Construction Notice Lammer-Powell Creek Solar 138 kV Transmission Line and East Leipsic-Richland 138 kV Cut-in Project

An AEP Company

PUCO Case No. 24-0334-EL-BNR

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

Submitted by:
Ohio Power Company

April 24, 2024

Construction Notice

Ohio Power Company
Lammer-Powell Creek Solar 138 kV Transmission Line and
East Leipsic-Richland 138 kV Cut-in Project

4906-6-05

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

4906-6-5(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 Lammer-Powell Creek Solar 138 kV Transmission Line and East Leipsic-Richland 138 kV Cut-in Project (the "Project") in the Village of Miller City, Putnam County Ohio. The Project will provide a 138 kV interconnection to the Powell Creek Solar facility (OPSB Case Number 20-1084-EL-BGN), proposed by Aurora Solar LLC (Powell Creek Solar), an Independent Power Producer (IPP). The Company will construct one span of 138 kV transmission line totaling less than 0.1 mile from the IPP's Lammer Station to a Point of Interconnection (POI) with the IPP's 138 kV transmission line. The Company will also loop the existing East Lima-Richland 138 kV transmission line (East Leipsic-Richland 138 kV circuit) through Lammer Station by extending two, single circuit 138 kV lines for less than 0.2 mile each. The location of the Project is shown on Figure 1 and Figure 2 in Appendix A.

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

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

The project has been assigned PUCO Case No. 24-0334-EL-BNR.

B(2) Statement of Need

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

Aurora Solar LLC plans to build a 150 MW solar generating facility in Putnam County, Ohio. As part of the AE2-072 IPP Interconnection Service Agreement, the Company must connect transmission assets to the proposed solar facility. To address the IPP's plans, the Company will cut into the East Lima-Richland 138 kV transmission line (East Leipsic-Richland 138 kV circuit) to install two, single circuit 138 kV lines into the IPP's Lammer Station and construct a short, less than 0.1 mile 138 kV span out of the Lammer Station to connect to the IPP's 138 kV transmission line.

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 has been assigned a PJM upgrade number of n8177.2. The Project was included in the Company's 2024 Long Term Forecast Report on pages 101-102 (see Appendix B).

B(3) Project Location

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

The location of the Project in relation to existing transmission is shown in Figure 1 of Appendix A.

B(4) Alternatives Considered

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

The Project is located between the IPP's solar facility and the existing East Lima-Richland 138 kV transmission line (East Leipsic-Richland 138 kV circuit). Based on the IPP's approved solar farm and existing facilities in the area, the proposed location is the most suitable location for the Project. Other alternatives would require impacting additional neighboring properties and would add additional transmission length to the Project without any additional benefit. The proposed Project is not anticipated to impact wetlands, streams, or any known cultural resource areas eligible for the National Register of Historic Places (NRHP). Therefore, this alternative represents the most suitable location and is the most appropriate solution for meeting the Company 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 Project is located entirely within property owned by the IPP with easements to be acquired for the Project. No additional property owners or tenants are affected. The Company maintains a website (http://aeptransmission.com/ohio/) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library in each political subdivision affected by this Project.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in August 2024, and the anticipated in-service date will be November 2024.

B(7) Area Map

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

Figure 1 in Appendix A provides the proposed Project area on a map of 1:24,000-scale (1 inch equals 2,000 feet), showing the Project on the United States Geological Survey (USGS) 7.5-minute topographic map of the Ottawa, Ohio quadrangle. Figure 2 in Appendix A shows the Project area on recent aerial photography, dated 2020, as provided by ESRI's World Imagery at a scale of 1:6,000 scale (1 inch equals 500 feet).

To visit the Project site from Columbus, Ohio, take I-70 West toward Dayton. At Exist 93, merge onto I-270 North toward Cleveland. Continue for 9.0 miles and take Exit 17B to merge onto OH-161 West/U.S. 33 West toward Marysville. Follow U.S. 33 West for 46.5 miles and exit onto OH-117 West toward Huntsville/Lima. Merge onto OH-117 West and continue for 26.5 miles. Turn left onto OH-117 West/OH-309 West. After 0.2 mile, turn right to merge onto I-75 North toward Toledo. Continue on I-75 North for 4.4 miles and take Exit 130 for Bluelick Road. At the end of the exit ramp, turn left onto East Bluelick Road and continue for 0.5 mile. Turn right onto Slabtown Road for 7.5 miles. Turn left onto Begg Road. Continue for 1.1 miles and then turn right onto State Route 65 North. Stay on State Route 65 North for 9.1 miles before turning left onto OH-15 West/North Defiance Street. Continue for 3.2 miles before turning right onto County Highway 12. After 3.1 miles, the project location will be on the left at latitude 41.100008 longitude -84.094483.

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 entirely within property owned by the IPP with easements to be acquired for the Project. A list of properties required for the Project is provided in the table below.

Property Parcel Number	Agreement Type	Easement/ Option Obtained (Yes/No)
670100900000	New Easement	No

B(9) Technical Features

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

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

The transmission line construction is estimated to include the following:

Lammer-Powell Creek 138 kV Transmission Line

Voltage:	138 kV
Conductors:	(3) 1590 KCM ACSR 54/19 (Falcon)
Static Wire:	(2) 72 ct. OPGW
Insulators:	Polymer
ROW Width:	100 feet
Structure Type:	(1) single circuit, monopole deadend, custom concrete pier foundation

East Leipsic-Richland 138 kV Cut-in

Voltage:	138 kV
Conductors:	(3) 636 KCM ACSR 26/7 (Grosbeak)
Static Wire:	(1) 7#10 Alumoweld
Insulators:	Polymer
ROW Width:	100 feet
Structure Type:	(2) single circuit, monopole deadend, guyed direct embed

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately $3,265,000 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.

Aerial photography of the Project vicinity is provided as Figure 2 in Appendix A. The Project is located in the Village of Miller City, Putnam County, Ohio. Land use in the Project area consists of agricultural fields with limited residential development in the vicinity. The Powell Creek Solar facility is located within much of the surrounding vicinity. No tree clearing is anticipated for the Project.

B(10)(b) Agricultural Land Information

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

The Project, adjacent areas, and much of the surrounding vicinity are located on former agricultural land. Much of this area will be used for the approved IPP solar generation facility. On April 2, 2024, the Putnam County Auditor indicated that the Project parcel was split from a larger parcel registered as Agricultural District Land. The parcel encompassed by the Project is registered as Agricultural District Land and expires at the end of 2024.

B(10)(c) Archaeological and Cultural Resources

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

The Company's consultant completed a Cultural Resource Management Investigation of the Project Area. The site and resources identified in the investigation were recommended by the consultant to not be eligible for listing on the National Register of Historic Places ("NRHP"). No further investigation was considered to be necessary by the consultant. The Ohio Historic Preservation Office ("SHPO") agreed with the consultant's recommendations, that the Project will not impact any cultural resources eligible for listing on the NRHP, and that no additional coordination is necessary prior to construction. A copy of the April 12, 2024 concurrence letter from SHPO is provided in Appendix C.

B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A Notice of Intent will be filed with the Ohio Environmental Protection Agency for authorization of construction stormwater discharges under General Permit OHC0000006. The Company will implement and maintain best management practices as outlined in the Project-specific Storm Water Pollution Prevention Plan ("SWPPP") to minimize erosion control sediment to protect surface water quality during storm events.

A wetland and stream delineation was conducted for the Project area (see Appendix D). No wetlands or streams were identified within the survey area. Therefore, the Project will not require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or a Section 401 Water Quality Certification from the OEPA.

The FEMA Flood Insurance Rate Map was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project area (specifically, map number **39137C0155D**). Based on this mapping, no mapped FEMA floodplains are located in the Project area. Therefore, no floodplain permit will be required for this Project.

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

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

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

As part of the ecological study completed for the Project, a coordination letter was submitted to the USFWS Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. The March 7, 2024 response letter from the USFWS (see Appendix C) identified the endangered Indiana bat and northern long-eared bat as well as the proposed endangered tricolored bat as 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 bats during the brood-rearing months. If seasonal tree cutting is not possible, the USFWS indicated that a summer presence/absence survey may be conducted. No tree cutting is anticipated and no caves or mines are present, therefore, no impacts to the above listed bat species are anticipated.

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

Also as part of the ecological study completed for the Project, a coordination letter was submitted to the Ohio Department of Natural Resources ("ODNR") Division of Wildlife ("DOW") Ohio Natural Heritage Program ("ONHP") and the ODNR - Office of Real Estate seeking an environmental review of the proposed Project for potential impacts on state-listed and federally-listed threatened or endangered species. Correspondence from ODNR's DOW/OHNP and the ODNR – Office of Real Estate was provided on April 3, 2024 (see Appendix C).

According to the ODNR-DOW, the Project is within the range of the Indiana bat (*Myotis sodalis*), a state and federally endangered species; northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species; the little brown bat (*Myotis lucifugus*), a state endangered species; and the tricolored bat (*Perimyotis subflavus*), a state endangered species. In accordance with current ODNR-DOW/USFWS joint guidance, no known karst, mines and/or caves were identified within 0.25 mile of the project survey area. No tree clearing is anticipated for the Project. Therefore, no adverse impacts to listed bat species are anticipated and no additional coordination with ODNR is necessary.

The ODNR-DOW indicated that the Project is within the range of six federally or state listed mussel species, and two federally or state listed fish species. Due to location and no in-water work, these species are not anticipated to be impacted by the Project.

In addition, the ODNR listed the Project in the range of the northern harrier (*Circus hudsonis*), a state endangered bird. The northern harrier nests in large marshes and grasslands and hunts over grasslands. The upland sandpiper nests in many types of grasslands including hayfields. The nesting period for both species is between April 15 and July 31. At the time of the ecological survey, the Project area was fallow

agricultural land with surrounding areas under initial grading and construction activities associated with the solar facility. No nesting habitat for these bird species was present. Therefore, no impacts to the northern harrier or upland sandpiper are expected as a result of the Project.

B(10)(f) Areas of Ecological Concern

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

Based on correspondence with ODNR, review of desktop GIS data, and site reconnaissance, no unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, or other protected natural areas were identified within the Project area.

FEMA Flood Insurance Rate Maps were consulted to identify any floodplains/flood hazard areas that have been mapped in the Project area (specifically, map number **39137C0155D**). Based on these maps, no mapped FEMA floodplains are located in the Project area.

