

Construction Notice Central – East Lima 345kV Transmission Line Cut-In Project



An **AEP** Company

BOUNDLESS ENERGYSM

PUCO Case No. 22-0779-EL-BNR

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

Submitted by:
Ohio Power Company

August 22, 2022

Construction Notice for Central – East Lima 345kV Transmission Line Cut-In Project

Construction Notice

Ohio Power Company Central – East Lima 345kV Transmission Line 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 Construction Notice.

The Company has identified the need to construct the Central – East Lima 345kV Transmission Line Cut-In Project (the “Project”) in York Township, Union County, Ohio. The Project consists of constructing looped service from the Central-East Lima 345 kV transmission line to provide a 345 kV interconnection to the Union Solar facility (OPSB Case Number 20-1405-EL-BGN), proposed by AEUG Union Solar, L.L.C. an Independent Power Producer (IPP). The PJM Queue Position is AF1-227. Two new steel pole structures will be installed along the existing centerline and two new 345 kV transmission lines will extend, less than 0.2 miles, into the proposed Bokes Creek Station (OPSB Case Number 22-0695-EL-BLN). The location of the Project is shown on Figure 1 and Figure 2 in Appendix A.

The Project meets the requirements for a CN because it is within the types of projects defined by item 1(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 property owned by the specific customer or the applicant.*

The Project has been assigned PUCO Case No. 22-0779-EL-BNR.

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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.

As part of the AF1-227 IPP connection facility, AEP Ohio Transmission Company, Inc. will construct the new Bokes Creek 345kV Station, a three-breaker ring bus station, that will include network attachment facilities required to connect to the new generation facility. The proposed connection is a 425 MW (295 MW Capacity) solar/storage generating facility in Union County, Ohio.

In order to connect the IPP to Bokes Creek Station, additional work is expected to be required on the Company's Central-East Lima 345 kV Transmission Line (Gunn Road – Marysville 345 kV circuit) adjacent to the Bokes Creek Station in order to bring these circuits into breaker positions at the station.

This project is related to AEP's obligation to connect AF1-227 per the PJM IPP Tariff. The project is listed in the 2022 AEP Ohio Transmission Company LTFR document, page 99 and 100 (Form FE-T10, Planned Transmission Lines), 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 line and proposed relocation is shown in Figure 1 of Appendix A.

B(4) Alternatives Considered

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

The Project is located on land currently owned by a third party, but under option to purchase by the IPP. The Bokes Creek Station portion of the overall property will be transferred to the Company. Based on the IPP's proposed development and existing facilities in the area, the proposed location is the most suitable and least impactful for the Project. Other alternatives would require impacting neighboring properties, as opposed to remaining entirely on the customer or Company's property, and would add additional transmission length to the associated projects without any additional benefit. The proposed Project will result in no impacts to wetlands, streams, or known cultural resource areas eligible for the National Register of Historic Places (NRHP). Therefore, this alternative represents the most suitable location and is the most appropriate solution for meeting the Company's and IPP's needs in the area.

B(5) Public Information Program

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

The Company maintains a website (<http://aeptransmission.com/ohio/>) on which an electronic copy of this CN is available. A letter including project and filing details will be sent to officials and each property owner and affected tenant within the planned site or contiguous to the planned site within seven days of filing. An electronic copy of the CN will be served to the public library in each political subdivision affected by this Project. The Company also retains land agents who will discuss Project timelines, construction and restoration activities with affected owners and tenants.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in December 2022, and the anticipated in-service date will be in October 2023.

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 York Center, Ohio quadrangle. Figure in Appendix A show the Project Area on recent aerial photography, dated 2019, as provided by the Ohio Statewide Imagery Program (OSIP) at a scale of 1:2,400 scale (1 inch equals 200 feet).

To visit the Project site from Columbus, Ohio, take I-70 West to I-270 North (Exit 93) toward Cleveland. Continue approximately 9 miles to Exit 17B and merge onto OH-161 West/U.S. 33 West toward Marysville. Stay on U.S. 33 for approximately 17 miles before taking Exit 92 onto OH-31 North toward Kenton. Turn right onto OH-31/North Maple Street and continue north for 14.7 miles. Turn left onto Treaty Line Road. The Project is located approximately 1.8 miles west of OH-31 on the left (south) just past Hoover-Moffit Road at the approximate address of 22041 Treaty Line Road, West Mansfield, Ohio 43358 at latitude 40.438698, longitude -83.483458.

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.

All work activities are proposed on Parcel 3800020090000, which is currently owned by a private landowner. The IPP currently holds an option to purchase a portion of the property on which the Project will be situated. The Project is entirely within the Company's existing ROW or property under option for purchase.

B(9) Technical Features

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

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

Line Asset Name:	Central-East Lima 345kV
Ownership:	Ohio Power Company
Voltage:	345 kV
Conductors:	(3) 2156 kcm ACSR 84/19 (Bluebird) (new in/out of station) (3) 1275 kcm ACSR/PE 54/19 (existing line)
Static Wire:	(2) 159 kcm ACSR 12/7 (Guinea) (new in/out of station)
Optical Ground Wire:	(1) 0.646" 72 fiber count (existing line terminating at Tower 151) (1) 0.646" 96 fiber count (new from Towers 151 to 154)
Insulators:	Polymer
ROW Width:	150 feet
Structure Type:	(2) Single Circuit, Steel Monopole Deadend, custom concrete pier foundation

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$1,900,000 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 Concord Township, Union County, Ohio. Land use in the Project area consists of agricultural fields, wooded areas, and scattered residences. 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 approximately 1.1-acre proposed Project footprint, adjacent areas, and much of the surrounding vicinity are located on former agricultural land. Much of this area will be utilized for the approved IPP solar generation facility. The Union County Auditor provided a list of parcels registered as Agricultural District Land on August 2, 2022. None of the Project Area properties were identified as an Agricultural District Land parcel.

B(10)(c) Archaeological and Cultural Resources

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

The Company’s consultant completed a Phase I Cultural Resource Management Investigation of the Project Area. No further investigation was recommended. The Ohio Historic Preservation Office (“SHPO”) provided comments regarding the Project in an April 8, 2022 letter response. SHPO referenced a Memorandum of Agreement (MOU) between SHPO and the IPP to avoid an archaeological site, including a 25-foot buffer. This archaeological site is approximately 300 feet beyond the proposed limits of disturbance. The Project will not impact this archaeological site. SHPO requested a copy of the plans that show the aforementioned archaeological site is being avoided. Once SHPO has the plans, they agreed that the Project will not impact any other cultural resources eligible for listing on the NRHP and no additional coordination is necessary prior to construction. A copy of the April 8, 2022 coordination 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 storm water discharges under General Permit OHCD000005. The Company will implement and maintain best management practices as outlined in the Project-specific Storm Water Pollution Prevention Plan (“SWPPP”) to minimize erosion control sediment to protect surface water quality during storm events.

No streams or wetlands are located in the proposed work areas (see Appendix D). Therefore, the Project will not require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or a Section 401 Water Quality Certification from the OEPA.

The FEMA Flood Insurance Rate Map was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project Area (specifically, map number **39159C0130D**). Based on this mapping, no mapped FEMA floodplains are located in the Project Area. Therefore, no floodplain permit will be required for this Project.

