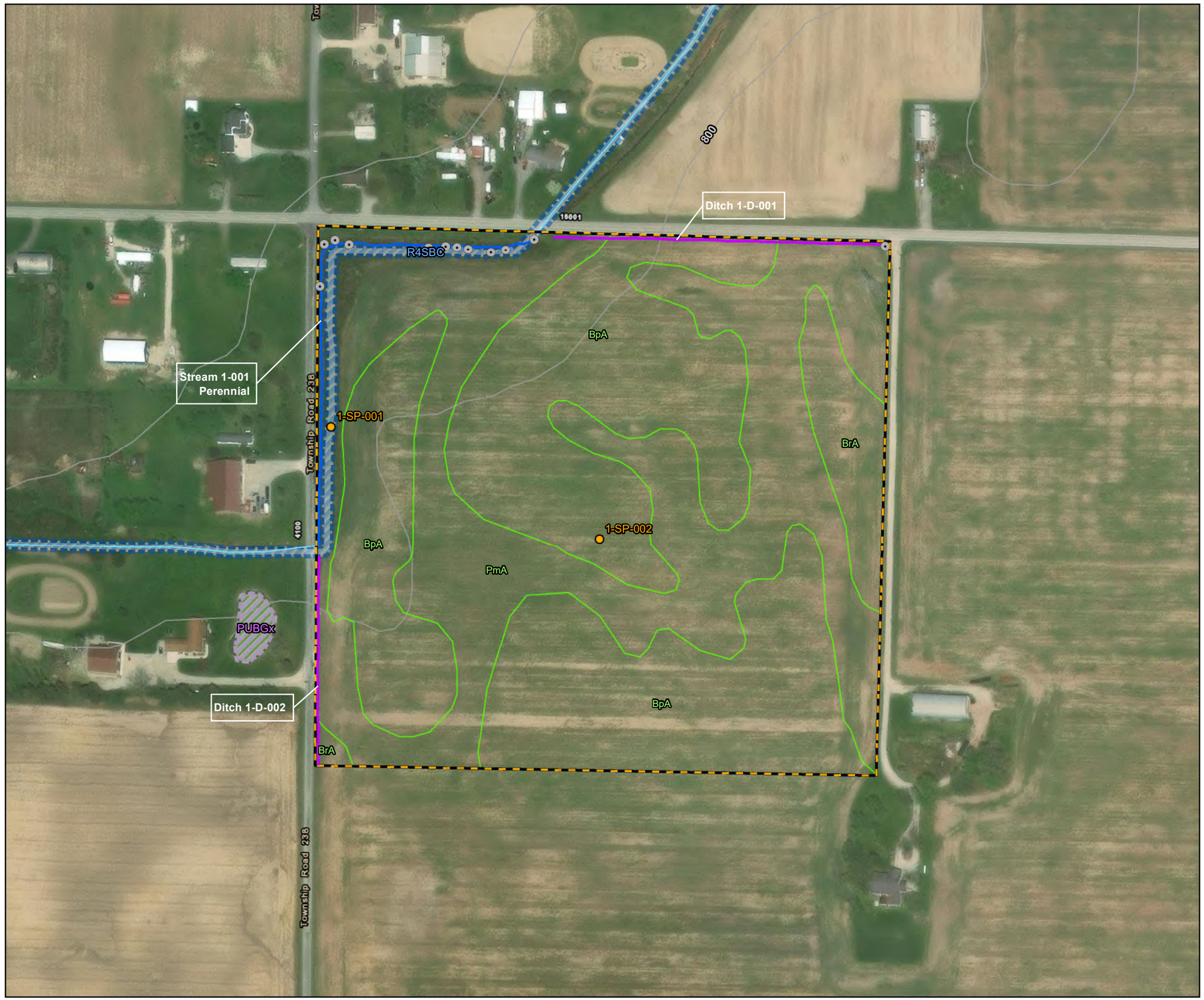


Figure 4. Aquatic Resource Delineation Plan on the Rocky Ford Project in Hancock County, Ohio.