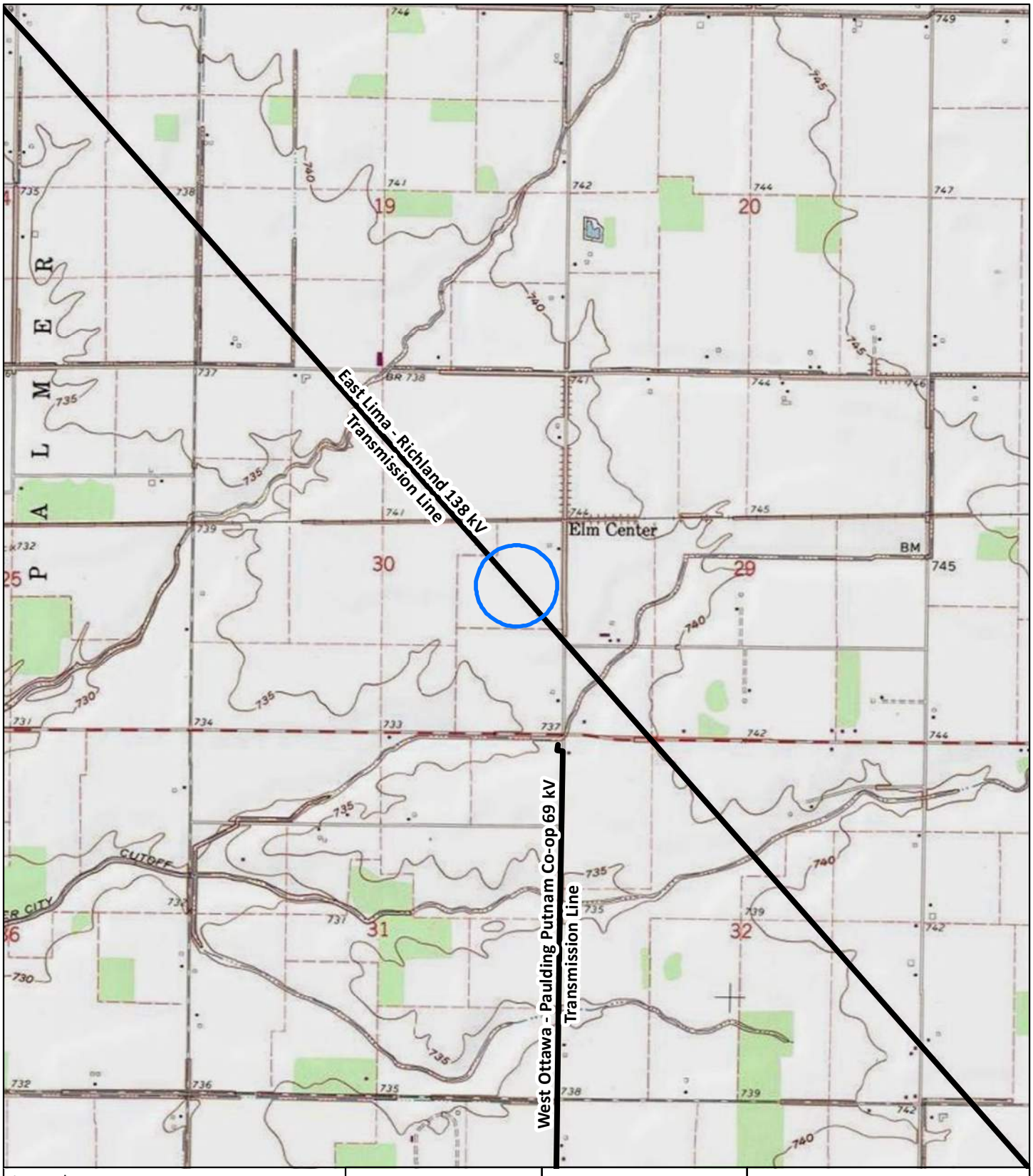
Wetland and stream delineation field surveys were completed within the Project area by the Company's consultant on March 13, 2024. No wetlands or streams were identified within the Project Area (see Figure 4 in Appendix D).

B(10)(g) Unusual Conditions

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

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

Appendix A Project Maps



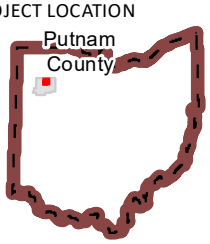
Legend:
- Project Area
- Existing Transmission Line

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

Ohio State Plane North
NAD 1983

April 05, 2024

PROJECT LOCATION



PUTNAM COUNTY, OHIO

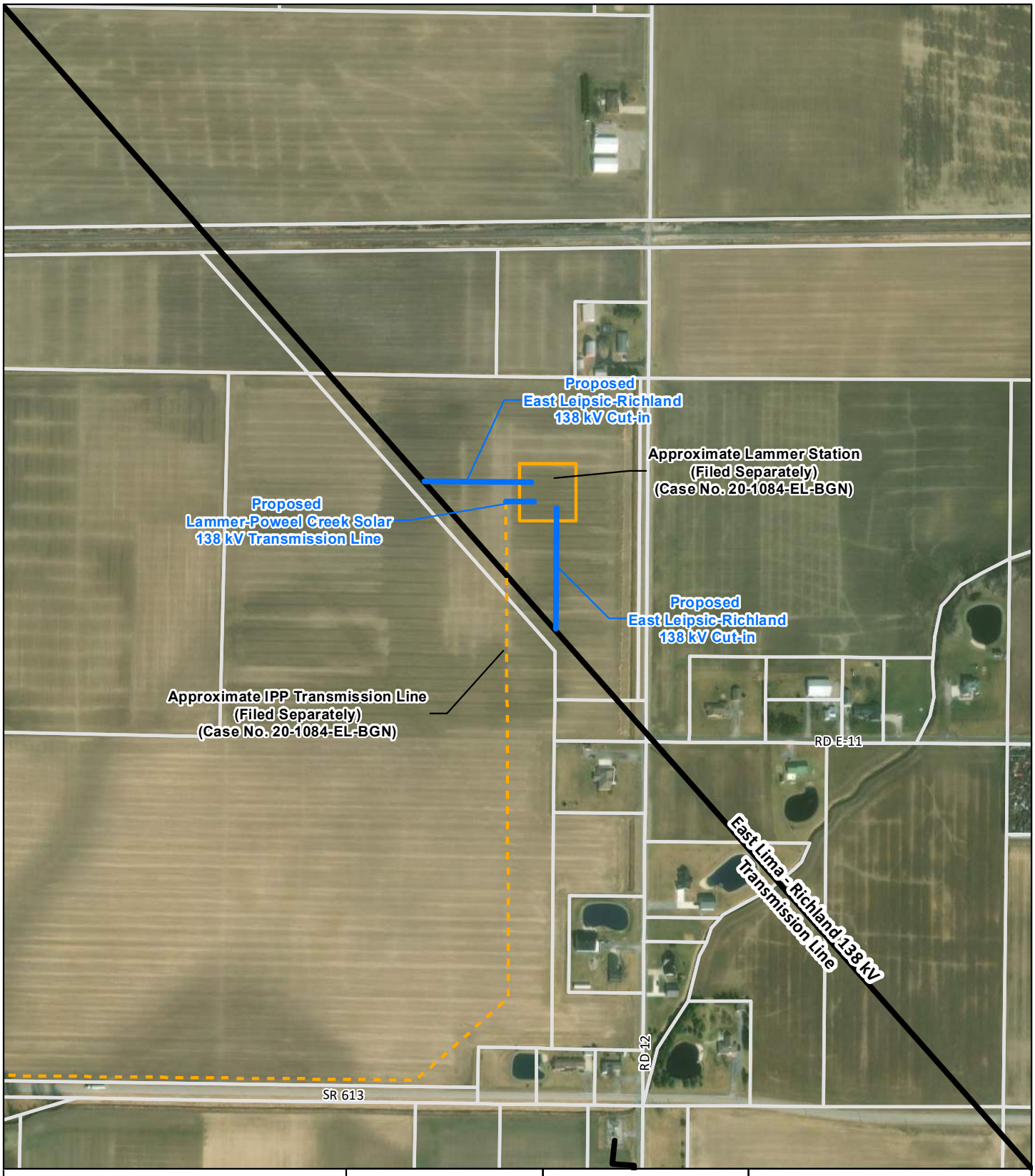
FIGURE 1
TOPOGRAPHIC OVERVIEW

AEP OHIO

Lammer-Powell Creek Solar
138 kV Transmission Line and
East Leipsic-Richland 138 kV Cut-in

0 1,000 2,000 3,000

Feet



Legend:

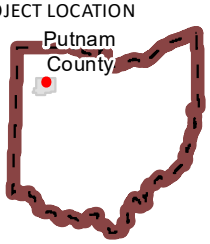
- Proposed Transmission Line
- Existing Transmission Line
- Approximate IPP Transmission Line (Filed Separately)
- Approximate Lammer Station (Filed Separately)
- Parcel Boundary

Data Sources: AEP, ESRI World Imagery, 2022

Ohio State Plane North NAD 1983

April 05, 2024

PROJECT LOCATION



PUTNAM COUNTY, OHIO

FIGURE 2
PROJECT AERIAL MAP

AEP OHIO

Lammer-Powell Creek Solar
138 kV Transmission Line and
East Leipsic-Richland 138 kV Cut-in

0 250 500 750

Feet

Appendix B PJM Slides and Long Term Forecast Report

Network Upgrades – AEP

NUN	Description	Cost ($M)	Driver
n8176.1	Install one (1) new 345 kV circuit breaker & associated equipment, update protective relay settings, and install jumpers for Sorenson & Tanners Creek 345 kV line re-terminations	$2.181	AE1-209
n8176.2	Re-terminate the Desoto – Tanners Creek and Desoto – Sorenson 345 kV circuits in the Desoto 345 kV "B" string	$0.499	AE1-209
n8177.1	Install new 138 kV three-breaker ring bus station along the East Leipsic - Richland 138 kV line. Install a Drop-In Control Module (DICM) and other associated line protection and control equipment, line risers, switches, jumpers, and supervisory control and data acquisition (SCADA) equipment	$5.898	AE2-072
n8177.2	Perform final connection of the East Leipsic - Richland 138 kV to the Lammer 138 kV Station, and update protective relay settings at East Leipsic 138 kV Station	$0.695	AE2-072
n8177.3	Install one (1) Fiber-Optic path to facilitate relaying between Lammer, East Leipsic, and Yellow Creek 138 kV Stations.	$0.767	AE2-072
n8178.1	Install new 138 kV three-breaker ring bus station along the Axton - Danville #1 138 kV line. Install a Drop-In Control Module (DICM) and other associated line protection and control equipment, line risers, switches, jumpers, and supervisory control and data acquisition (SCADA) equipment.	$4.701	AE2-140
n8178.2	Perform final connection of the Axton - Danville #1 138 kV line to the Lendlease 138 kV Station, update remote end protective relay settings.	$1.256	AE2-140
n8178.3	Install one (1) Fiber-Optic path to facilitate relaying between Lendlease and Axton 138 kV Stations	$0.764	AE2-140
n8178.4	Replace protective relays at Axton 138 kV	$0.243	AE2-140