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

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

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

As part of the ecological study completed for the Project, a coordination letter was submitted to the USFWS Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. The January 12, 2022 response letter from the USFWS (see Appendix C) indicated that due to the Project type, size, and location, USFWS does not anticipate adverse effects to any federally endangered, threatened, or proposed species or proposed or designated critical habitat.

A coordination letter was submitted to the Ohio Department of Natural Resources (“ODNR”) Division of Wildlife (“DOW”) Ohio Natural Heritage Program (“ONHP”) and the ODNR - Office of Real Estate in December 2021, 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 received on January 28, 2022 (see Appendix C).

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According to the ODNR-DOW, the Project is within the range of the Indiana bat, northern long-eared bat, little brown bat, and tricolored bat. The ODNR recommends cutting between October 1 and March 31, if necessary. No tree clearing is anticipated for the Project. Therefore, no additional coordination with ODNR is required.

The ODNR-DOW indicated that the Project is within the range of two fish and seven mussel species listed as species of concern, threatened, or endangered at the state and or federal level. Due to no in-water work and habitat, these species are not anticipated to be impacted by the Project.

The ODNR-DOW indicated that the Project is within the range of the American bittern, king rail, lark sparrow, northern harrier, and loggerhead shrike, state endangered birds, as well as the least bittern, a state threatened species. The habitat for the aforementioned species was not identified within the project area; therefore, the Project is not likely to impact these species.

B(10)(f) Areas of Ecological Concern

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

The ODNR-DOW response indicated that 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 (see Appendix C).

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 **39159C0130D**). Based on these maps, no mapped FEMA floodplains are located in the Project area.

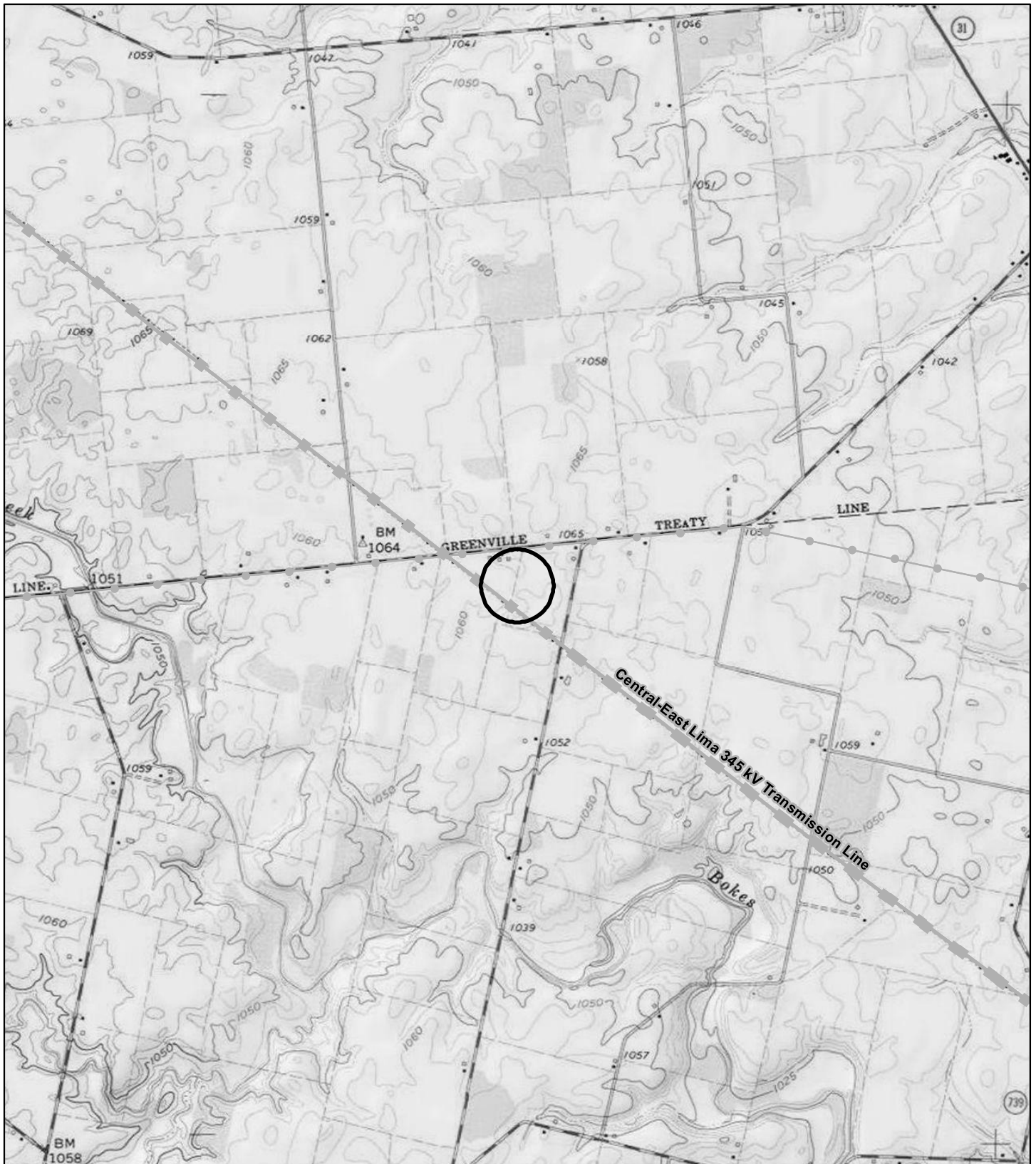
Wetland and stream delineation field surveys were completed within the Project area by the Company's consultant in March 2022. No wetlands or streams were identified within in the proposed work areas (see Figure 3 in Appendix D).

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 (345 kV)
-  Existing Transmission Line (138 kV)

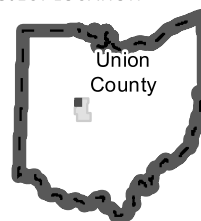
Data Sources: AEP, USGS 7.5' Topographic Quadrangles (York Center, Ohio and West Mansfield, Ohio)

Ohio State Plane South NAD 1983



August 16, 2022

PROJECT LOCATION

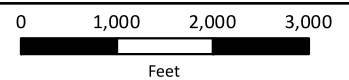


UNION COUNTY, OHIO


**FIGURE 1
TOPOGRAPHIC OVERVIEW**



Central – East Lima
345kV Transmission
Line Cut-In Project





<ul style="list-style-type: none"> --- Proposed 345 kV Transmission Line Proposed Bokes Creek Station (Filed Separately) Proposed IPP Station Existing Transmission Line Parcel Boundary 	<p>Data Sources: AEP, Union County Auditor (2019)</p> <p>Ohio State Plane South NAD 1983</p> <p>August 16, 2022</p>	<p>PROJECT LOCATION</p>  <p>UNION COUNTY, OHIO</p>	<p>FIGURE 2 PROJECT AERIAL MAP</p> <div>  <p>Central – East Lima 345kV Transmission Line Cut-In Project</p> </div> <div> <p>0 100 200 300</p> <p>Feet</p> </div>
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Appendix B Agency Coordination



In reply, refer to
2022-UNI-54221

April 8, 2022

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

RE: Bokes Creek 345kV Station (Greenfield) Project, York Township, Union County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on March 11, 2022 regarding the proposed Bokes Creek 345kV Station (Greenfield) Project, York Township, Union County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Cultural Resource Management Investigations for the 18.8 ha (46.5 ac) Bokes Creek 345kV Station (Greenfield) Project in York Township, Union County, Ohio* by Ryan J. Weller & Scott McIntosh (Weller & Associates, Inc. 2022).