ESI Field Data

- Culvert Location
- Field-Delineated Ditch
- Field-Delineated Stream
- Area of Investigation (AOI)

Sample Point

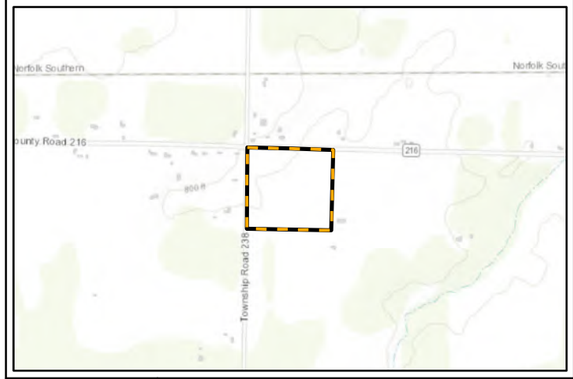
- Upland

Desktop Data

- National Hydrography Dataset (NHD) Stream
- Soils

National Wetland Inventory (NWI)

- Freshwater Pond
- Riverine



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Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

ESI

ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.

Project No. 2209

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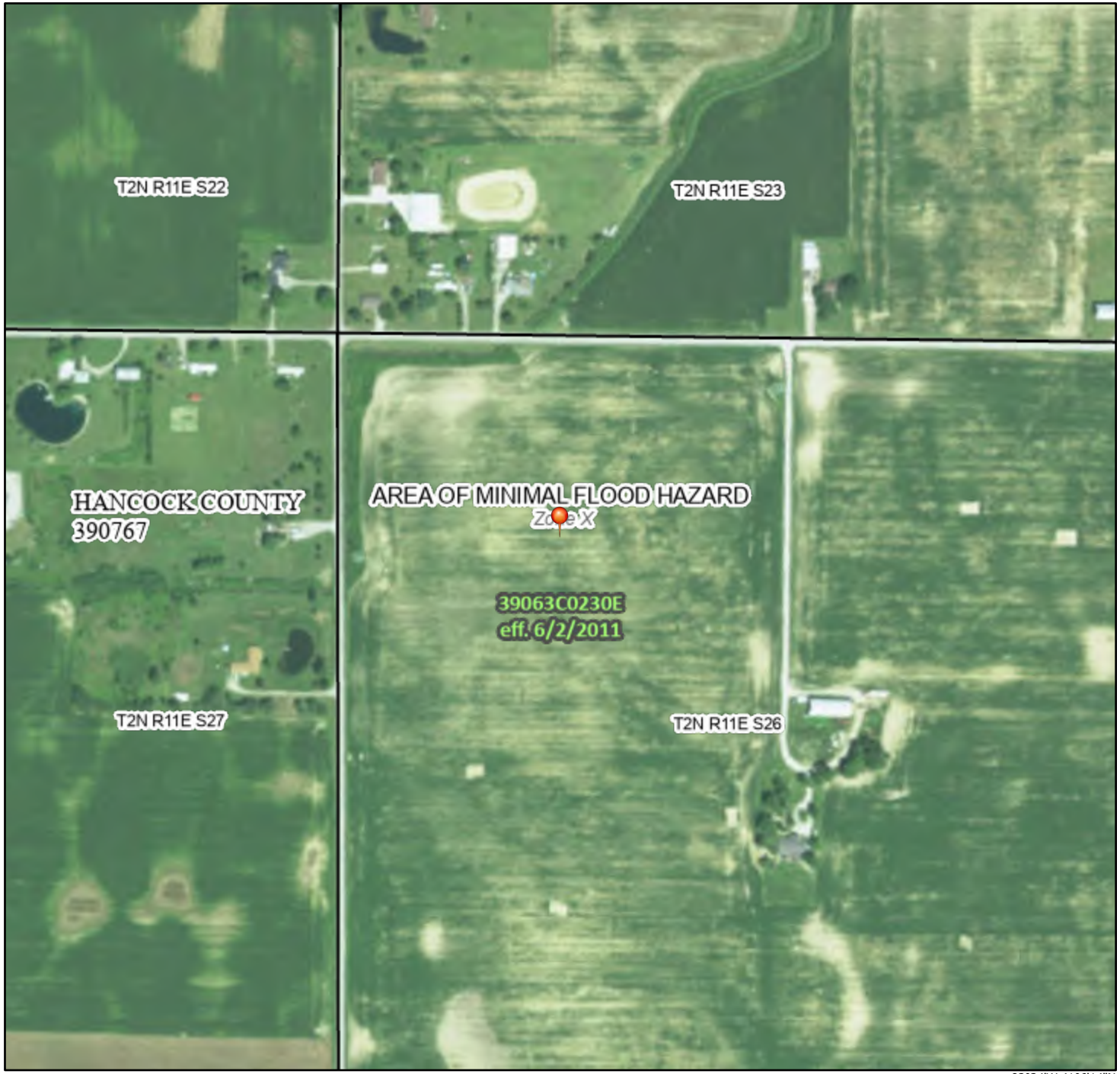
Figure 5. Flood Insurance Rate Map (FIRMette) panel