12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Granny Run - Ravenswood (OP) 69 kV (AC1-082 TP2018091)
2	**POINTS OF ORIGIN AND TERMINATION**	Granny Run - Ravenswood (OP) INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	2.43 mi / 60 ft / 1 circuit (0.1 mi of line work)
4	**VOLTAGE: DESIGN / OPERATE**	69 kV / 69 kV
5	**APPLICATION FOR CERTIFICATE:**	None
6	**CONSTRUCTION:**	2022 - 2023
7	**CAPITAL INVESTMENT:**	$0.35M (reimbursable)
8	**PLANNED SUBSTATION:**	Granny Run
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**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Nottingham – BQ Energy IPP 138kV (AE2-290 TP2020119)
2	**POINTS OF ORIGIN AND TERMINATION**	Nottingham – BQ Energy INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.1 mi / 150 ft / 1 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	9/23/2022
6	**CONSTRUCTION:**	2022
7	**CAPITAL INVESTMENT:**	$0.5M (reimbursable)
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**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Lammer – Powell Creek Solar IPP 138 kV (AE2-072 TP2020176)
2	**POINTS OF ORIGIN AND TERMINATION**	Lammer – Powell Creek Solar INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.1 mi / 150 ft / 1 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2024
6	**CONSTRUCTION:**	2022
7	**CAPITAL INVESTMENT:**	$0.47M (reimbursable)
8	**PLANNED SUBSTATION:**	Lammer
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**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Lammer – East Leipsic 138kV (AE2-072 TP2020176)
2	**POINTS OF ORIGIN AND TERMINATION**	Lammer – East Leipsic INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	10.6 mi / 150 ft / 1 circuit (0.1 mi of line work)
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2024
6	**CONSTRUCTION:**	2022
7	**CAPITAL INVESTMENT:**	$0.36M (reimbursable)
8	**PLANNED SUBSTATION:**	Lammer
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**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Lammer – Richland (FE) 138kV (AE2-072 TP2020176)
2	**POINTS OF ORIGIN AND TERMINATION**	Lammer – Richland INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	15.8 mi / 150 ft / 1 circuit (0.1 mi of line work)
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2024
6	**CONSTRUCTION:**	2022
7	**CAPITAL INVESTMENT:**	$0.36M (reimbursable)
8	**PLANNED SUBSTATION:**	Lammer
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	First Energy
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new generation customer
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Gunn Rd – Scioto Solar IPP 345 kV (AE2-306 TP2020204)
2	**POINTS OF ORIGIN AND TERMINATION**	Gunn Rd – Scioto Solar INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.1 mi / 150 ft / 1 circuit (0.1 mi of line work)
4	**VOLTAGE: DESIGN / OPERATE**	345 kV / 345 kV
5	**APPLICATION FOR CERTIFICATE:**	2022
6	**CONSTRUCTION:**	2022
7	**CAPITAL INVESTMENT:**	$0.62M (reimbursable)
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**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Lockwood Road – Cepheus 138kV (AF1-063 TP2020269)
2	**POINTS OF ORIGIN AND TERMINATION**	Lockwood Road – Cepheus INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	0.1 mi / 100 ft / 1 circuit
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2022
6	**CONSTRUCTION:**	2022 - 2023
7	**CAPITAL INVESTMENT:**	$0.58M (reimbursable)
8	**PLANNED SUBSTATION:**	Lockwood Road (Rebuild)
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**	Generation deliverability limitation
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Lockwood Road – Richland (FE) 138kV (AF1-063 TP2020269)
2	**POINTS OF ORIGIN AND TERMINATION**	Lockwood Road – Richland INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	10 mi / 100 ft / 1 circuit (0.1 miles of line work)
4	**VOLTAGE: DESIGN / OPERATE**	138 kV / 138 kV
5	**APPLICATION FOR CERTIFICATE:**	2022
6	**CONSTRUCTION:**	2022 - 2023
7	**CAPITAL INVESTMENT:**	$0.5M (reimbursable)
8	**PLANNED SUBSTATION:**	Lockwood Road (Rebuild)
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Connect and serve new generation customer

Appendix C Agency Coordination

In reply, refer to
2024-PUT-60712

April 12, 2024

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

RE: East Leipsic-Richland 138kV Cut-in Project, Liberty Township, Putnam County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received March 15, 2024, regarding the proposed East Leipsic-Richland 138kV Cut-in Project, Liberty Township, Putnam 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 9.7 ha (23 ac) East Leipsic-Richland 138kV Cut-in Project in Liberty Township, Putnam County, Ohio* by Ryan J. Weller and Scott McIntosh (Weller & Associates, Inc. 2024). This survey is for a proposed electric transmission line cut-in project. The project is located north of State Route 613 in Liberty Township, Putnam County, Ohio.

A literature review, visual inspection, surface collection, and shovel test unit excavation were completed as part of the investigations. There were no previously identified archaeological sites located within the project area, although portions of the project area had been previously investigated for the presence of cultural resources. One (1) new archaeological site, Ohio Archaeological Inventory (OAI) #33PU0237, 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 four (4) resources fifty (50) years of age or older were identified in the Area of Potential Effects (APE) for indirect effects. 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 archaeological resources 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 Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Catherine Gullett, Project Reviews Coordinator
Resource Protection and Review
State Historic Preservation Office

RPR Serial No: 1102275

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

March 7, 2024

Project Code: 2024-0058216

Dear Olivia Speckman:

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,

Erin Knoll
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

April 3, 2024

Olivia Speckman
V3 Companies
619 North Pennsylvania Street
Indianapolis, Indiana 46204

Re: 24-0390_East Leipsic-Richland 138 kV Transmission Line Cut-In

Project: The proposed project involves constructing the East Leipsic-Richland 138 kV Transmission Line Cut-in to provide a 138 kV interconnection to the Powell Creek Solar facility.

Location: The proposed project is located in Liberty Township, Putnam 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 clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel, the white catspaw (*Epioblasma obliquata perobliqua*), a state endangered and federally endangered mussel, the wartyback (*Quadrula nodulata*), a state endangered mussel, the purple lilliput (*Toxolasma lividus*), a state endangered mussel, and the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered mussel. Due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact these species.

The project is within the range of the pugnose minnow (*Opsopoeodus emiliae*), a state endangered fish, and the greater redhorse (*Moxostoma valenciennesi*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact these 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.

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

EAST LEIPSIC-RICHLAND
ECOLOGICAL REPORT

PROJECT SITE:

Northwest of Road 12 and Road E11
Putnam County, Ohio

PREPARED FOR:

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

AEP OHIO TRANSMISSION COMPANY
An AEP Company
BOUNDLESS ENERGY

PREPARED BY:

V3 Companies, Ltd.
619 North Pennsylvania Street
Indianapolis, Indiana 46204
(317) 423-0690

March 2024
Revised April 2024

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EXECUTIVE SUMMARY

V3 Companies, Ltd. (V3), performed an ecological survey and report for the East Leipsic-Richland Project, located northwest of the intersection of Road 12 and Road E11 in Putnam County, Ohio (SITE) on March 13, 2024. The project involves constructing the East Leipsic-Richland 138 kV Transmission Line Cut-in to provide a 138 kV interconnection to the Powell Creek Solar facility, proposed by Powell Creek Solar, L.L.C., an Independent Power Producer, and the East Leipsic-Richland 138 kV circuit of the East Lima-Richland 138 kV Transmission Line.

V3 reached the following conclusions based on review of available and reasonably ascertainable federal, state, and local resources, and a SITE inspection conducted on the date referenced above.

- One roadside ditch was identified on-SITE. The roadside ditch appears to be a manmade feature used to convey stormwater from the road and existing tile drains from the adjacent agricultural fields. Based on CFR 40 CFR 120.2(b)(3), it is V3's professional opinion that the identified manmade ditch is not likely a "Waters of the U.S.". Although this is V3's opinion, the USACE has final jurisdictional determination authority over potential water resource features.
- An official species list obtained from the U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation (IPaC) website indicated that the SITE is within the ranges of the federally endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), the proposed endangered tricolored bat (*Perimyotis subflavus*), salamander mussel (*Simpsonaias ambigua*), and the monarch butterfly (*Danaus plexippus*), a candidate for listing under the Endangered Species Act. The USFWS made recommendations to avoid impacts to on-SITE streams and wetlands, and to avoid clearing potential roost trees for the federally listed bat species. The USFWS stated that if tree clearing cannot be avoided, then seasonal clearing shall be done to avoid adverse effects to the Indiana bats and the northern long-eared bats. The USFWS stated that due to the project, type, size, and location, the agency does not anticipate adverse effects to any other federally endangered, threatened, or proposed species or proposed or designated critical habitat.
- A review of the Ohio Natural Heritage Database with the Ohio Department of Natural Resources (ODNR) indicates there are no records of state or federally listed plants or animals within one mile of the project area. Additionally, the ODNR Division of Fish and Wildlife stated that the SITE is within the range of 13 threatened or endangered species. The SITE does not appear to have perennial streams, grasslands, roost trees, or other potential suitable habitats for these species. The ODNR stated that the project is not likely to impact these species if the habitat is not impacted and gave recommendations to avoid and minimize impacts to these species and their habitats.

CHAPTER 1 INTRODUCTION

This report has been prepared solely in accordance with an agreement between American Electric Power ("CLIENT") and V3 Companies ("V3"), Ltd.

The services performed by V3 have been conducted in a manner consistent with the level of quality and skill generally exercised by members of its profession and consulting practices relating to this type of engagement.

This report is solely for the use of CLIENT and was prepared based upon an understanding of CLIENT's specific objective(s) and based upon information obtained by V3 in furtherance of CLIENT's specific objective(s). Any reliance of this report by third parties shall be at such third party's sole risk as this report may not contain, or be based upon, sufficient information for purposes of other parties, for their objectives, or for other uses. This report shall only be presented in full and may not be used to support any other objectives than those for CLIENT as set out in the report, except where written approval and consent are expressly provided by CLIENT and V3.

1.1 INTRODUCTION

The purpose of this investigation was to conduct an ecological survey and report of the SITE to evaluate potential land development permitting requirements regarding natural resources. In this report, V3 provides a detailed description of the information reviewed and collected as part of the scope of work for this project. V3 summarizes the jurisdictional framework applicable to this project, provides a desktop review of relevant and publicly available documents, and details information collected during the SITE reconnaissance including a wetlands determination, an evaluation of the potential presence of other natural resources within the SITE boundary, and a discussion of endangered, threatened, and rare (ETR) species and habitat. The Conclusions section summarizes V3's findings, addresses potential areas of concern and permitting, regulatory, and other relevant issues.

The 23-acre SITE is located northwest of the intersection of Road 12 and Road E11 in Putnam County, Ohio (**Figure 1**).

CHAPTER 2 JURISDICTIONAL RESOURCES

2.1 WETLANDS

Wetlands offer a variety of functions and values that may include, but are not limited to, groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, and fish and wildlife habitat. Because of the perceived functions and values of wetlands, USACE developed the Wetlands Delineation Manual, (*1987 Manual*)[1] to identify wetlands.

