

Construction Notice Nottingham- Nottingham Solar 138 kV Transmission Line Project



An **AEP** Company

BOUNDLESS ENERGYSM

PUCO Case No. 22-0641-EL-BNR

Submitted to:

The Ohio Power Siting Board

Pursuant to Ohio Administrative Code Section
4906-6-05

Submitted by:

AEP Ohio Transmission Company, Inc.

September 23, 2022

Construction Notice for Nottingham-Nottingham Solar 138 kV Transmission Line Project

Construction Notice

AEP Ohio Transmission Company, Inc. Nottingham-Nottingham Solar 138 kV Transmission Line

4906-6-05

AEP Ohio Transmission Company, Inc. (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 proposes to construct the Nottingham-Nottingham Solar 138 kV Transmission Line Project (the “Project”) in Athens Township, Harrison County, Ohio. The purpose of the Project is to provide a 138 kV interconnection between the Nottingham Solar facility (OPSB Case Number 21-0270-EL-BGN), an Independent Power Producer (IPP), and Nottingham Station. The Project will require installing a single pole and 138 kV span, extending approximately 220 feet from the southwest corner of Nottingham Station. The Project will be located entirely on property owned by the Company. The IPP plans to construct an electric transmission line from their solar facility substation to the Project, which will be filed with OPSB under separate cover. The location of the proposed transmission line corridor (the “Project Area”) 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. 22-0641-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 AE2-290 IPP generation interconnection, the Company will install a single 138 kV transmission line span out of Nottingham Station towards the generating facility's station to act as the point of interconnection (POI). This project is related to the Company's obligation to connect AE2-290 per the PJM IPP Tariff. The solar generation facility will have a total capability of 100 MW and be located approximately 1.5 miles west of Nottingham Station in Harrison County, Ohio. The developer will build and own the majority of the 138 kV transmission line gen-lead, up to the POI with the Company. The Project is listed in the 2022 the Company's LTFR document, page 99 (Form FE-T10, Summary of Proposed Substations).

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 and transmission lines and solar generation facility 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 one span of 138 kV electric transmission line from Nottingham Station to a single structure just beyond the station fence and will help to interconnect with an IPP solar facility. Based on the IPP's approved solar farm and the existing layout of Nottingham Station, the proposed location of the Project is the most suitable and least impactful option. Other alternatives would require impacting additional neighboring properties and would add additional transmission length to the Project without any additional benefit. The proposed Project is not anticipated to impact wetlands, streams, or any known cultural resource areas eligible for the National Register of Historic Places (NRHP). Additionally, no residences are located within one mile of the Project. Therefore, this alternative represents the most suitable location and is the most appropriate solution for meeting the Company and IPP's needs in the area.

B(5) Public Information Program

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

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

B(6) Construction Schedule

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

Construction of the Project is planned to begin in December 2022, and the anticipated in-service date will be May 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 Flushing, Ohio quadrangle. Figure 2 in Appendix A show the Project Area on recent aerial photography, dated 2020, as provided by ESRI World Imagery at a scale of 1:2,400 scale (1 inch equals 200 feet).

To visit the Project site from Columbus, Ohio, take I-70 East for approximately 85 miles to Exit 186. Turn left onto U.S. 40 West and continue for 0.4 mile where the road name changes to Fairground Road. Turn right onto Buckeye Hiking Trail and head east for 0.6 mile. Continue 6.4 miles on Fairground Road. Bear right onto U.S. 22 E and continue for 18.8 miles. Turn right onto OH-519 East (Stumptown Road). After 4.0 miles, the entrance to Nottingham Station will be on the left approximately 400 feet east of Cadiz-Flushing Road. The Project is adjacent to Nottingham Station near the end of the access road at latitude 40.190279, and longitude -81.03607.

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B(8) Property Agreements

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

The proposed Project is located on Parcel Number 020000116002, which is owned by the Company. No property easements, options, or land use agreements are necessary to construct the Project.