National Flood Hazard Layer FIRMette

FEMA

83°34'37"W 41°6'41"N



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83°34'W 41°6'14"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/26/2024 at 11:23 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX B
AGENCY CORRESPONDENCE

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

February 6, 2024

Project Code: 2024-0033127

Dear Cory Kwolek:

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

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

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

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

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

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

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

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

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

Sincerely,

Scott Hicks
Acting Field Office Supervisor

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

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

March 4, 2024

Cory Kwolek
Environmental Solutions & Innovations, Inc.
4300 Lynn Road, Suite 205
Ravenna, Ohio 44266

Re: 24-0206_AEP Rocky Ford Station

Project: The proposed project involves the construction of a new electrical substation. Minimal tree clearing is proposed within the project area.

Location: The proposed project is located in Cass Township, Hancock 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 entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure

surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

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

Federally Endangered
clubshell (*Pleurobema clava*)
rayed bean (*Villosa fabalis*)

State Endangered
purple lilliput (*Toxolasma lividum*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)
Salamander Mussel (*Simpsonaias ambigua*)

This project must not have an impact on native mussels. This applies to both listed and non-listed species, as all species of mussel are protected in Ohio. Per the Ohio Mussel Survey Protocol (2022), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 5 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. If there is no in-water work proposed, impacts to mussels are not likely.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered fish. The DOW recommends no in-water work in perennial streams from March 15 through

June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.

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

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.

Thank you for affording us the opportunity to comment.