Wetlands are defined in the *1987 Manual* as, "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."[2] The *1987 Manual* outlines the protocol for distinguishing wetland areas from "upland" areas. Wetland areas are delineated according to three primary criteria: vegetation, soil, and hydrology. An area is determined to qualify as a wetland if it meets the following "general diagnostic environmental characteristics:"

- Hydrophytic vegetation
- Hydrology
- Hydric Soil

[1] USACE. Waterways Experiment Station. Wetlands Research Program. "Corps of Engineers Wetlands Delineation Manual." Vicksburg, MS: Environmental Laboratory, 1987

CHAPTER 3 DESKTOP REVIEW

V3 reviewed applicable, readily available, and accessible historical information for the potential presence of wetlands, "Waters of the U.S.," and other natural resources.

3.1 UNITED STATES GEOLOGICAL SURVEY 7.5-MINUTE QUADRANGLE MAP

A USGS 7.5-Minute Quadrangle map displays contour lines to portray the shape and elevation of the land surface. Quadrangle maps render the three-dimensional changes in elevation of the terrain on a two-dimensional surface. The maps usually portray both manmade and natural topographic features. Although they show lakes, rivers, various surface water drainage trends, vegetation, etc., they typically do not provide the level of detail needed for accurate evaluation of wetlands. However, the existence of these features may suggest the potential presence of wetlands.

The SITE is situated in the Ottawa, Ohio USGS 7.5-Minute Quadrangle Map, in Section 30, Township 2 North, Range 7 East. V3 evaluated the topography and concluded that the SITE elevation ranges from approximately 735 to 740 feet above mean sea level (AMSL). No aquatic features are mapped within the SITE area (**Figure 1**).

3.2 NATIONAL WETLANDS INVENTORY MAP

National Wetlands Inventory (NWI) maps were developed to meet a USFWS mandate to map the wetland and deepwater habitats of the U.S. These maps were developed using high altitude aerial photographs and USGS Quadrangle maps as a topographic base. Indicators that exhibited pre-determined wetland characteristics, visible in the photographs, were identified according to a detailed classification system. The NWI map retains some of the detail of the Quadrangle map; however, it is used primarily for demonstration of wetland areas identified by the agency. The maps are accurate to a scale of 1:24,000. In general, the NWI information requires field verification.

NWI data is shown projected over aerial imagery in **Figure 2**. No NWI features are mapped within the SITE area. The presence of NWI features mapped partially or fully within the SITE area suggests the potential presence of wetlands or other regulated aquatic features on-SITE.

3.3 FLOOD INSURANCE RATE MAP

The Federal Emergency Management Agency (FEMA) was developed in 1979 to reform disaster relief and recovery, civil defense, and to prepare and mitigate for natural hazards. The Mitigation Division of FEMA manages the National Flood Insurance Program which provides guidance on how to lessen the impact of disasters on communities through flood insurance, floodplain management, and flood hazard mapping. Proper floodplain management has the ability to minimize the extent of flooding and flood damage and improve stormwater quality by reducing stormwater velocities and erosion. The one percent annual chance flood (100-year flood) boundary must be kept free of encroachment as the national standard for the program.

V3 reviewed digital National Flood Hazard Zone data for Putnam County, Ohio. No portion of the SITE is mapped within the 100-year floodway or a flood zone (**Figure 2**).

3.4 UNITED STATES DEPARTMENT OF AGRICULTURE SOIL SURVEY

V3 reviewed the soils mapped on-SITE using the Natural Resource Conservation Service (NRCS) digital soil survey data for Putnam County, Ohio. This data is projected over aerial photography, illustrating distinct soil map unit boundaries, in **Figure 3**. The soil survey on-SITE is summarized in **Table 3-1**.

Table 3-1: Soil Survey On-SITE

Soil Map Unit	Description	Hydric within Putnam County
Lb	Latty silty clay, till substratum, 0 to 1 percent slopes	Yes

Latty silty clay, till substratum, 0 to 1 percent slopes (Lb) is considered hydric within Putnam County, Ohio. Soils are considered hydric if more than 50 percent of the soil contains hydric components according to the NRCS Web Soil Survey. The presence of hydric soil units within the SITE area suggests appropriate wetland soils are located on-SITE.

3.5 ENDANGERED, THREATENED, AND RARE SPECIES EVALUATION

An official species list obtained from the USFWS IPaC website indicated that the SITE is within the ranges of the federally endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), the proposed endangered tricolored bat (*Perimyotis subflavus*), salamander mussel (*Simpsonaias ambigua*), and the monarch butterfly (*Danaus plexippus*), a candidate for listing under the Endangered Species Act. The USFWS made recommendations to avoid impacts to on-SITE streams and wetlands, and to avoid clearing potential roost trees for the federally listed bat species. The USFWS stated that if tree clearing cannot be avoided, then seasonal clearing shall be done to avoid adverse effects to the Indiana bats and the northern long-eared bats. The USFWS stated the due to the project, type, size, and location, the agency does not anticipate adverse effects to any other federally endangered, threatened, or proposed species or proposed or designated critical habitat.

A review of the Ohio Natural Heritage Database with the ODNR indicates there are no records of state or federally listed plants or animals within one mile of the project area. Additionally, the ODNR Division of Fish and Wildlife stated that the SITE is within the range of 13 threatened or endangered species (Table 3-2). The ODNR stated that the project is not likely to impact these species if the habitat is not impacted and gave recommendations to avoid and minimize impacts to these species and their habitats.

ODNR recommended a desktop habitat assessment followed by a field assessment, if needed, to identify if potential bat hibernacula are present within the project area. V3 completed a desktop assessment including data on known abandoned or active mines and locations known or suspected of karst geology. The desktop assessment identified no karst features or mine openings within 0.25 mile of the Project area. Further, no suitable bat hibernacula were observed during the field reconnaissance.

Based on the documentation referenced above, additional correspondence with the agencies does not appear to be warranted at this time. If federal permitting or federal financing will be used in future development, additional coordination may be necessary. Copies of agency correspondence can be referenced in Appendix A.

Table 3-2: ETR Species Table

Scientific Name	Common Name	State Listed Status	Federally Listed Status	Typical Habitat Description	Habitat Observed In Survey Area	Avoidance Dates	Agency Comment (Appendix A)	Potential Impacts
Mussels								
Pleurobema clava	Club shell	Endangered	Endangered	Perennial streams	No	N/A	ODNR - If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.	No
Villosa fabalis	Rayed bean	Endangered	Endangered	Perennial streams	No	N/A		No
Epioblasma obliquata perobliqua	White catspaw	Endangered	Endangered	Perennial streams	No	N/A		No
Quadrula nodulata	Wartyback	Endangered	N/A	Perennial streams	No	N/A		No
Toxolasma lividus	Purple lilliput	Endangered	N/A	Perennial streams	No	N/A		No
Quadrula cylindrica cylindrica	Rabbitsfoot	Endangered	N/A	Perennial streams	No	N/A		No
Fishes								
Opsopoeodus emiliae	Pugnose minnow	Endangered	N/A	Perennial streams	No	15 March to 30 June	ODNR - If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.	No
Moxostoma valenciennesi	Greater redhorse	Threatened	N/A	Perennial streams	No	15 March to 30 June		No

Mammals								
Myotis sodalis	Indiana bat	Endangered	Endangered	During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees	No	1 April to 30 September	ODNR/USFWS – Cutting of trees is recommended between 1 October and 31 March. If seasonal tree cutting is not possible, a mist net survey or acoustic survey may be conducted by an approved surveyor between 1 June and 15 August. ODNR - If a habitat assessment finds that potential hibernacula are present within 0.25 mile of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the Division of Wildlife (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.	No
Myotis septentrionalis	Northern long-eared bat	Endangered	Endangered		No			
Myotis lucifugus	Little brown bat	Endangered	Endangered		No			
Perimyotis subflavus	Tricolored bat	Proposed Endangered	N/A		No			

Birds								
Circus hudsonius	*Northern Harrier*	*Endangered*	N/A	Breed and hunt in large marshes and grasslands. Nests on the ground atop mounds	No	15 March to 31 July	ODNR - If the habitat will not be impacted, this project is not likely to impact this species.	No

CHAPTER 4 SITE RECONNAISSANCE

4.1 METHODOLOGY

V3 conducted a field investigation at the SITE on March 13, 2024. During this investigation, V3 noted the presumed land use of the SITE and surrounding area and evaluated the SITE for the potential presence of wetlands, "Waters of the U.S.," and natural resources using the findings of the desktop review and field observations. Photographs were taken during the field investigation and are provided in Appendix B.

V3 used the Routine Determination Method (RDM) with an established baseline and transects as described in the *1987 Manual* for typical sites over five acres. V3 recorded data from a number of data points (DP) along the transect as a function of diversity of vegetation, property size, soil types, habitat variability, and other SITE features as deemed appropriate by V3. Where evidence of a wetland was suspected, three wetland criteria were applied to determine if the area in question was representative of a wetland using the methodology set forth by USACE. More specifically, V3 visually examined and recorded the dominant vegetation, recorded soil properties such as texture and color using the Munsell Soil Color Chart (Munsell Color Chart), excavated soil pits, and evaluated the primary and secondary hydrologic indicators.

If all three criteria were met, i.e. vegetation, soil properties, and hydrologic indicators, a second DP was established adjacent to the wetland DP in an area outside of the presumed wetland boundary for the purpose of delineating between the wetland and non-wetland areas. Once delineated, V3 continued the RDM to evaluate the remainder of the SITE.

4.2 SITE AND ADJACENT PROPERTY LAND USE

The 23-acre SITE consists of fallow agricultural land (small portion planted with cover crops). Adjacent land use consists of agricultural land planted with cover crops and residential properties.

4.3 WETLAND SUMMARY

No wetlands were identified during this investigation based upon the methodology set forth in the *1987 Manual* and the *North Central Northeast Regional Supplement*. Information that V3 collected at each DP on March 13, 2024, is described in the following section. This information is summarized on the forms provided in Appendix C. An overall SITE delineation map showing placement of the DPs is included as Figure 4.

4.4 DATA POINT SUMMARY

Below is a description of the information collected at each additional DP during the March 13, 2024, field investigation that was not associated with an identified wetland area. The purpose of collecting these DPs was to describe the remaining characteristics of the SITE. Information that was collected at each DP is summarized on the forms provided in Appendix C. Their placement is depicted in Figure 6.