A literature review, visual inspection, and surface collection was completed as part of the investigations. A portion of this project area was recently investigated for cultural resources as part of the Union Solar Development Project. However, those investigations happened so recently, the survey boundary and Ohio Archaeological Inventory (OAI) site locations have not been added to the SHPO GIS website yet. With this additional information, five (5) previously identified archaeological sites are located within the project area, Ohio Archaeological Inventory (OAI)# 33UN0179, 33UN0688, 33UN0690, 33UN0702 and 33UN0703. OAI#33UN0179, 33UN0688, 33UN0702 and 33UN0703 were determined not eligible for listing in the National Register of Historic Places (NRHP). OAI#33UN0690 was recommended potentially eligible for listing in the NRHP. A Memorandum of Understanding (MOU) between our office and AEUG Union Solar, LLC (executed November 10, 2021) established an avoidance plan around the archaeological site. Our office requests confirmation from AEP that this site will also be avoided by AEP's proposed activities in the area. If this site cannot be avoided, additional archaeological investigation will need to take place. Information regarding the archaeological site will be provided to Weller & Associates, Inc. for reference.

Two (2) new archaeological sites were identified during survey, OAI# 33UN1057 and 33UN1058. Neither site is recommended eligible for listing in the NRHP. Our office agrees with this recommendation and no additional archaeological investigation is needed.

A literature review and field survey were completed as part of the investigations. Seven (7) properties with a total of eleven (11) extant architectural resources 50 years of age or older were identified within the Area of Potential Effects during the field survey. It is Weller's recommendation that none of these properties are eligible for listing in the National Register of Historic Places. Our office agrees with Weller's recommendations regarding eligibility. No further architectural survey is recommended.

In summary, our office requests confirmation of avoidance at OAI#33UN0690. If you have any questions, please contact

me at (614) 298-2022, or by e-mail at khorricks@ohiohistory.org, or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Krista Horrocks', with a stylized flourish at the end.

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1092468

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

From: Ohio, FW3
To: Molnar, Maggie
Cc: Falkinburg, Brad; Grant S Stuller
Subject: [EXTERNAL] AEP's Bokes Creek Project, Washington and York Townships, Union County, Ohio
Date: Wednesday, January 12, 2022 2:55:58 PM
Attachments: image.png
image.png

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.



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



TAILS# 03E15000-2022-TA-0599

Dear Ms. Molnar,

The U.S. Fish and Wildlife Service (Service) 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 effects to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat. If there are any project modifications during the term of this action, or additional information for listed or proposed species or their critical habitat becomes available, or if new information reveals effects of the action that were not previously considered, then please contact us for additional project review.

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

Sincerely,

Patrice Ashfield
Field Office Supervisor



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief

2045 Morse Road – Bldg. E-2

Columbus, OH 43229

Phone: (614) 265-6621

Fax: (614) 267-4764

January 28, 2022

Maggie Molnar
TRC Companies
781 Science Boulevard, Suite 200
Gahanna, Ohio 43230

Re: 22-0007; AEP's Bokes Creek Project

Project: The proposed project involves the installation of a new 345 kV Station (Bokes Creek Station) and a cut in to the Central-East Lima 345kV T-Line.

Location: The proposed project is located in Washington and York Townships, Union County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has the following data within a one-mile radius of the project area:

Western Creek Chubsucker (*Erimyzon claviformis*), SC

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

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

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federal endangered, and FT = federal threatened.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 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 Erin Hazelton at Erin.hazelton@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 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 Erin Hazelton for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

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

Federally Endangered

nuffbox (*Epioblasma triquetra*)

clubshell (*Pleurobema clava*)

Northern riffleshell (*Epioblasma torulosa rangiana*)

rayed bean (*Villosa fabalis*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)

State Threatened

pondhorn (*Uniomereus tetralasmus*)

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

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

State Threatened

the Tippecanoe darter (*Etheostoma Tippecanoe*)

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

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

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

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

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands. If thickets or other types of dense shrubbery habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species'

nesting period of April 15 through July 31. If this habitat will not be impacted, the 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. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

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 (Acting)

Appendix C Ecological Report

Ecological Survey Report

April 2022

TRC Project No. 466308.0000

Bokes Creek Project

Union County, Ohio

Prepared For:

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1.0 Project Description

On behalf of American Electric Power (AEP), TRC Environmental Corporation (TRC) conducted a wetlands and waterways delineation and a threatened and endangered species habitat survey for AEP's Bokes Creek Project (Project). The Project involves the installation of a new 345 kV Station (Bokes Creek Station) and a cut in to the Central – East Lima 345kV T-Line. The proposed Project Study Area is approximately 44.19 acres, located in Washington and York Townships, Union County, Ohio (Appendix A, Figure 1). The tax parcel numbers within the Study Area include 3800020140000, 3800020151000, 3800020090000, 3800020080000, 3500140161000, 3500130250000, 3500130260000. The Project is located at the approximate coordinates (Northwest Terminus: 40.445149, -83.496447), (Southeast Terminus: 40.436369, -83.481414). As depicted in the attached mapping, the proposed Project Study Area (Appendix A, Figure 2) occurs within existing maintained utility and road right-of-way (ROW) located within agricultural land. The Project Study Area falls within the Virginia Military District, therefore does not have a section, township, or range associated with the area.

The purpose of the wetlands and waterways delineation was to determine the current location and extent of wetlands and waterways within the designated Project Study Area. The purpose of the threatened and endangered species habitat assessment is to document whether potentially suitable habitat for state and federally-listed threatened and endangered species is present within the Project Study Area. Our study is presented here in terms of methodology, results, and conclusions.

The wetlands and waterways delineation field investigation and threatened and endangered species habitat survey were conducted by TRC scientists Matthew Ray, Professional Wetland Scientist (PWS) and Thomas Radford on March 4th, 2022. Matthew was the lead investigator and is the lead author of this report.

1.1 Agency Regulatory Authority

The wetlands and/or waterways identified in this report may be subject to federal regulation under the jurisdiction of the United States (U.S.) Army Corps of Engineers (USACE), state regulation under the jurisdiction of Ohio Environmental Protection Agency (OEPA), and local jurisdiction under county, town, city, or village.

2.0 Methodology

To complete the wetlands and waterways delineation and evaluation of the Project Study Area, TRC followed the guidelines and methods outlined by the USACE and OEPA, as described within this section.

2.1 USACE Wetland Delineation

Matthew Ray, PWS and Thomas Radford conducted the wetlands and waterways field investigation on March 4th, 2022. The investigation was conducted within the predetermined Project Study Area (Appendix A, Figure 1 and Figure 2), which was developed in accordance with the Project location information provided by AEP. Wetlands and waterways delineations were conducted using the Federal Routine Determination Method presented in the *1987 Manual* and

Regional Supplement, including clarifications and interpretations provided in the March 6, 1992 guidance memorandum, and the USACE and Environmental Protection Agency (EPA) guidance on jurisdictional forms (EPA and USACE, 2007 and USACE, 2008). USACE Wetland Determination Data Forms – Midwest Region; LRR Central Feed Grains and Livestock Region (LRR M), Indiana and Ohio Till Plains, Northeastern Part (MLRA 111B) subregion are provided within Appendix C.