B(9) Technical Features

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

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

Line Asset Name:	Nottingham-Nottingham Solar 138 kV
Ownership:	AEP Ohio Transmission Company, Inc.
Voltage:	138 kV
Conductors:	(3) 795 kcmil 26/7 Strands "Drake" ACSR
Static Wire:	(2) 48 Fiber AC-86-646
Insulators:	Polymer
ROW Width:	N/A
Structure Type:	(1) Single Circuit, self-supporting steel monopole dead-end on 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 \$310,000 using a Class 4 estimate. The costs of this Project will be fully recovered through reimbursement by the IPP.

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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.

An aerial photograph of the Project vicinity is provided as Figure 2 in Appendix A. The Project is located in Athens Township, Harrison County, Ohio. Land use in the Project Area consists of fallow reclaimed mining land. The Nottingham Solar facility is proposed within much of the surrounding vicinity to the south and southwest. No tree clearing is anticipated for the Project.

B(10)(b) Agricultural Land Information

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

The Project extends from Nottingham Station to a new transmission structure just outside the station fence and is entirely on property owned by the Company. No agricultural land will be impacted by the Project. The Harrison County Auditor provided a list of parcels registered as Agricultural District Land on August 17, 2022. The Project parcel was not identified as Agricultural District Land.

B(10)(c) Archaeological and Cultural Resources

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

The Company's consultant completed a Cultural Resource Management Investigation of the Project Area. The Project area was the subject of previous investigations in 1988, 2014, and 2015. The previous investigations did not identify any significant cultural resources. No further investigation was considered to be necessary by the consultant. The report has been submitted to Ohio Historic Preservation Office ("SHPO") seeking concurrence that no further investigation or coordination is necessary prior to construction. A response has not been received to date. A copy of the SHPO response will be provided to OPSB when received by the Company.

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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.

Ground disturbance for the Project will be under one acre. The Company will have a soil and erosion plan for the Project in order to maintain best management practices to minimize erosion and control sediment to protect surface water quality during storm events.

Per field review on June 30, 2022, no streams or wetlands are located in the Project Area (see Appendix C). 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 **39067C0310D**). 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 submittal to the USFWS Information and Planning Consultation (IPaC) website was completed to assess potential impacts to threatened or endangered species. The Indiana bat (*Myotis sodalis*), a federally endangered species, and northern long-eared bat (*Myotis septentrionalis*), a federally threatened species, were identified through the IPaC website. (see Appendix B). Based on current USFWS Ohio Field Office guidance, no hibernaculum or caves were located in the Project area.

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 on June 20, 2022 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 July 18, 2022 (see Appendix B).

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According to the ODNR-DOW, the Project is within the vicinity of records for the northern long-eared bat, a state endangered and federally threatened species, and the little brown bat (*Myotis lucifugus*), a state endangered species. The Project is also within the range of the Indiana bat, a state and federally endangered species and the tricolored bat (*Perimyotis subflavus*), a state endangered species. No winter hibernacula were observed within 0.25 mile of the Project area based on the site reconnaissance and review of documented mines and karst features. No tree clearing is anticipated for the Project. Therefore, no additional coordination with ODNR is anticipated.

The ODNR-DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, the ODNR-DOW indicated that the Project is not likely to impact aquatic species. Due to location and no in-water work, indigenous aquatic species are not anticipated to be impacted by the Project.

In addition, the ODNR lists the project in the range of the northern harrier (*Circus hudsonis*) and the upland sandpiper (*Bartramia longicauda*), state endangered birds. The northern harrier nests in large marshes and grasslands and hunts over grasslands. The upland sandpiper nests in many types of grasslands including hayfields. The nesting period for both species is between April 15 and July 31. Most of the Project area was observed to be maintained grassland habitat during the field reconnaissance with more suitable habitat observed as it slopes to the northwest away from the existing substation. The Project area was walked and neither of these species, nor any nests were observed. Work areas are expected to be limited to the area adjacent to the existing fence. Additionally, disturbance is anticipated to adhere to time periods outside of the nesting windows for 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 USFWS IPaC website indicated that there are no federal wilderness areas, wildlife refuges, or designated critical habitat in the Project vicinity. Similarly, the ODNR ONHP identified no unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within one mile of the Project.

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 **39067C0310D**). Based on these maps, no mapped FEMA floodplains are located in the Project area.