DP 1

This DP was collected in the south portion of the SITE, southeast of proposed structure 155. This area met the hydric soil criteria but did not meet any other criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of white clover (*Trifolium repens*, FACU, 45%) and annual ryegrass (*Lolium multiflorum*, UPL, 40%). The soil profile met the depleted matrix (F3) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP 2

This DP was collected in the central portion of the SITE, between proposed structures 155A and 155. This area met the hydric soil criteria but did not meet any other criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of annual ryegrass (UPL, 50%) and white clover (FACU, 30%). The soil profile met the depleted matrix (F3) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP 3

This DP was collected in the northwest portion of the SITE, north of proposed structure 155A. This area met the hydric soil criteria but did not meet any other criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of annual ryegrass (UPL, 45%), Japanese bristlegrass (*Setaria faberi*, FACU, 30%), and white clover (FACU, 25%). The soil profile met the depleted matrix (F3) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP 4

This DP was collected in the northeast portion of the SITE. This area met the hydric soil criteria but did not meet any other criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Japanese bristlegrass (FACU, 50%), annual ryegrass (UPL, 30%), and white clover (FACU, 20%). The soil profile met the depleted matrix (F3) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP 5

This DP was collected in the east portion of the SITE. This area did not meet any wetland criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of annual ryegrass (UPL, 15%), dandelion (*Taraxacum officinale*, FACU, 10%), and creeping thistle (*Cirsium arvense*, FACU, 10%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 6

This DP was collected in the central portion of the SITE. This area did not meet any wetland criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of annual ryegrass (UPL, 60%), Japanese bristlegrass (FACU, 20%), and white clover (FACU, 20%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.5 DRAINAGE FEATURES, STREAMS, AND OTHER POTENTIAL "WATERS OF THE U.S."

One roadside ditch was identified during this investigation using the methods described in Chapter 2. Information that V3 collected at each feature on March 13, 2024, is described in the following section. An overall SITE delineation map is included as **Figure 4**.

4.5.1 Roadside Ditch – (1,280-linear feet, 24-linear feet Top of Bank)

The roadside ditch is located on the east portion of the SITE, along Road 12, and consists of 1,280 linear feet within the SITE. The substrate of the roadside ditch consisted of gravel, sand, clay, and silt. The roadside ditch is a manmade feature used to convey stormwater from the road and existing tile drains from the adjacent agricultural fields.

CHAPTER 5 CONCLUSIONS

On March 13, 2024, V3 performed a wetland delineation of the SITE located in the Ottawa, Ohio USGS 7.5-Minute Quadrangle Map, in Section 30, Township 2 North, Range 7 East.

Table 5-1 Aquatic Features Identified On-SITE

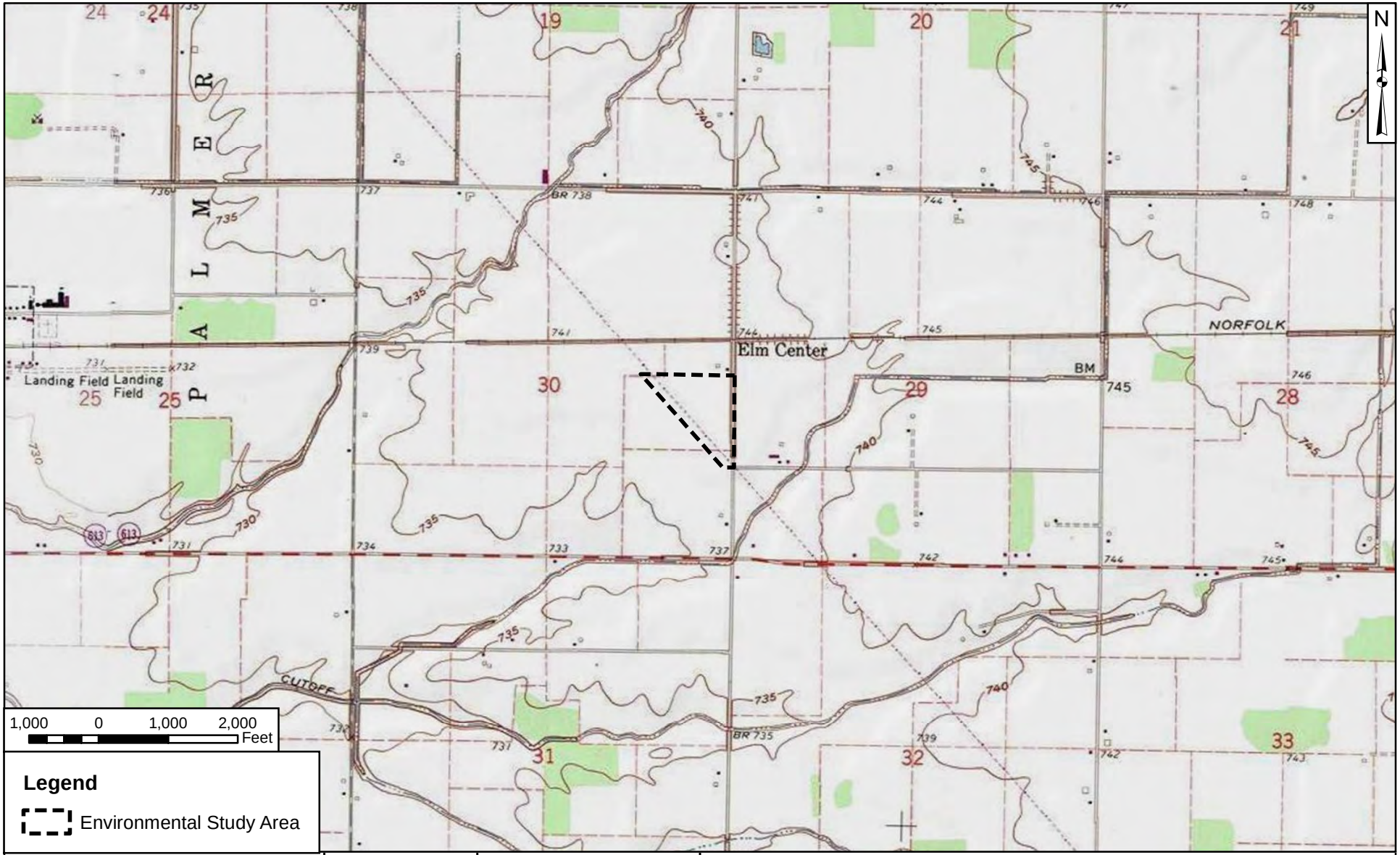
Feature	Feature Type	Size On-SITE
Roadside Ditch	Ditch	1,280 LF

One roadside ditch was identified on-SITE. The roadside ditch appears to be a manmade feature used to convey stormwater from the road and existing tile drains from the adjacent agricultural fields. Based on CFR 40 CFR 120.2(b)(3), it is V3's professional opinion that the identified manmade ditch is not likely a "Waters of the U.S.". Although this is V3's opinion, the USACE has final jurisdictional determination authority over potential water resource features.

An official species list obtained from the USFWS IPaC website indicated that the SITE is within the ranges of the federally endangered Indiana bat, northern long-eared bat, the proposed endangered tricolored bat, the salamander mussel, and the monarch butterfly, a candidate for listing under the Endangered Species Act. The USFWS made recommendations to avoid impacts to on-SITE streams and wetlands, and to avoid clearing potential roost trees for the federally listed bat species. The USFWS stated that if tree clearing cannot be avoided, then seasonal clearing shall be done to avoid adverse effects on the Indiana bats and the northern long-eared bats. The USFWS stated that due to the project, type, size, and location, the agency does not anticipate adverse effects to any other federally endangered, threatened, or proposed species or proposed or designated critical habitat.

A review of the Ohio Natural Heritage Database with the ODNR indicates there are no records of state or federally listed plants or animals within one mile of the project area. Additionally, the ODNR Division of Fish and Wildlife stated that the SITE is within the range of 13 threatened or endangered species. The SITE does not appear to have perennial streams, grasslands, roost trees, or other potential suitable habitats for these species. The ODNR stated that the project is not likely to impact these species if the habitat is not impacted and gave recommendations to avoid and minimize impacts to these species and their habitats.

Figures



619 N. Pennsylvania Street
Indianapolis, IN 46204
317.423.0690 phone
www.v3co.com

Visio, Vertere, Virtute...
"The Vision To Transform With Excellence"

PROJECT NO.:	210180.199
CREATED BY:	ODS
DATE:	03/18/2024
SCALE:	See Scale Bar

CLIENT:
American Electric Power
8600 Smiths Mill Road
New Albany, Ohio 43054

BASE LAYER:
USGS Topographic Map
Ottawa, Ohio Quadrangle

USGS TOPOGRAPHIC MAP

SITE:
East Leipsic- Richland Project
Putnam County, Ohio

FIGURE:
1

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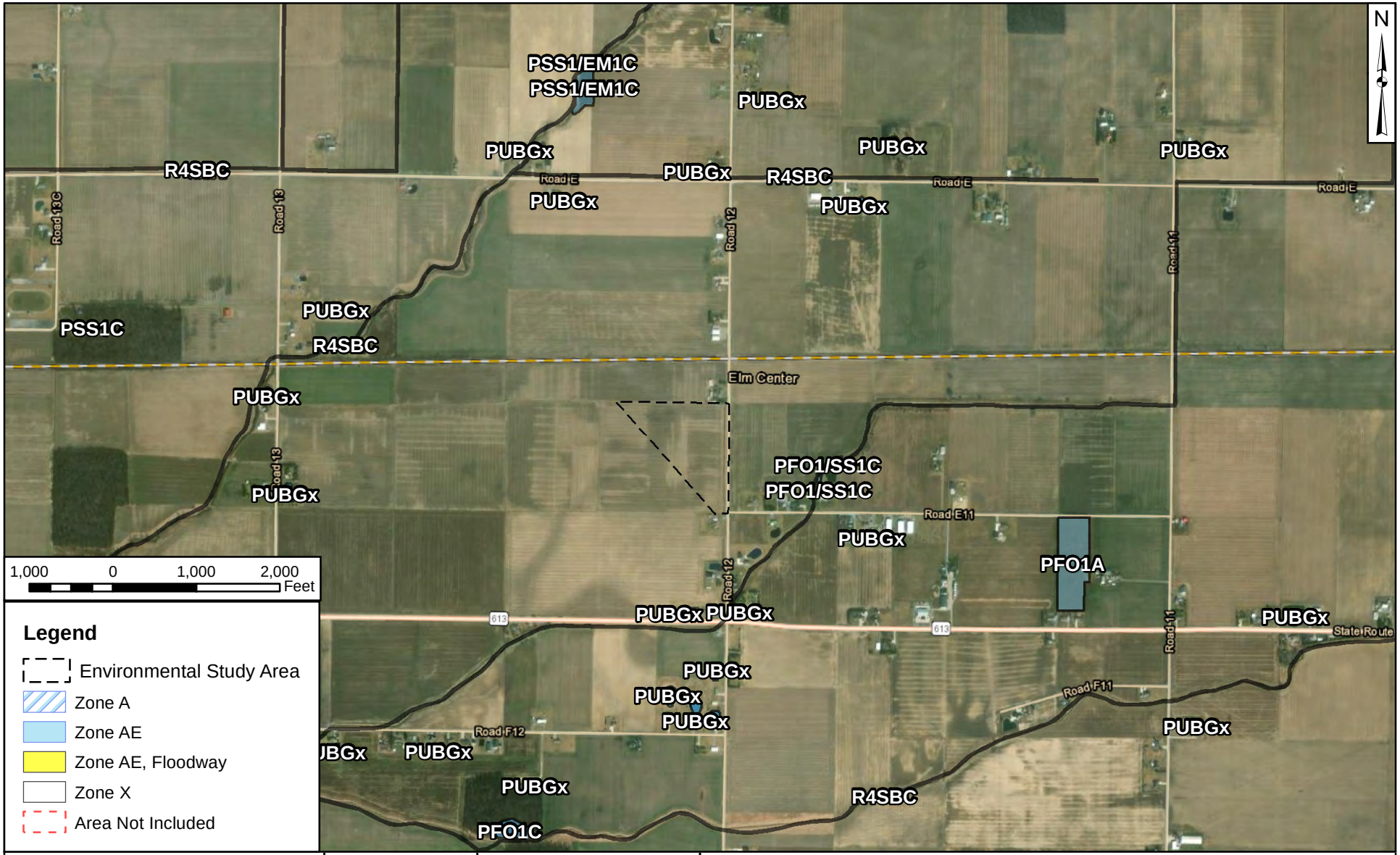