If the soils, hydrology, and vegetation characteristics at a survey point indicated that it was within a wetland, the boundary of the wetland was determined, and the approximate boundary was flagged using wetland flagging and recorded using a handheld Trimble R1 Receiver. Areas observed to have problematic or difficult situations were delineated utilizing the procedures identified in the *Regional Supplement*, Section 5 – “Difficult Wetland Situations in the Midwest.” Data from the Global Positioning System (GPS) survey was downloaded and integrated into a Geographical Information Systems (GIS) database for the proposed work areas and used to make the accompanying figures. During the field investigation, all data collection procedures for resources and their associated assets (i.e. culverts) within the Project Study Area were followed. Identified wetlands were classified according to Cowardin et al. (1979).

2.2 OEPA Ohio Rapid Assessment Method

According to the Ohio Wetland Water Quality Standards, a wetland quality category (Category 1, Category 2, or Category 3) must be assigned for each wetland if a project will require discharge of dredged or fill material into jurisdictional wetlands. ORAM categories are based on scoring breakpoints from Table 2 of the ORAM v. 5.0 Quantitative Score Calibration; scores falling within a “gray zone” or “modified” category were rounded up. In general, Category 1 wetlands are considered to be “low quality” while Category 3 resources are considered “high quality.”

The OEPA has developed the Ohio Rapid Assessment Method (ORAM), which can be utilized to evaluate wetland habitat quality based on the apparent functions and values of the wetland resource. The two primary components of the ORAM are the Narrative Rating and the Quantitative Rating. TRC completed ORAM (Version 5.0) Quantitative Rating forms for all of the wetland resources identified within the Project Study Area. Each delineated wetland resource received a provisional category designation based on the results of the ORAM Narrative and Quantitative ratings and review of narrative criteria in the Ohio Administrative Code (OAC) 3745-1-54(C) (Mack, 2000).

2.3 USACE Waterbody Identification

During the field work waterbody features including streams, ponds, lakes, etc. were investigated. Streams within the Project Study Area were identified by the presence of an ordinary high-water mark (OHWM) and scoured channel or defined bed and banks. All streams identified in the Project Study Area that were wider than five feet were demarcated via GPS from bank-to-bank. Streams that were less than five feet wide had the centerline demarcated.

Identified streams were evaluated utilizing OEPA approved methods for stream habitat assessment which include the Qualitative Habitat Evaluation Index (QHEI) (Ohio EPA, 2006) or the Headwater Habitat Evaluation Index (HHEI) (Ohio EPA, 2020) assessment method. These approved assessment methods provide an empirical, quantified evaluation of streams as required by the State of Ohio for permitting and mitigation purposes. These methods assess stream habitat to provide a qualitative index (score) to determine the level of compensatory mitigation that may be needed for impacts to waters of the U.S.

Use of the QHEI or HHEI assessment method is determined based on the size of the stream's drainage area and/or the stream's pool depths. Where coverage was available, the drainage area was calculated using automated basin characteristics from StreamStats v 4.8.1: Ohio (USGS, 2022).

Following OEPA guidance, streams with a drainage area of greater than 1.0 square mile (2.6 square kilometers), or which have pools with maximum depths over 15.8 inches (40.0 centimeters), as determined by measuring pool depth within the stream, were to be evaluated using the QHEI. Data on these streams were collected on the QHEI form provided by the OEPA. The QHEI is composed of six principal metrics: substrate, instream cover, channel morphology, riparian zone and bank erosion, pool/glide and riffle-run quality, and map gradient. Each metric is scored separately and summed to obtain the total QHEI score. Using the scoring methods associated with these forms, the stream is placed into the following general narrative ranges, dependent on stream size; for smaller streams (≤ 20 sq. mi): Excellent >70 , Good 55-69, Fair 43-54, Poor 30-42, and Very Poor <30 ; for larger streams (>20 sq. mi): Excellent >75 , Good 60-74, Fair 45-59, Poor 30-44, and Very Poor <30 .

The HHEI is utilized to score streams with a drainage area of <1.0 square mile (2.6 square kilometers). Data on these streams were collected on the HHEI forms, provided by the OEPA. Observational data regarding the physical nature of the stream corridor including stream flow, riparian zone land use and buffer width, and channel modification were recorded. Measurements included bankfull width, maximum pool depth and substrate composition.

Streams identified during the course of the investigation were classified as perennial, intermittent, or ephemeral waterways in accordance with the rationale defined by the USACE Huntington District. Additionally, the streams were evaluated with their applicable habitat assessment form and given a score, which may be used to justify mitigation ratios through the Section 404/401 permitting process.

The Project Study Area was also investigated for areas that were considered "open water" by the USACE. According to the USACE an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an OHWM can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" may include rivers, streams, lakes, and ponds. Artificial "open water" features may include stormwater retention basins, fish hatchery ponds, drainage tile pump stations, etc.

2.4 Desktop Review

Prior to conducting fieldwork, several maps were reviewed including the United States Geological Survey (USGS) 7.5' Quadrangle maps, Natural Resource Conservation Service (NRCS) Soil Survey Map, National Wetlands Inventory (NWI) Map, National Hydrography Dataset (NHD), and aerial photographs. These sources were used to identify areas likely to contain wetlands and waterways.

TRC completed a state and federally-listed species habitat survey in conjunction with a wetland and waterway delineation within the Project Study Area. Prior to completing the habitat survey, TRC submitted an Environmental Review Request, including the Project Study Area, to the Ohio Department of Natural Resources (ODNR) and a Technical Assistance Request to the U.S. Fish and Wildlife Services (USFWS) to identify state- and federally-listed species occurrences near the Project Study Area.

2.5 On-Site Field Investigation

Areas within the Project Study Area were evaluated in the field by TRC scientists Matthew Ray, PWS and Thomas Radford on March 4th, 2022. Sample data points were collected in areas exhibiting wetland or upland characteristics to document the presence and/or absence of wetlands and to provide support for the delineated wetland boundaries. At each sample point, data were collected to document the vegetation and hydrophytic vegetation indicators, soil profile and hydric soil indicators, and wetland hydrology indicators.

Plant species were identified at each sample point and their wetland indicator status; OBL, FACW, FAC, FACU, or UPL; was determined by referencing The National Wetland Plant List. Soil pits were dug to the depth needed to document a hydric soil indicator or confirm the absence of indicators. Soil color was determined using a Munsell soil color chart. The sample point plots and soil pits were evaluated for presence of wetland hydrology indicators.

In addition to the wetland and waterway delineation field investigations, potentially suitable habitat for threatened and endangered species was evaluated.

3.0 Results

3.1 Desktop Review

The 5-Foot Contour Map (Appendix A, Figure 1) showing an elevation of approximately 1,060 feet above sea level. Topography within the Project Study Area shows gently undulating slopes.

According to the NRCS Soil Survey map (Appendix A, Figure 2b) six (6) mapped soils unit are located within the Project Study Area. Mapped soil units that were predominantly non-hydric comprised 100% of the Project Study Area. The soils mapped within the Project Study Area are listed on Table 1 below.