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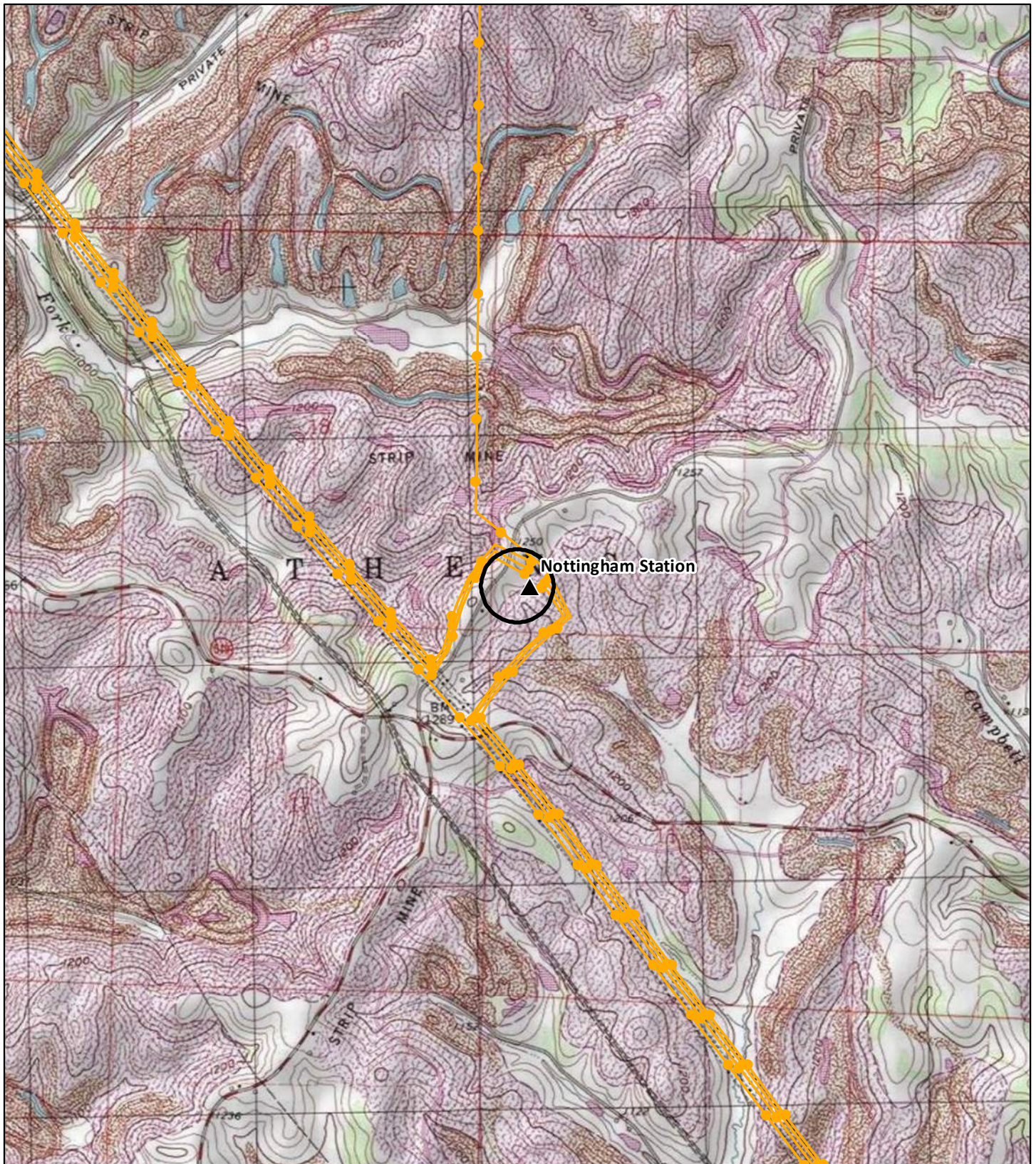
Wetland and stream delineation field surveys were completed within the Project area by the Company's consultant on June 30, 2022. No wetlands or streams were identified within in the Project Area (see Figure 3 in Appendix C).