619 N. Pennsylvania Street
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PROJECT NO.:	210180.199
CREATED BY:	ODS
DATE:	03/18/2024
SCALE:	See Scale Bar

CLIENT:
American Electric Power
8600 Smiths Mill Road
New Albany, Ohio 43054

BASE LAYER:
Aerial Imagery
(2023)

TITLE:
NATIONAL WETLAND INVENTORY (NWI) & FLOOD ZONES OF PUTNAM COUNTY, OH MAP

SITE:
East Leipsic-Richland Project
Putnam County, Ohio

FIGURE:
2

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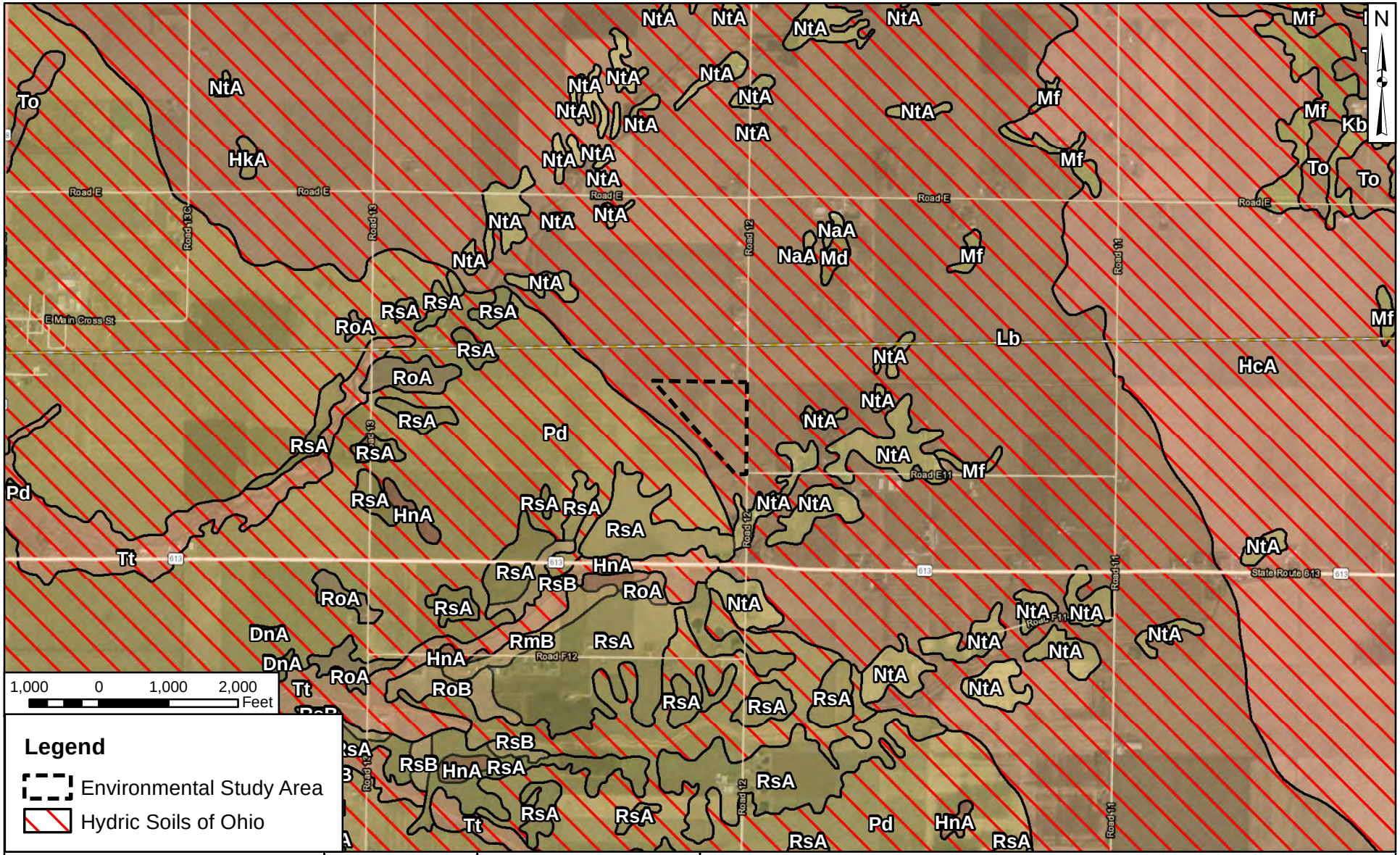

619 N. Pennsylvania Street Indianapolis, IN 46204 317.423.0690 phone www.v3co.com	PROJECT NO.: 210180.199 CREATED BY: ODS	CLIENT: American Electric Power 8600 Smiths Mill Road New Albany, Ohio 43054	TITLE: **SOIL SURVEY OF PUTNAM COUNTY, OH MAP**
	DATE: 03/20/2024	BASE LAYER: Aerial Imagery (2023)	SITE: East Leipsic-Richland Project Putnam County, Ohio
Visio, Vertere, Virtute... *"The Vision To Transform With Excellence"*	SCALE: See Scale Bar		FIGURE: 3

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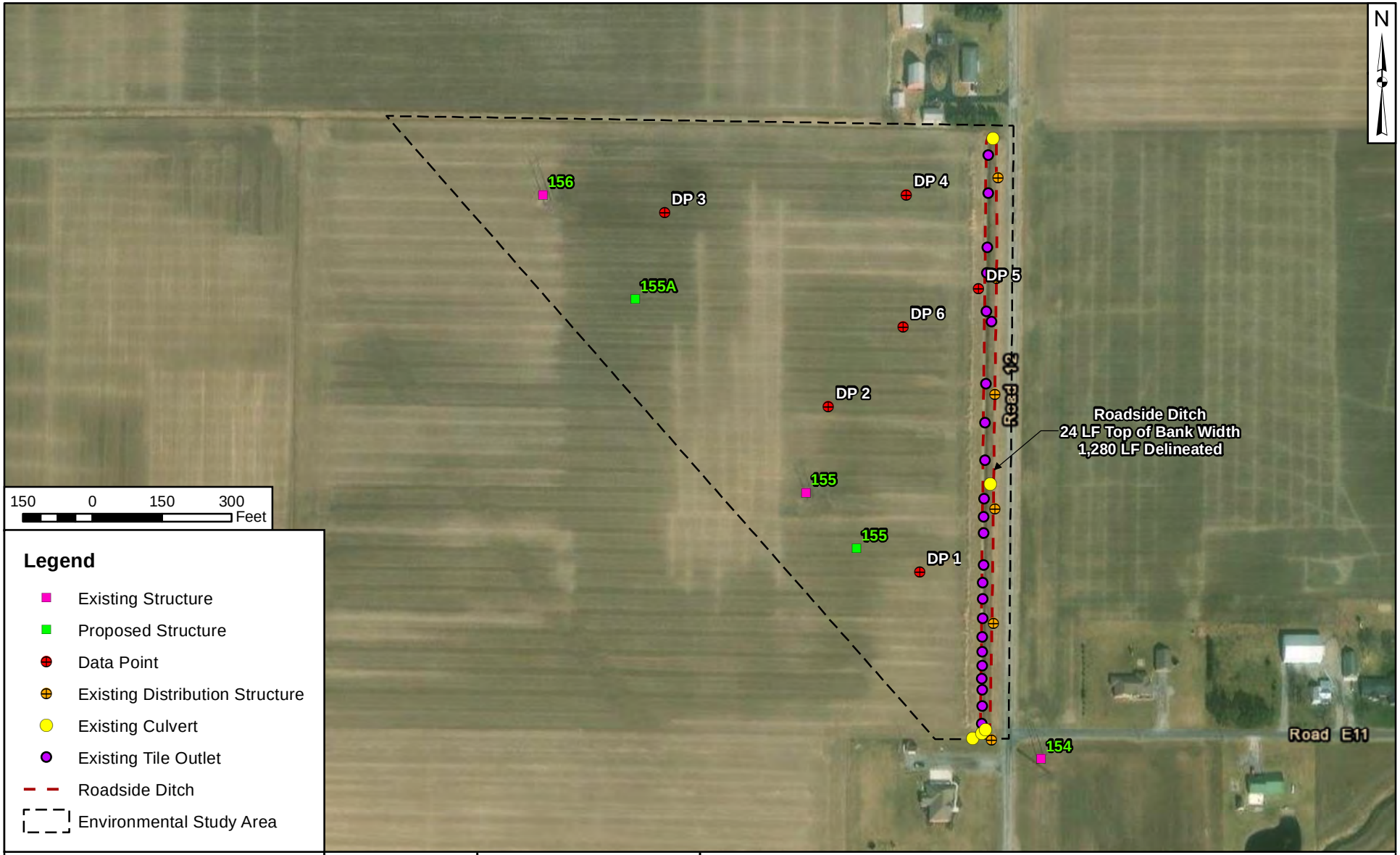

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Indianapolis, IN 46204
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PROJECT NO.: 210180.199	CLIENT: American Electric Power, 8600 Smiths Mill Road, New Albany, Ohio 43054	TITLE: **DELINEATION MAP**	
CREATED BY: ESH			
DATE: 04/02/2024	BASE LAYER: Aerial Imagery (2023)	SITE: East Leipsic-Richland Project, Putnam County, Ohio	FIGURE: 4
SCALE: See Scale Bar			

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Appendix A

ETR Species Correspondence Letters

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To:
Project Code: 2024-0058216
Project Name: East Leipsic-Richland

March 05, 2024

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

PROJECT SUMMARY

Project Code: 2024-0058216
Project Name: East Leipsic-Richland
Project Type: Transmission Line - Maintenance/Modification - Above Ground
Project Description: The project involves constructing the East Leipsic-Richland 138 kV Transmission Line Cut-in to provide a 138 kV interconnection to the Powell Creek Solar facility, proposed by Powell Creek Solar, L.L.C., an Independent Power Producer, and the East Leipsic-Richland 138 kV circuit of the East Lima-Richland 138 kV Transmission Line.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.0991765,-84.09372752364428,14z

Counties: Putnam County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

CLAMS

NAME	STATUS
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: V3 Companies
Name: Olivia Speckman
Address: 619 N Pennsylvania Street
City: Indianapolis
State: IN
Zip: 46204
Email ospeckman@v3co.com
Phone: 3174230690

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

March 7, 2024

Project Code: 2024-0058216

Dear Olivia Speckman:

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,

Erin Knoll
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

April 3, 2024

Olivia Speckman
V3 Companies
619 North Pennsylvania Street
Indianapolis, Indiana 46204

Re: 24-0390_East Leipsic-Richland 138 kV Transmission Line Cut-In

Project: The proposed project involves constructing the East Leipsic-Richland 138 kV Transmission Line Cut-in to provide a 138 kV interconnection to the Powell Creek Solar facility.