Table 1. Mapped Soil Units

Map Unit Symbol	Soil Series Name	Drainage Class	Hydric Soil Type	Acres within Project Study Area	% of Project Study Area
Ble1A1	Blount silt loam, end moraine, 0 to 2 percent slopes	Somewhat poorly drained	Non-Hydric with Hydric Inclusions	26.54	56.4%
Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	Somewhat poorly drained	Non-Hydric with Hydric Inclusions	0.98	2.1%
Gwe1B1	Glynwood silt loam, end moraine, 2 to 6 percent slopes	Moderately poorly drained	Non-Hydric with Hydric Inclusions	9.49	20.2%
Gwe1B2	Glynwood silt loam, end moraine, 2 to 6 percent slopes, eroded	Moderately poorly drained	Non-Hydric with Hydric Inclusions	1.63	3.5%
Pk	Pewamo silty clay loam, 0 to 1 percent slopes	Very poorly drained	Hydric	1.28	2.7%
We	Wetzel silty clay loam	Poorly drained	Hydric	7.17	15.1%
Total				47.19	100

The NHD, NWI, and FEMA Floodplain Map (Appendix A, Figure 2a) depicted no NWI features or NHD flowlines within the Project Study Area. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels 39159C0130D and 39159C0140D (eff. date 12/16/2008), the proposed Project Study Area is not located within a mapped 100-year floodplain.

A review of aerial imagery from Figure 2 shows an existing maintained utility line ROW and agricultural land within the Project Study Area.

3.2 On-Site Field Investigation

3.2.1 Site Description

The Project Study Area is located within maintained utility and road ROW located within agricultural land.

The land use and vegetative communities identified within the Project Study Area are defined below.

- Crop-maintained agricultural areas, which are generally comprised of soybean (*Glycine max*), corn (*Zea mays*), winter wheat (*Triticum aestivum*), and perennial ryegrass (*Lolium perenne*). Additionally, these areas contain maintained utility ROW.

3.2.2 Uplands

Upland plant communities were observed in the Project Study Area. Upland data points were taken to verify wetland absence. While on-site, TRC biologists documented upland data points to confirm absence of wetlands. Representative photographs of the upland data points are provided in Appendix B. Associated wetland determination forms are located in Appendix C and additional information on the location of these upland data points can be found on Figure 3.

3.2.3 Wetlands

During the investigation, no wetlands were identified or delineated within the Project Study Area. Representative photographs of the Project Study Area are provided in Appendix B.

3.2.4 Other Aquatic Resources

During the field investigation, no streams or waterbodies were identified or delineated within the Project Study Area. However, four (4) non-jurisdictional ditches were identified and delineated within the Project Study Area. Information associated with these non-jurisdictional ditches can be found in Table 2. Representative photographs of the delineated features are provided in Appendix B. Additional information on the location of these non-jurisdictional ditches can be found on Figure 3.

Table 2: Other Delineated Aquatic Resources Summary Table

Resource ID ¹	OHWM Present?	Approximate Wetted Width (feet)	Provisional Jurisdictional Status ²	Approximate Delineated Length within Project Study Area ³ (feet)
D-MRR-1	No	1	Non-Jurisdictional	1,161
D-MRR-2	No	1	Non-Jurisdictional	1,149
D-MRR-3	No	1.5	Non-Jurisdictional	234
D-MRR-4	No	1.5	Non-Jurisdictional	355
			Total	2,899

¹TRC Resource Identification.

²Jurisdiction is based upon field observations and mapping review of apparent connectivity or adjacency of the resources to Waters of the United States and the assumption that a preliminary jurisdictional determination process will be utilized for the project.

³Approximate length is rounded to the nearest foot, based upon GPS data.

3.2.5 Threatened and Endangered Species

Based on responses from the ODNR Environmental Review, USFWS Technical Assistance Request, and unofficial USFWS IPaC review, field observations, and a review of habitat requirements of the 21 state and federally-listed species for Union County, Ohio. TRC concludes that potentially suitable habitat is not present within the Project Study Area for none of the 21 listed-species including the bald eagle (*Haliaeetus leucocephalus*) (see Table 3 below). This does not suggest that the 21 listed species for Union County, Ohio are not present within the Project Study Area; only that suitable habitat is not present within the Project Study Area to support their presence.

Project specific threatened and endangered species information was requested from the USFWS on January 3, 2022 and received on January 12, 2022. According to the USFWS response, due to the Project type, size, and location, there are no anticipated adverse effects to the federally endangered, threatened, or proposed candidate species or proposed or designated critical habitat (See Appendix D). Additionally, an Environmental Review from ODNR-Division of Wildlife (DOW) was requested and received on January 28, 2022 (See Appendix D). It is noted that suitable habitat was not observed for the 21 state and federally-listed species listed in Table 3 during the field review.

During field investigations, there was no suitable habitat for any threatened and endangered species, as described in Table 3 present within the Project Study Area.

Table 3. Threatened and Endangered Species Habitat Survey Results

Common Name	Scientific Name	State Listed Status ¹	Federal Listed Status ¹	Typical Habitat	Suitable Habitat Present?	Avoidance Dates	Agency Comments	Potential Impacts
Mammals								
Indiana bat	<i>Myotis sodalis</i>	E	E	Hibernacula = Caves and mines; Maternity and foraging habitat = small stream corridors with well-developed riparian woods; upland forests.	No	April 1 through September 30	If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact this species.	No
Northern long-eared bat	<i>Myotis septentrionalis</i>	E	T	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. During late spring and summer roosts and forages in upland forests.	No	April 1 through September 30	If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact this species.	No
Little brown bat	<i>Myotis lucifugus</i>	E	NA	During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in	No	April 1 through September 30	If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely	No

Common Name	Scientific Name	State Listed Status ¹	Federal Listed Status ¹	Typical Habitat	Suitable Habitat Present?	Avoidance Dates	Agency Comments	Potential Impacts
				crevices and cavities, or in the leaves.			to impact this species.	
Tricolored bat	<i>Perimyotis subflavus</i>	E	NA	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.	No	April 1 through September 30	If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact this species.	No
Birds								
American bittern	<i>Botaurus lentiginosus</i>	E	NA	Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps.	No	May 1 through July 31	If the species' typical habitat will be impacted, construction should be avoided in this habitat during the species' nesting period. If the species' typical habitat is not impact, the project is not likely to impact this species.	No
King rail	<i>Rallus elegans</i>	E	NA	Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation.	No	May 1 through July 31	If the species' typical habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the project is not likely to impact this species.	No
Bald eagle	<i>Haliaeetus leucocephalus</i>	NA	SC	The bald eagle nests during its breeding season in virtually any kind of American wetland habitat such as seacoasts, rivers, large lakes or marshes or other large bodies of open water with an abundance of fish. Studies have shown a preference for bodies of water with a circumference greater than 11 km (7 mi), and	No	October 1 and January 31	N/A	No

Common Name	Scientific Name	State Listed Status ¹	Federal Listed Status ¹	Typical Habitat	Suitable Habitat Present?	Avoidance Dates	Agency Comments	Potential Impacts
				lakes with an area greater than 10 km ² (4 sq mi) are optimal for breeding bald eagles.				
Lark sparrow	<i>Chondestes grammacus</i>	E	NA	This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges.	No	May 1 through July 31	If the species' typical habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If the species' typical habitat is not impacted, the project is not likely to impact this species.	No
Least bittern	<i>Ixobrychus exilis</i>	T	NA	This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water.	No	May 1 through July 31	If the species' typical habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If the species' typical habitat will not be impacted, the project is not likely to impact this species.	No
Loggerhead shrike	<i>Lanius ludovicianus</i>	E	NA	The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands.	No	April 1 through July 31	If the species' typical habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through July 31. If the species' typical habitat will not be impacted, the project is not likely to impact this species.	No