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

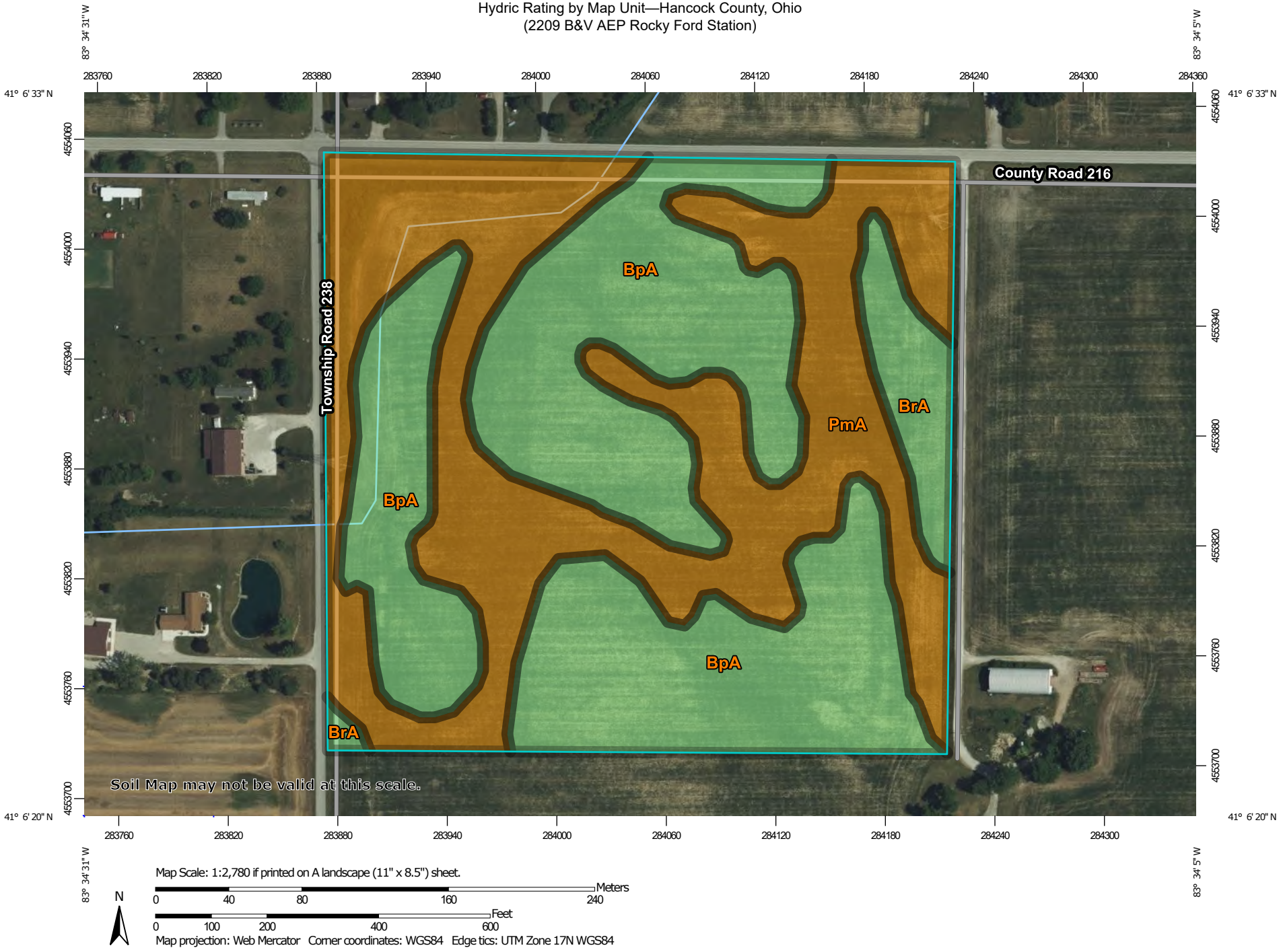
The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator

APPENDIX C
SOIL REPORT

Hydric Rating by Map Unit—Hancock County, Ohio
(2209 B&V AEP Rocky Ford Station)



Map Scale: 1:2,780 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hancock County, Ohio
Survey Area Data: Version 24, Sep 6, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 5, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BpA	Blount-Houcktown complex, 0 to 3 percent slopes	5	14.1	51.1%
BrA	Blount-Jenera complex, 0 to 3 percent slopes	5	1.4	5.1%
PmA	Pewamo silty clay loam, 0 to 1 percent slopes	91	12.1	43.8%
Totals for Area of Interest			**27.6**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

APPENDIX D
NWI TABLE

Rocky Ford Station Project **5/8/2024**
NWI TABLE

NWI Code	NWI Description	Figure 2	Related Field Inventoried Resource (Wetland ID / Stream ID)	Comments
R4SBC	Seanonally flowing riverine channels.	Map 1 of 1	1-001	Stream 1-001 exists within the project survey area. NWI boundary continues outside of survey area.

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

APPENDIX E
RTE TABLE

RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Summary of Potential Ohio State-Listed and Federally Listed Species within the Rocky Ford Station Project Area, Hancock County, Ohio