Location: The proposed project is located in Liberty Township, Putnam 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 clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel, the white catspaw (*Epioblasma obliquata perobliqua*), a state endangered and federally endangered mussel, the wartyback (*Quadrula nodulata*), a state endangered mussel, the purple lilliput (*Toxolasma lividus*), a state endangered mussel, and the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered mussel. Due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact these species.

The project is within the range of the pugnose minnow (*Opsopoeodus emiliae*), a state endangered fish, and the greater redhorse (*Moxostoma valenciennesi*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact these 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.

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 B

SITE Photographs

Photo: 1 DP 1 **Direction of View:** North **Date:** 13 March 2024	
Photo: 2 DP 2 **Direction of View:** East **Date:** 13 March 2024	
Photo: 3 DP 3 **Direction of View:** East **Date:** 13 March 2024	

Photo: 4 DP 4 **Direction of View:** South **Date:** 13 March 2024	
Photo: 5 DP 5 **Direction of View:** East **Date:** 13 March 2024	
Photo: 6 DP 6 **Direction of View:** West **Date:** 13 March 2024	

Photo: 7 Roadside Ditch **Direction of View:** North **Date:** 13 March 2024	
Photo: 8 Roadside Ditch **Direction of View:** South **Date:** 13 March 2024	

Appendix C

Data Forms

WETLAND DETERMINATION FORM-NORTHCENTRAL AND NORTHEAST REGION

Site: East Leipsic-Richland | City/County: Putnam County | Date: 13 Mar 2024 | Data Point: DP 1
Client: American Electric Power | State: OH | Section, Township, Range: Sec 30, T 2N, R 7E
Investigator(s): N. Houk, E. Holt | Landform: Lake Plains | Local Relief: Convex
Slope (%): 0-1 | Lat. 41.098340 | Long. -84.093040 | Datum: NAD 83 | NWI Class: N/A
Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes | Subregion (LRR or MLRA): LRR L
Climatic/hydrologic conditions typical for time of year? Y/N: Y
Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed
Vegetation ____, Soil ____ or Hydrology ____ naturally problematic
Are Normal Circumstances Present? Yes X No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	X	No
Wetland Hydrology Present?	Yes	No	X

Is the DP within a Wetland? **Yes** **No** X

Remarks: **Does not meet all wetland criteria**

VEGETATION

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species	Indicator Status	
1.				
2.				
3.				
4.				
5.				
	0	Total Cover		
Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
	0	Total Cover		
Herb Stratum (Plot size: 5')				
1. *Trifolium repens*	45	Y	FACU	4
2. *Lolium multiflorum*	40	Y	UPL	5
3. *Setaria faberi*	10	N	FACU	4
4. *Rumex crispus*	5	N	FAC	3
5.				
6.				
7.				
8.				
	100	Total Cover		
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
	0	Total Cover		

Remarks:

Dominance Test Worksheet
Number of dominant species that are OBL, FACW, or FAC: 0
Total number of dominant species across all strata: 2
Percent of dominant species that are OBL, FACW, or FAC: 0.00

Prevalence Index Worksheet

Total % cover of:			
OBL species	0	x 1	0
FACW species	0	x 2	0
FAC species	5	x 3	15
FACU species	55	x 4	220
UPL species	40	x 5	200
Total	100		435
		Prevalence Index:	4.35

Hydrophytic Vegetation Indicators:
____ Rapid Test for Hydrophytic Veg.
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0*
____ Morphological Adaptations*
____ Problematic Hydrophytic Vegetation*
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** **No** x

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-8	10YR 4/1	100					CL	
8-18	10YR 4/1	98	10YR 5/6	2	C	M	CL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

____ Histosol (A1)	____ Sandy Gleyed Matrix (S4)	____ Redox Dark Surface (F6)
____ Histic Epipedon (A2)	____ Sandy Redox (S5)	____ Depleted Dark Surface (F7)
____ Black Histic (A3)	____ Stripped Matrix (S6)	____ Redox Depressions (F8)
____ Hydrogen Sulfide (A4)	____ Dark Surface (S7)	____ Marl (F10)
____ Stratified Layers (A5)	____ Thin Dark Surface (S9)	**Indicators for Problematic Hydric Soils**
____ Depleted Below Dark Surface (A11)	____ Loamy Mucky Mineral (F1)	____ 2 cm Muck (A10)
____ Thick Dark Surface (A12)	____ Loamy Gleyed Matrix (F2)	____ 5cm Mucky Peat or Peat
____ Sandy Mucky Mineral (S1)	X Depleted Matrix (F3)	____ Other

Restrictive Layer (if observed): Type:
Depth (Inches):

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)		Secondary Indicators
____ Surface Water (A1)	____ Water Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ True Aquatic Plants (B14)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soil (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Guage or Well Data (D9)	____ Microtopographic Relief (D4)
____ Sparsely Vegetated Concave Surface	____ Other	____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

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

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

WETLAND DETERMINATION FORM-NORTHCENTRAL AND NORTHEAST REGION

Site: East Leipsic-Richland | City/County: Putnam County | Date: 13 Mar 2024 | Data Point: DP 2
Client: American Electric Power | State: OH | Section, Township, Range: Sec 30, T 2N, R 7E
Investigator(s): N. Houk, E. Holt | Landform: Lake Plains | Local Relief: Convex
Slope (%): 0-1 | Lat. 41.099317 | Long. -84.093783 | Datum: NAD 83 | NWI Class: N/A
Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes | Subregion (LRR or MLRA): LRR L
Climatic/hydrologic conditions typical for time of year? Y/N: Y
Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed
Vegetation ____, Soil ____ or Hydrology ____ naturally problematic
Are Normal Circumstances Present? Yes X No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	X	No
Wetland Hydrology Present?	Yes	No	X

Is the DP within a Wetland? **Yes** **No** X

Remarks: **Does not meet all wetland criteria**

VEGETATION

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species	Indicator Status	
1.				
2.				
3.				
4.				
5.				
	0	Total Cover		
Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
	0	Total Cover		
Herb Stratum (Plot size: 5')				
1. *Lolium multiflorum*	50	Y	UPL	5
2. *Trifolium repens*	30	Y	FACU	4
3. *Setaria faberi*	10	N	FACU	4
4. *Rumex crispus*	10	N	FAC	3
5.				
6.				
7.				
8.				
	100	Total Cover		
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
	0	Total Cover		

Remarks:

Dominance Test Worksheet
Number of dominant species that are OBL, FACW, or FAC: 0
Total number of dominant species across all strata: 2
Percent of dominant species that are OBL, FACW, or FAC: 0.00

Prevalence Index Worksheet

Total % cover of:			
OBL species	0	x 1	0
FACW species	0	x 2	0
FAC species	10	x 3	30
FACU species	40	x 4	160
UPL species	50	x 5	250
Total	100		440
		Prevalence Index:	4.40

Hydrophytic Vegetation Indicators:
____ Rapid Test for Hydrophytic Veg.
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0*
____ Morphological Adaptations*
____ Problematic Hydrophytic Vegetation*
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** **No** x

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-4	10YR 4/1	100					CL	
4-18	10YR 4/1	95	10YR 5/6	5	C	M	CL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

____ Histosol (A1)	____ Sandy Gleyed Matrix (S4)	____ Redox Dark Surface (F6)
____ Histic Epipedon (A2)	____ Sandy Redox (S5)	____ Depleted Dark Surface (F7)
____ Black Histic (A3)	____ Stripped Matrix (S6)	____ Redox Depressions (F8)
____ Hydrogen Sulfide (A4)	____ Dark Surface (S7)	____ Marl (F10)
____ Stratified Layers (A5)	____ Thin Dark Surface (S9)	**Indicators for Problematic Hydric Soils**
____ Depleted Below Dark Surface (A11)	____ Loamy Mucky Mineral (F1)	____ 2 cm Muck (A10)
____ Thick Dark Surface (A12)	____ Loamy Gleyed Matrix (F2)	____ 5cm Mucky Peat or Peat
____ Sandy Mucky Mineral (S1)	X Depleted Matrix (F3)	____ Other

Restrictive Layer (if observed): Type:
Depth (Inches):

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)		Secondary Indicators
____ Surface Water (A1)	____ Water Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ True Aquatic Plants (B14)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soil (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Guage or Well Data (D9)	____ Microtopographic Relief (D4)
____ Sparsely Vegetated Concave Surface	____ Other	____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

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

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

WETLAND DETERMINATION FORM-NORTHCENTRAL AND NORTHEAST REGION

Site: East Leipsic-Richland | City/County: Putnam County | Date: 13 Mar 2024 | Data Point: DP 3
Client: American Electric Power | State: OH | Section, Township, Range: Sec 30, T 2N, R 7E
Investigator(s): N. Houk, E. Holt | Landform: Lake Plains | Local Relief: Convex
Slope (%): 0-1 | Lat. 41.100444 | Long. -84.095102 | Datum: NAD 83 | NWI Class: N/A
Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes | Subregion (LRR or MLRA): LRR L
Climatic/hydrologic conditions typical for time of year? Y/N: Y
Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed
Vegetation ____, Soil ____ or Hydrology ____ naturally problematic
Are Normal Circumstances Present? Yes X No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes ____ No X

Is the DP within a Wetland? **Yes** **No** X

Remarks: **Does not meet all wetland criteria**

VEGETATION

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	Total Cover	
Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: 5')			
1. *Lolium multiflorum*	45	Y	UPL 5
2. *Setaria faberi*	30	Y	FACU 4
3. *Trifolium repens*	25	Y	FACU 4
4.			
5.			
6.			
7.			
8.			
	100	Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.			
2.			
	0	Total Cover	

Remarks:

Dominance Test Worksheet
Number of dominant species that are OBL, FACW, or FAC: 0
Total number of dominant species across all strata: 3
Percent of dominant species that are OBL, FACW, or FAC: 0.00

Prevalence Index Worksheet

Total % cover of:			
OBL species	0	x 1	0
FACW species	0	x 2	0
FAC species	0	x 3	0
FACU species	55	x 4	220
UPL species	45	x 5	225
Total	100		445
		Prevalence Index:	4.45

Hydrophytic Vegetation Indicators:
____ Rapid Test for Hydrophytic Veg.
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0*
____ Morphological Adaptations*
____ Problematic Hydrophytic Vegetation*
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** **No** x

SOIL

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

Depth (inches)	Matrix Color	Matrix %	Redox Features Color	%	Type*	Loc**	Texture	Remarks
0-7	10YR 4/1	100					CL	
7-18	10YR 4/1	95	10YR 5/6	5	C	M	CL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5)
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Dark Surface (S7)
____ Thin Dark Surface (S9)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Marl (F10)

Indicators for Problematic Hydric Soils
____ 2 cm Muck (A10)
____ 5cm Mucky Peat or Peat
____ Other

Restrictive Layer (if observed): Type:
Depth (Inches):

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (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
____ Water Stained Leaves (B9)
____ Aquatic Fauna (B13)
____ True Aquatic Plants (B14)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres on Living Roots
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soil (C6)
____ Thin Muck Surface (C7)
____ Guage or Well Data (D9)
____ Other

Secondary Indicators

____ Surface Soil Cracks (B6)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Stunted or Stressed Plants (D1)
____ Geomorphic Position (D2)
____ Microtopographic Relief (D4)
____ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches)
Water Table Present? Yes ____ No X Depth (inches)
Saturation Present? Yes ____ No X Depth (inches)

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

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

WETLAND DETERMINATION FORM-NORTHCENTRAL AND NORTHEAST REGION

Site: East Leipsic-Richland | City/County: Putnam County | Date: 13 Mar 2024 | Data Point: DP 4
Client: American Electric Power | State: OH | Section, Township, Range: Sec 30, T 2N, R 7E
Investigator(s): N. Houk, E. Holt | Landform: Lake Plains | Local Relief: Convex
Slope (%): 0-1 | Lat. 41.100581 | Long. -84.093209 | Datum: NAD 83 | NWI Class: N/A
Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes | Subregion (LRR or MLRA): LRR L
Climatic/hydrologic conditions typical for time of year? Y/N: Y
Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed
Vegetation ____, Soil ____ or Hydrology ____ naturally problematic
Are Normal Circumstances Present? Yes X No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes ____ No X

Is the DP within a Wetland? **Yes** **No** X

Remarks: **Does not meet all wetland criteria**

VEGETATION

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species	Indicator Status	
1.				
2.				
3.				
4.				
5.				
	0	Total Cover		
Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
	0	Total Cover		
Herb Stratum (Plot size: 5')				
1. *Setaria faberi*	50	Y	FACU	4
2. *Lolium multiflorum*	30	Y	UPL	5
3. *Trifolium repens*	20	Y	FACU	4
4.				
5.				
6.				
7.				
8.				
	100	Total Cover		
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
	0	Total Cover		

Dominance Test Worksheet
Number of dominant species that are OBL, FACW, or FAC: 0
Total number of dominant species across all strata: 3
Percent of dominant species that are OBL, FACW, or FAC: 0.00

Prevalence Index Worksheet

Total % cover of:			
OBL species	0	x 1	0
FACW species	0	x 2	0
FAC species	0	x 3	0
FACU species	70	x 4	280
UPL species	30	x 5	150
Total	100		430
		Prevalence Index:	4.30

Hydrophytic Vegetation Indicators:
____ Rapid Test for Hydrophytic Veg.
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0*
____ Morphological Adaptations*
____ Problematic Hydrophytic Vegetation*
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** **No** x

Remarks:

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-8	10YR 4/1	100					CL	
8-18	10YR 4/1	98	10YR 5/6	2	C	M	CL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5)
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Dark Surface (S7)
____ Thin Dark Surface (S9)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Marl (F10)

Indicators for Problematic Hydric Soils
____ 2 cm Muck (A10)
____ 5cm Mucky Peat or Peat
____ Other

Restrictive Layer (if observed): Type:
Depth (Inches):

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (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
____ Water Stained Leaves (B9)
____ Aquatic Fauna (B13)
____ True Aquatic Plants (B14)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres on Living Roots
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soil (C6)
____ Thin Muck Surface (C7)
____ Guage or Well Data (D9)
____ Other

Secondary Indicators

____ Surface Soil Cracks (B6)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Stunted or Stressed Plants (D1)
____ Geomorphic Position (D2)
____ Microtopographic Relief (D4)
____ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches)
Water Table Present? Yes ____ No X Depth (inches)
Saturation Present? Yes ____ No X Depth (inches)

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

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

WETLAND DETERMINATION FORM-NORTHCENTRAL AND NORTHEAST REGION

Site: East Leipsic-Richland | City/County: Putnam County | Date: 13 Mar 2024 | Data Point: DP 5
Client: American Electric Power | State: OH | Section, Township, Range: Sec 30, T 2N, R 7E
Investigator(s): N. Houk, E. Holt | Landform: Lake Plains | Local Relief: Convex
Slope (%): 0-1 | Lat. 41.100026 | Long. -84.092629 | Datum: NAD 83 | NWI Class: N/A
Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes | Subregion (LRR or MLRA): LRR L
Climatic/hydrologic conditions typical for time of year? Y/N: Y
Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed
Vegetation ____, Soil ____ or Hydrology ____ naturally problematic
Are Normal Circumstances Present? Yes X No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the DP within a Wetland? **Yes** **No** X

Remarks: **Does not meet all wetland criteria**

VEGETATION

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	Total Cover	

Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	Total Cover	

Herb Stratum (Plot size: 5')				
1. *Lolium multiflorum*	15	Y	UPL	5
2. *Taraxacum officinale*	10	Y	FACU	4
3. *Cirsium arvense*	10	Y	FACU	4
4. *Plantago lanceolata*	5	N	FACU	4
5. *Setaria faberi*	5	N	FACU	4
6.				
7.				
8.				
	45	Total Cover		

Woody Vine Stratum (Plot size: 5')		
1.		
2.		
	0	Total Cover

Dominance Test Worksheet
Number of dominant species that are OBL, FACW, or FAC: 0
Total number of dominant species across all strata: 3
Percent of dominant species that are OBL, FACW, or FAC: 0.00

Prevalence Index Worksheet

Total % cover of:			
OBL species	0	x 1	0
FACW species	0	x 2	0
FAC species	0	x 3	0
FACU species	30	x 4	120
UPL species	15	x 5	75
Total	45		195
		Prevalence Index:	4.33

Hydrophytic Vegetation Indicators:
____ Rapid Test for Hydrophytic Veg.
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0*
____ Morphological Adaptations*
____ Problematic Hydrophytic Vegetation*
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** **No** x

Remarks:

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-12	10YR 4/1	100					CL	
12-18	10YR 4/1	98	10YR 5/6	2	C	M	CL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5)
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Dark Surface (S7)
____ Thin Dark Surface (S9)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Marl (F10)

Indicators for Problematic Hydric Soils
____ 2 cm Muck (A10)
____ 5cm Mucky Peat or Peat
____ Other

Restrictive Layer (if observed): Type:
Depth (Inches):

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (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
____ Water Stained Leaves (B9)
____ Aquatic Fauna (B13)
____ True Aquatic Plants (B14)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres on Living Roots
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soil (C6)
____ Thin Muck Surface (C7)
____ Guage or Well Data (D9)
____ Other

Secondary Indicators

____ Surface Soil Cracks (B6)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Stunted or Stressed Plants (D1)
____ Geomorphic Position (D2)
____ Microtopographic Relief (D4)
____ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches)
Water Table Present? Yes ____ No X Depth (inches)
Saturation Present? Yes ____ No X Depth (inches)

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

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

WETLAND DETERMINATION FORM-NORTHCENTRAL AND NORTHEAST REGION

Site: East Leipsic-Richland | City/County: Putnam County | Date: 13 Mar 2024 | Data Point: DP 6
Client: American Electric Power | State: OH | Section, Township, Range: Sec 30, T 2N, R 7E
Investigator(s): N. Houk, E. Holt | Landform: Lake Plains | Local Relief: Convex
Slope (%): 0-1 | Lat. 41.099787 | Long. -84.093222 | Datum: NAD 83 | NWI Class: N/A
Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes | Subregion (LRR or MLRA): LRR L
Climatic/hydrologic conditions typical for time of year? Y/N: Y
Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed
Vegetation ____, Soil ____ or Hydrology ____ naturally problematic
Are Normal Circumstances Present? Yes X No ____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the DP within a Wetland? **Yes** **No** X

Remarks: **Does not meet all wetland criteria**

VEGETATION

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	Total Cover	

Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	Total Cover	

Herb Stratum (Plot size: 5')				
1. *Lolium multiflorum*	60	Y	UPL	5
2. *Setaria faberi*	20	Y	FACU	4
3. *Trifolium repens*	20	Y	FACU	4
4.				
5.				
6.				
7.				
8.				
	100	Total Cover		

Woody Vine Stratum (Plot size: 5')		
1.		
2.		
	0	Total Cover

Remarks:

Dominance Test Worksheet
Number of dominant species that are OBL, FACW, or FAC: 0
Total number of dominant species across all strata: 3
Percent of dominant species that are OBL, FACW, or FAC: 0.00

Prevalence Index Worksheet

Total % cover of:			
OBL species	0	x 1	0
FACW species	0	x 2	0
FAC species	0	x 3	0
FACU species	40	x 4	160
UPL species	60	x 5	300
Total	100		460
		Prevalence Index:	4.60

Hydrophytic Vegetation Indicators:
____ Rapid Test for Hydrophytic Veg.
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0*
____ Morphological Adaptations*
____ Problematic Hydrophytic Vegetation*
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** **No** x

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/1	100					CL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

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____ Stratified Layers (A5)
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
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____ Redox Depressions (F8)
____ Marl (F10)

Indicators for Problematic Hydric Soils
____ 2 cm Muck (A10)
____ 5cm Mucky Peat or Peat
____ Other

Restrictive Layer (if observed): Type:
Depth (Inches):

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (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
____ Water Stained Leaves (B9)
____ Aquatic Fauna (B13)
____ True Aquatic Plants (B14)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres on Living Roots
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soil (C6)
____ Thin Muck Surface (C7)
____ Guage or Well Data (D9)
____ Other

Secondary Indicators

____ Surface Soil Cracks (B6)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Stunted or Stressed Plants (D1)
____ Geomorphic Position (D2)
____ Microtopographic Relief (D4)
____ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches)
Water Table Present? Yes ____ No X Depth (inches)
Saturation Present? Yes ____ No X Depth (inches)

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

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