Common Name	Scientific Name	State Listed Status ¹	Federal Listed Status ¹	Typical Habitat	Suitable Habitat Present?	Avoidance Dates	Agency Comments	Potential Impacts
Northern harrier	<i>Circus hudsonis</i>	E	NA	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.	No	April 15 through July 31	If of the species' typical, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If the species' typical habitat will not be impacted, the project is not likely to impact this species.	No
Fish								
Western Creek Chubsucker	<i>Erimyzon claviformis</i>	SC	NA	Inhabits silt-, sand- and gravel-bottomed pools of clear headwaters, creeks and small rivers, usually near submergent vegetation. Occasionally found in lakes.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Tippecanoe darter	<i>Etheostoma tippecanoe</i>	T	NA	Inhabit warm rivers and large streams, where they occur in clean riffles and runs having significant areas of gravel substrate, and usually with some cobble or rubble.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these or other aquatic species.	No
Freshwater Mussels								
Snuffbox	<i>Epioblasma triquetra</i>	E	E	This mussel is usually found in areas of stable sand and cobble in turbid water within riffles of large creeks. The snuffbox will bury itself in the bottom substrate to depths of up to four inches.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Clubshell	<i>Pleurobema clava</i>	E	E	This mussel prefers clean, loose sand and gravel in medium to small rivers and streams.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No

Common Name	Scientific Name	State Listed Status ¹	Federal Listed Status ¹	Typical Habitat	Suitable Habitat Present?	Avoidance Dates	Agency Comments	Potential Impacts
Northern riffleshell	<i>Epioblasma torulosa rangiana</i>	E	E	Prefers stable sand and cobble in the moving water of large creeks. Not a pond or lake species.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Rayed bean	<i>Villosa fabalis</i>	E	E	This mussel species prefers sand and cobble within the riffles of high quality creeks and small rivers. The rayed-bean will bury itself, in water weeds, sand and gravel within riffles.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T	T	This species occurs in high-water quality creeks and small rivers, often found unburied along the water's edge.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Elephant-ear	<i>Elliptio crassidens crassidens</i>	E	NA	This mussel is usually found in stable cobble and muddy sand in rivers. Commonly found in smaller creeks.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Pondhorn	<i>Unio merus tetralasmus</i>	T	NA	This mussel species prefers loose and unconsolidated substrate. Likely found in muddy or sandy within small to large streams.	No	N/A	Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Insects								
Monarch butterfly	<i>Danaus plexippus</i>	NA	C	In the spring and summer, the monarch butterfly's habitat is open fields and meadows with milkweed. In winter it can be found on the coast of southern California and at high altitudes in central Mexico.	No	N/A	Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species	No

Common Name	Scientific Name	State Listed Status ¹	Federal Listed Status ¹	Typical Habitat	Suitable Habitat Present?	Avoidance Dates	Agency Comments	Potential Impacts
							or proposed or designated critical habitat.	
¹ Federal/State Status: E=Endangered, T=Threatened, C=Candidate, SC=Species of Concern, X=Extirpated, NA=Not Applicable								

4.0 Conclusions

Based on the field investigation completed by TRC, no wetlands and no streams were delineated within the Project Study Area. However, four (4) non-jurisdictional ditches were identified within the Project Study Area. See Appendix B for representative site photographs and Appendix C for upland data forms.

Wetlands and other aquatic resources (if identified and delineated) in this report are a professional finding based on current regulatory policy accepted by the USACE and OEPA methodology at the time the resources were delineated. Unknown and future conditions that affect observations of field indicators or change in interpretation of regulatory policy or methods may modify future findings.

The ultimate authority to determine the location of the wetland boundary and jurisdictional authority over the wetlands and other aquatic resources identified in this report resides with the USACE and OEPA. Decisions made by staff of these regulatory agencies may result in the addition of the wetland or other aquatic resource boundaries shown in this report. In addition, the USACE and OEPA have jurisdictional authority to determine which features are exempt from regulation, which may include stormwater ponds and conveyance features. Furthermore, municipalities, townships and counties may have local zoning authority over certain areas or types of wetlands and waterways. The determination that a wetland or waterway is subject to regulatory jurisdiction is made independently by the agencies.

Any activity in a delineated wetland or below the OHWM of other aquatic resources may require USACE permits and OEPA Water Quality Certification, and local government permits. It is noted that the Project Study Area is located within an “Eligible” area according to OEPA’s Stream Eligibility for Nationwide Permit Program (OEPA, 2017) and therefore is eligible for coverage under the OEPA 401 Water Quality Certification (WQC) for Nationwide Permits (Appendix A, Figure 4). If the Client proceeds to change, modify or utilize the property in question without obtaining authorization from the appropriate regulatory agency, it will be done at the Client’s own risk and TRC shall not be responsible or liable for any resulting damages.

Based upon the on-site investigation the site was not observed to contain tree covered areas that could be considered suitable summer habitat for the Indiana bat, northern long-eared bat, little brown bat, or tricolored bat. Additionally, no wetlands, streams, or other ecologically sensitive areas that may contain suitable habitat for state and federally listed species were observed during the site visit. Additionally, the ODNR-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.

No potentially suitable habitat has been identified for 21 state and federally-listed species for Union County, Ohio including the bald eagle, within the Project Study Area. Therefore, no impacts to these species or their habitats are anticipated as a result of the construction of the proposed Project.

5.0 References

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Appendix A: Figures



BASE MAP FROM USGS TOPOGRAPHIC MAP WEB SERVICE. QUAD: YORK CENTER



1382 West Ninth Street
Suite 400
Cleveland, OH 44113
Phone: 216-344-3072

TRC - GIS

PROJECT:

**AEP
BOKES CREEK PROJECT
UNION COUNTY, OHIO**

TITLE:

SITE LOCATION MAP



FIGURE 1



PROJECT STUDY AREA



AEP

**BOKES CREEK PROJECT
UNION COUNTY, OHIO**

**FIGURE 2
AERIAL MAP**



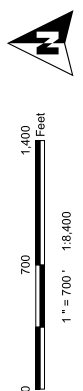
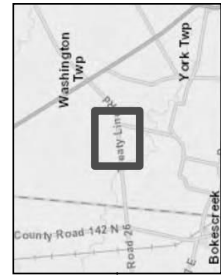
1382 West Ninth Street
Suite 400
Cleveland, OH 44113
Phone: 216-344-3072

FEBRUARY 2022

WOR_Fig02_Aerial_11x17.mxd



- PROJECT STUDY AREA
- NATIONAL HYDROGRAPHY DATASET (NHD)
- STREAM
- NATIONAL WETLANDS INVENTORY (NWI)
- FEMA 100-YEAR FLOODPLAIN
- FEMA FLOOD PANEL