Common/Scientific Name	Federal Listing[1]	State Listing[1]	Habitat Preference	Habitat Observed in Project Area?	Aviodance Dates	Agency Comment[2]	Potential Impacts
Mammals							
Indiana bat/*Myotis sodalis*	E	E	Suitable summer habitat for the Indiana bat consists of a wide variety of forested/wooded habitats where they roost, forage, and breed. Habitats potentially include adjacent and interspersed non-forested habitats such as emergent wetlands, agricultural fields, woodlots, fallow fields, and pastures.	Yes	1 April through 30 September	USFWS and ODNR-DOW recommend conserving trees exhibiting loose, shaggy bark and/or crevices, holes, or cavities. Tree cutting is recommended between 1 October and 31 March. If suitable trees require removal during summer months, ODNR-DOW recommends completing a mist net or acoustic survey between 1 June and 15 August, prior to any cutting. If no tree removal is proposed, the project is unlikely to impact Indiana bat. A desktop assessment for features potentially suitable as bat hibernacula was conducted and portal searches were completed within the Project's AOI. No features potentially suitable for hibernating bat use were documented.	Yes
Northern long-eared bat/*Myotis septentrionalis*	E	E	Suitable summer habitat for the northern long-eared bat consists of a wide variety of forested/wooded habitats where they roost, forage, and breed. Habitats potentially include adjacent and interspersed non-forested habitats such as emergent wetlands, agricultural fields, woodlots, fallow fields, and pastures.	Yes	1 April through 30 September	Same as above for Indiana bat.	Yes
Tricolored bat/*Perimyotis subflavus*	PE	E	During spring and summer (1 April through 30 September), the species predominantely roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, the species is also dependent on forest structure surrounding roost trees.	Yes	1 April through 30 September	Same as above for Indiana bat.	Yes
Little brown bat/*Myotis lucifugus*	N/A	E	During spring and summer (1 April through 30 September), the species predominantely roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, the species is also dependent on forest structure surrounding roost trees.	Yes	1 April through 30 September	Same as above for Indiana bat.	Yes
Freshwater Mussels							
Rayed bean/*Villosa fabalis*	E	E	The species is found in freshwater streams as defined in the Ohio Mussel Survey Protocol (2023)	No	Year round	Based on location, and a lack of proposed in-water work in a perennial stream, the current project is unlikely to impact aquatic species listed.	No
Clubshell/*Pleurobema clava*	E	E	The species is found in freshwater streams as defined in the Ohio Mussel Survey Protocol (2023)	No	Year round	Same comment as above for rayed bean.	No
Purple lilliput/*Toxolasma lividum*	E	N/A	The species is found in freshwater streams as defined in the Ohio Mussel Survey Protocol (2023)	No	Year round	Same comment as above for rayed bean.	No
Pondhorn/*Uniomerus tetralasmus*	N/A	T	The species is found in freshwater streams as defined in the Ohio Mussel Survey Protocol (2023)	No	Year round	Same comment as above for rayed bean.	No
Salamander mussel/*Simpsonaias ambigua*	N/A	T	The species is found in freshwater streams as defined in the Ohio Mussel Survey Protocol (2023)	No	Year round	Same comment as above for rayed bean.	No
Fish							
Western banded killfish/*Fundulus diaphanus menona*	N/A	E	The species is found in perennial streams, especially very slow moving heavily vegetated streams, oxbows, or marshes	No	15 March through 30 June	Due to location, and no in-water work proposed in a perennial stream, this project is not likely to impact this species	No
Bird							
Northern harrier/*Circus hudsonius*	N/A	E	Marshes, fields, prairies. Found in many kinds of open terrain, both wet and dry habitats, offering good ground cover. Often found in marshes, especially in nesting season, but sometimes nests in dry open fields.	No	15 April through 31 July	The project location is currently within land that is farmed year-round. As such, this is not currently suitable habitat for this species and no time-of-year restrictions apply. However, in the event farming is discontinued and the field turns fallow, additional consultations with ODNR would likely be necessary to confirm any time-of -year restrictions or lack thereof.	No

[1]E=Endangered; T=Threatened; PE=Proposed Endangered
[2]Information is based on literature review information response from ODNR-DOW and USFWS

APPENDIX F
STREAM AND DITCHES TABLE

Rocky Ford Station Project **5/8/2024**

STREAM AND DITCHES TABLE

Stream/Ditch ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation		
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation
1-001	41.10882	-83.57381	Perennial	Unnamed Tributary	1015	10	7	HHEI	55	WWH
1-D-001	41.10894	-83.57095	Ditch	Unnamed Tributary	661	4	N/A	N/A	N/A	N/A
1-D-002	41.10662	-83.57381	Ditch	Unnamed Tributary	416	2	N/A	N/A	N/A	N/A
				Total:	**2,092**					