AEP

BOKES CREEK PROJECT

UNION COUNTY, OHIO

FIGURE 2A

NHD, NWI & FEMA FLOODPLAIN MAP

TRC

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FEBRUARY 2022

WDR_Fig02a_Hydro_11x17.mxd



PROJECT STUDY AREA

HYDRIC SOIL

NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL

NON-HYDRIC SOIL

Soil Map Type	Soil Name
Ble1A1	Blount silt loam, end moraine, 0-2% slopes
Ble1B1	Blount silt loam, end moraine, 2-4% slopes
Gwe1B1	Glynwood silt loam, end moraine, 2-6% slopes
Gwe1B2	Glynwood silt loam, end moraine, 2-6% slopes, eroded
Pk	Pewamo silty clay loam, 0-1% slopes
We	Weazel silty clay loam




AEP

BOKES CREEK PROJECT

UNION COUNTY, OHIO

FIGURE 2B

SOILS MAP



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FEBRUARY 2022

PROJECT STUDY AREA

NON-JD DITCH

UPLAND DATA POINT



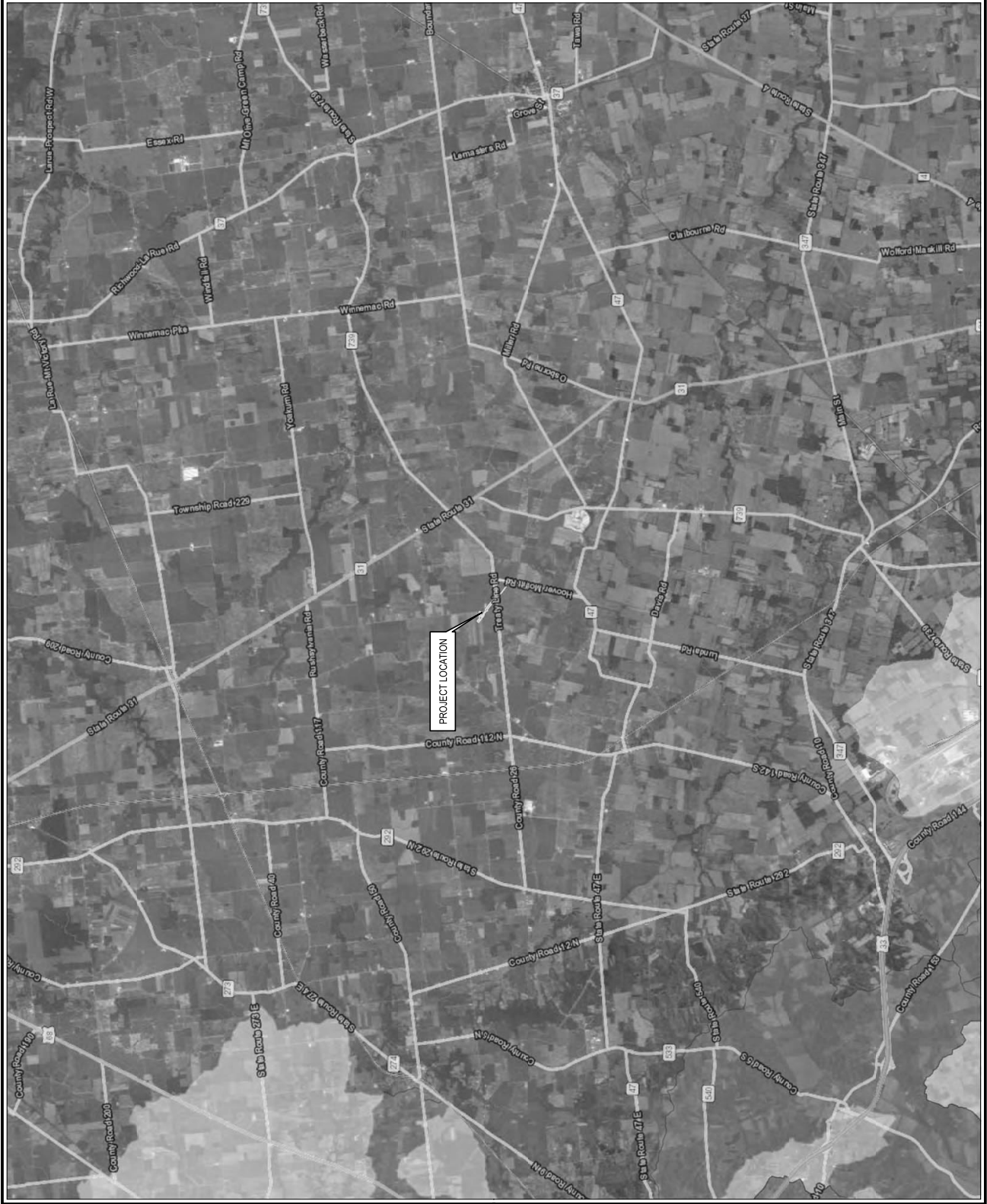
AEP
BOKES CREEK PROJECT
UNION COUNTY, OHIO

FIGURE 3
DELINEATED RESOURCES MAP



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Cleveland, OH 44113
Phone: 216-344-3072

MARCH 2022



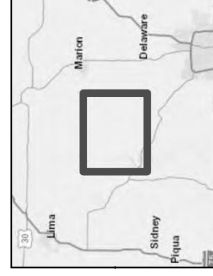
PROJECT STUDY AREA

OHIO EPA 401 WATER QUALITY CERTIFICATION
FOR NATIONWIDE PERMIT ELIGIBILITY

INELIGIBLE

POSSIBLY ELIGIBLE

ELIGIBLE



AEP
BOKES CREEK PROJECT
UNION COUNTY, OHIO

FIGURE 4
NATIONWIDE PERMITS
STREAM ELIGIBILITY MAP



1382 West Ninth Street
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FEBRUARY 2022
WDR_Fig04_NWP_11x17.mxd

**Appendix B:
Representative Site Photographs**



PHOTOGRAPHIC RECORD
Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 1.

Date:
03/04/2022

Description:

Upland data point
UPL-MRR-1, facing
north.



Photo No. 2.

Date:
03/04/2022

Description:

Upland data point
UPL-MRR-1, facing
south.





PHOTOGRAPHIC RECORD

Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 3.

Date:
03/04/2022

Description:
Upland data point
UPL-MRR-2, facing
east.



Photo No. 4.

Date:
03/04/2022

Description:
Upland data point
UPL-MRR-2, facing
west.





PHOTOGRAPHIC RECORD

Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 5.

Date:
03/04/2022

Description:

Upland data point
UPL-MRR-3, facing
east.



Photo No. 6.

Date:
03/04/2022

Description:

Upland data point
UPL-MRR-3, facing
west.





PHOTOGRAPHIC RECORD
Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 7.

Date:
03/04/2022

Description:
Ditch D-MRR-1,
facing northeast,
upslope.



Photo No. 8.

Date:
03/04/2022

Description:
Ditch D-MRR-1,
facing southwest,
downslope.





PHOTOGRAPHIC RECORD
Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 9.

Date:
03/04/2022

Description:

Ditch D-MRR-2,
facing northeast,
upslope.



Photo No. 10.

Date:
03/04/2022

Description:

Ditch D-MRR-2,
facing southwest,
downslope.





PHOTOGRAPHIC RECORD
Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 11.

Date:
03/04/2022

Description:
Ditch D-MRR-3,
facing east, upslope.



Photo No. 12.

Date:
03/04/2022

Description:
Ditch D-MRR-3,
facing west,
downslope.