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

APPENDIX G
SITE PHOTOS

Environmental Solutions & Innovations
Photo Documentation

Client/Site Name:
American Electric Power (AEP)
Rocky Ford Station Project

Site Location:
Hancock County, OH

Project #:
2209

Upland 1-SP-001 (North)

Upland 1-SP-001 (East)

Upland 1-SP-001 (South)

Upland 1-SP-001 (West)

Environmental Solutions & Innovations
Photo Documentation

Client/Site Name:
American Electric Power (AEP)
Rocky Ford Station Project

Site Location:
Hancock County, OH

Project #:
2209

Upland 1-SP-001 (Soil)

Upland 1-SP-002 (North)

Upland 1-SP-002 (East)

Upland 1-SP-002 (South)

Environmental Solutions & Innovations
Photo Documentation

Client/Site Name:
American Electric Power (AEP)
Rocky Ford Station Project

Site Location:
Hancock County, OH

Project #:
2209

Upland 1-SP-002 (West)

Upland 1-SP-002 (Soil)

Stream 1-001 (Upstream)

Stream 1-001 (Downstream)

Environmental Solutions & Innovations
Photo Documentation

Client/Site Name:
American Electric Power (AEP)
Rocky Ford Station Project

Site Location:
Hancock County, OH

Project #:
2209

Stream 1-001 (Substrate)

Ditch 1-D-001

Ditch 1-D-001

Ditch 1-D-002

Environmental Solutions & Innovations
Photo Documentation

Client/Site Name:
American Electric Power (AEP)
Rocky Ford Station Project

Site Location:
Hancock County, OH

Project #:
2209

Ditch 1-D-002

APPENDIX H
UPLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 2209 AEP B&V Rocky Ford Project City/County: Hancock County Sampling Date: 2024-01-04

Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-001

Investigator(s): C. Kwolek Section, Township, Range: S26 T2N R11E

Landform (hillslope, terrace, etc.): Berm Local relief (concave, convex, none): Convex

Slope (%): 2 Lat: 41.107899 Long: -83.573861 Datum: WGS 84

Soil Map Unit Name: PmA - Pewamo silty clay loam, 0 to 1 percent slopes NWI classification: N/A

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

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

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

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

Remarks:

Upland sample point taken to characterize upland conditions. Area consists of hydrophytic trees and sapling, however the area is bermed up from the stream and adjacent to agriculture. No hydric soil or hydrology is present.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharinum	55	✔	FACW
2. Acer negundo	30	✔	FAC
3.			
4.			
5.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Cornus alba	35	✔	FACW
2.			
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum ericoides	20	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
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: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	30	x 3 =	90
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	140 (A)		350 (B)

Prevalence Index = B/A = 2.50

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 _____

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

Hydrophytic vegetation present

SOIL

Sampling Point: 1-SP-001

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 20	10YR 4/3	100					Clay	
-								
-								
-								
-								
-								
-								

[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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

No hydric soil present

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 ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

No wetland hydrology present

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 2209 AEP B&V Rocky Ford Project City/County: Hancock County Sampling Date: 2024-01-04

Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-002

Investigator(s): C. Kwolek Section, Township, Range: S26 T2N R11E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): 0 Lat: 41.107305 Long: -83.571788 Datum: WGS 84

Soil Map Unit Name: BpA - Blount-Houcktown complex, 0 to 3 percent slopes NWI classification: N/A

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

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

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

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

Remarks:

Upland sample point taken to characterize upland conditions. Sample taken within planted agriculture field. No wetland criteria present.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Triticum aestivum	40	✔	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
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: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0

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 ✔

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

No hydrophytic vegetation present

SOIL

Sampling Point: 1-SP-002

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 20	10YR 4/4	100					Clay	
-								
-								
-								
-								
-								
-								

[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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

No hydric soil present

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 ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

No wetland hydrology present

Perennial 1-001

Headwater Habitat Evaluation Index Field Form

Ohio Environmental Protection Agency

HHEI Score (sum of metrics 1+2+3): 55

SITE NAME/LOCATION 2209 AEP B+V Rocky Ford

SITE NUMBER 1-001 RIVER BASIN Blanchard RIVER CODE — DRAINAGE AREA (mi²) 0.62

LENGTH OF STREAM REACH (ft) 200 LAT 41.108912 LONG -83.571562 RIVER MILE —

DATE 1/4/23 SCORER C. Kwolek COMMENTS N/A

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for instructions

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

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

TYPE		PERCENT	TYPE		PERCENT
[ ]	BLDR SLABS [16 pts]		[X]	SILT [3 pt]	90%
[ ]	BOULDER (>256 mm) [16 pts]		[ ]	LEAF PACK/WOODY DEBRIS [3 pts]	
[ ]	BEDROCK [16 pts]		[ ]	FINE DETRITUS [3 pts]	
[ ]	COBBLE (65-256 mm) [12 pts]		[ ]	CLAY or HARDPAN [0 pt]	
[ ]	GRAVEL (2-64 mm) [9 pts]		[ ]	MUCK [0 pts]	
[X]	SAND (<2 mm) [6 pts]	10%	[ ]	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 0%

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: (A) 9 TOTAL NUMBER OF SUBSTRATE TYPES: (B) 2

HHEI Metric Points — Substrate Max = 40: 11 (A + B)

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

[ ]	> 30 centimeters [30 pts]	[ ]	5 cm - 10 cm [15 pts]
[ ]	> 22.5 - 30 cm [30 pts]	[ ]	< 5 cm [5pts]
[X]	> 10 - 22.5 cm [25 pts]	[ ]	NO WATER OR MOIST CHANNEL [0pts]

COMMENTS N/A MAXIMUM POOL DEPTH (centimeters): 20

Pool Depth Max = 30: 25

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

[ ]	> 4.0 meters (> 13') [30 pts]	[ ]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
[ ]	> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	[ ]	≤ 1.0 m (≤ 3' 3") [5 pts]
[X]	> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]		

COMMENTS N/A AVERAGE BANKFULL WIDTH (meters): 2.5

Bankfull Width Max=30: 20

This information must also be completed

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

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
[ ]	[ ]	Wide >10m	[ ]	[ ]	Mature Forest, Wetland	[ ]	[ ]	Conservation Tillage
[ ]	[ ]	Moderate 5-10m	[X]	[ ]	Immature Forest, Shrub or Old Field	[ ]	[X]	Urban or Industrial
[X]	[X]	Narrow <5m	[ ]	[ ]	Residential, Park, New Field	[ ]	[ ]	Open Pasture, Row Crop
[ ]	[ ]	None	[ ]	[ ]	Fenced Pasture	[ ]	[ ]	Mining or Construction

COMMENTS N/A

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

[X]	Stream Flowing	[ ]	Moist Channel, isolated pools, no flow (intermittent)
[ ]	Subsurface flow with isolated pools (interstitial)	[ ]	Dry channel, no water (ephemeral)

COMMENTS N/A

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

[ ]	None	[ ]	1.0	[X]	2.0	[ ]	3.0
[ ]	0.5	[ ]	1.5	[ ]	2.5	[ ]	>3

STREAM GRADIENT ESTIMATE

[X] Flat (<0.5 m/km) [ ] Flat to Moderate [ ] Moderate (2 m/km) [ ] Moderate to Severe [ ] Severe (10 m/km)

Perennial 1-001

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

QHEI PERFORMED? ☐Yes ☒No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: - Distance from Evaluated Stream -

☐ CWH Name: - Distance from Evaluated Stream - UNT

☐ EWH Name: - Distance from Evaluated Stream -

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

USGS Quadrangle Name: Arcadia NRCS Soil Map Page: - NRCS Soil Map Stream Order: -

County: Hancock Township/City: Cass / Arcadia

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: Unknown Quantity: -

Photo-documentation Notes: Upstream, Downstream, Substrate

Elevated Turbidity? (Y/N): N Canopy (% open): 70%

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): N/A

Field Measures: Temp (°C) - Dissolved Oxygen (mg/l) - pH (S.U.) - Conductivity (umhos/cm) -

Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____

Additional comments/description of pollution impacts: Agriculture

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

Salamanders Observed? (Y/N) N Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

Comments Regarding Biology: N/A

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

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