PHOTOGRAPHIC RECORD
Bokes Creek Project

Client Name:
American Electric Power

Site Location:
Washington and York Townships, Union County,
Ohio

Project No.
466308.0000

Photo No. 13.

Date:
03/04/2022

Description:
Ditch D-MRR-4,
facing east, upslope.



Photo No. 14.

Date:
03/04/2022

Description:
Ditch D-MRR-4,
facing west,
downslope.



Appendix C:
USACE Wetland Determination Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Bokes Creek City/County: Union County Sampling Date: 3/4/2022
 Applicant/Owner: American Electric Power State: OH Sampling Point: UPL-MRR-1
 Investigator(s): Matthew Ray, PWS; Tom Radford Section, Township, Range: York Township
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 0-1 Lat: 40.437426 Long: -83.482177 Datum: WGS84
 Soil Map Unit Name: Glynwood silt loam, end moraine, 2 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: 0 of 3 criteria has been met. Area is not a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15ft radius</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>5ft radius</u>)			
1. <u>Erigeron canadensis</u>		<u>5</u>	<u>Yes</u>	<u>FACU</u>
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		<u>5</u> =Total Cover		
Woody Vine Stratum	(Plot size: <u>30ft radius</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>5</u> (A)	<u>20</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No X

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation criterion has not been met.

SOIL

Sampling Point: UPL-MRR-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 4/2	100					Loamy/Clayey	
8-22	10YR 4/4	100					Loamy/Clayey	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
Hydric soil criterion has not been met.

HYDROLOGY

Wetland Hydrology Indicators:			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
---	---

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

Remarks:
Hydrology criterion has not been met.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Bokes Creek City/County: Union County Sampling Date: 3/4/2022
 Applicant/Owner: American Electric Power State: OH Sampling Point: UPL-MRR-2
 Investigator(s): Matthew Ray, PWS; Tom Radford Section, Township, Range: York Township
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 40.440911 Long: -83.489057 Datum: WGS84
 Soil Map Unit Name: Blount silt loam, end moraine, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: 0 of 3 criteria has been met. Area is not a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15ft radius</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>5ft radius</u>)			
1. <u>Poa annua</u>		<u>5</u>	<u>Yes</u>	<u>FACU</u>
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		<u>5</u> =Total Cover		
Woody Vine Stratum	(Plot size: <u>30ft radius</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>5</u> (A)	<u>20</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No X

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation criterion has not been met.

SOIL

Sampling Point: UPL-MRR-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 4/2	100					Loamy/Clayey	
8-22	10YR 4/3	100					Loamy/Clayey	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
Hydric soil criterion has not been met.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
---	---

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

Remarks:
Hydrology criterion has not been met.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Bokes Creek City/County: Union County Sampling Date: 3/4/2022
 Applicant/Owner: American Electric Power State: OH Sampling Point: UPL-MRR-3
 Investigator(s): Matthew Ray, PWS; Tom Radford Section, Township, Range: York Township
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 40.443826 Long: -83.49411 Datum: WGS84
 Soil Map Unit Name: Glynwood silt loam, end moraine, 2 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: 0 of 3 criteria has been met. Area is not a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15ft radius</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>5ft radius</u>)			
1. <u>Lolium perenne</u>		100	Yes	FACU
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		100 =Total Cover		
Woody Vine Stratum	(Plot size: <u>30ft radius</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>100</u>	x 4 = <u>400</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>400</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No X

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation criterion has not been met.

SOIL

Sampling Point: UPL-MRR-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 4/2	100					Loamy/Clayey	
10-22	10YR 4/4	100					Loamy/Clayey	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
Hydric soil criterion has not been met.

HYDROLOGY

Wetland Hydrology Indicators:			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
---	---

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

Remarks:
Hydrology criterion has not been met.

**Appendix D:
Agency Coordination**

From: Ohio, FW3
To: Molnar, Maggie
Cc: Falkinburg, Brad; Grant S Stuller
Subject: [EXTERNAL] AEP's Bokes Creek Project, Washington and York Townships, Union County, Ohio
Date: Wednesday, January 12, 2022 2:55:58 PM
Attachments: image.png
image.png

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.



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



TAILS# 03E15000-2022-TA-0599

Dear Ms. Molnar,

The U.S. Fish and Wildlife Service (Service) 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 effects to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat. If there are any project modifications during the term of this action, or additional information for listed or proposed species or their critical habitat becomes available, or if new information reveals effects of the action that were not previously considered, then please contact us for additional project review.

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

Sincerely,

Patrice Ashfield
Field Office Supervisor



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: 2022-0018413
Project Name: AEP Bokes Creek

March 10, 2022

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 ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system 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:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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 <https://www.fws.gov/birds/policies-and-regulations.php>.

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/birds/bird-enthusiasts/threats-to-birds.php>.

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/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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: 2022-0018413

Event Code: None

Project Name: AEP Bokes Creek

Project Type: Distribution Line - Maintenance/Modification - Above Ground

Project Description: AEP is looking to upgrade an area of their transmission line in Washington and York Townships, Union County, Ohio. No permanent impacts will be made on wetlands or other waters of the US, but temporary impacts may be necessary to complete the constructions activities associated with the replacement of the transmission line. Study Area encompasses the transmission line right of way and a laydown area for construction equipment.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.4407546,-83.48872990054801,14z>



Counties: Union County, Ohio

Endangered Species Act Species

There is a total of 3 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. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> 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.

IPaC User Contact Information

Agency: TRC Companies, Inc.
Name: Thomas Radford
Address: 1382 West Ninth Street
Address Line 2: Suite 400
City: Cleveland
State: OH
Zip: 44113
Email: tradford@trccompanies.com
Phone: 2169038527



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief

2045 Morse Road – Bldg. E-2

Columbus, OH 43229

Phone: (614) 265-6621

Fax: (614) 267-4764

January 28, 2022

Maggie Molnar
TRC Companies
781 Science Boulevard, Suite 200
Gahanna, Ohio 43230

Re: 22-0007; AEP's Bokes Creek Project

Project: The proposed project involves the installation of a new 345 kV Station (Bokes Creek Station) and a cut in to the Central-East Lima 345kV T-Line.

Location: The proposed project is located in Washington and York Townships, Union County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has the following data within a one-mile radius of the project area:

Western Creek Chubsucker (*Erimyzon claviformis*), SC

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

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

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federal endangered, and FT = federal threatened.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 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 Erin Hazelton at Erin.hazelton@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 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 Erin Hazelton for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

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

Federally Endangered

nuffbox (*Epioblasma triquetra*)

clubshell (*Pleurobema clava*)

Northern riffleshell (*Epioblasma torulosa rangiana*)

rayed bean (*Villosa fabalis*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)

State Threatened

pondhorn (*Uniomus tetralasmus*)

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

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

State Threatened

the Tippecanoe darter (*Etheostoma Tippecanoe*)

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

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

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

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

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands. If thickets or other types of dense shrubbery habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species'

nesting period of April 15 through July 31. If this habitat will not be impacted, the 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. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

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 (Acting)

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

8/22/2022 3:57:07 PM

in

Case No(s). 22-0779-EL-BNR

Summary: Notice Construction Notice, East Lima electronically filed by Hector
Garcia-Santana on behalf of Ohio Power Company