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 (138 kV)
-  Existing Substation

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

Ohio State Plane North
NAD 1983



June 27, 2022

PROJECT LOCATION



ROSS COUNTY, OHIO

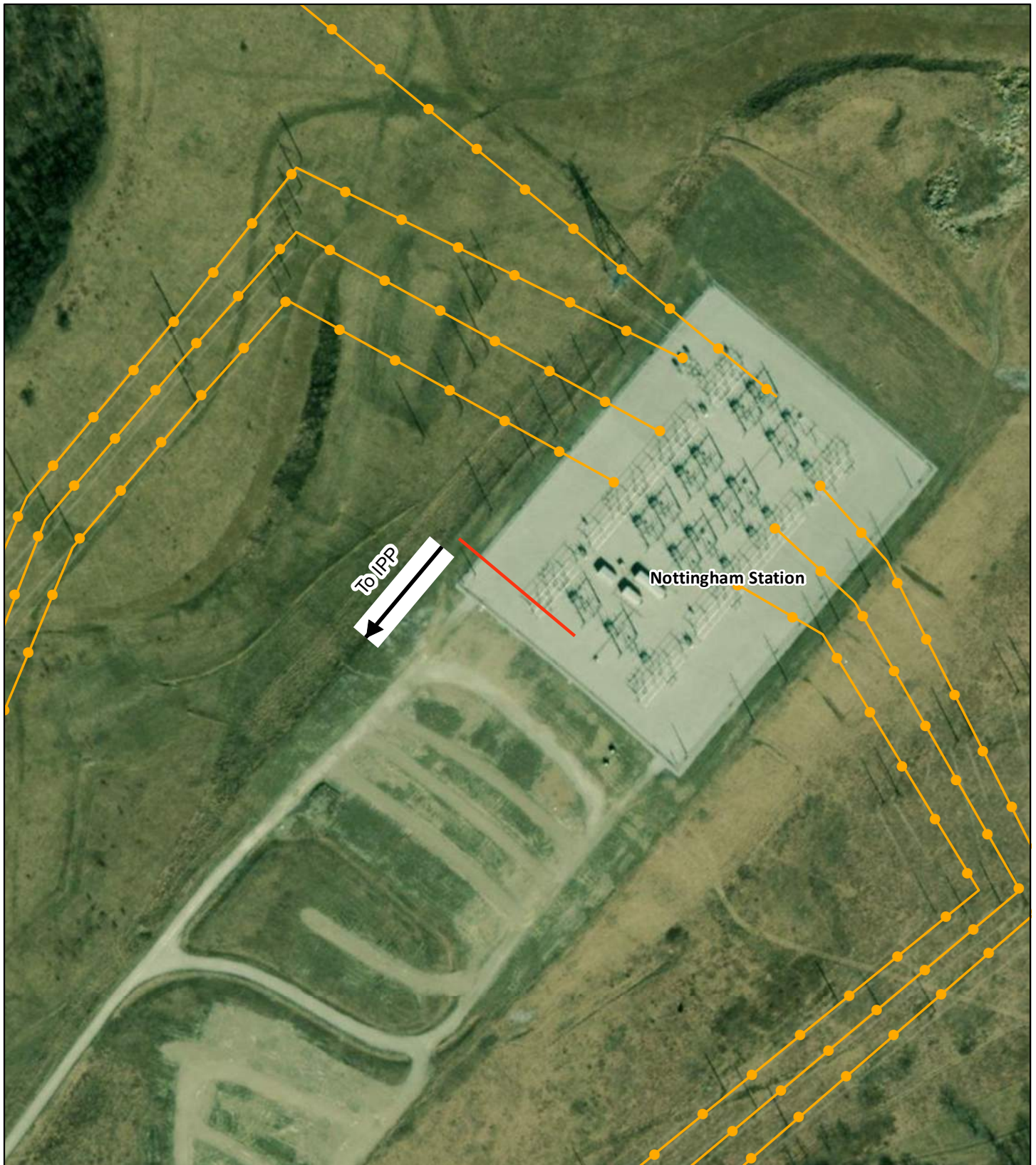
**FIGURE 1
TOPOGRAPHIC OVERVIEW**

**AEP OHIO
TRANSMISSION
COMPANY**

**Nottingham-Nottingham
Solar 138 kV Transmission
Line Project**

0 1,000 2,000 3,000

Feet



Legend:

- Nottingham-NottinghamSolar
- Existing Transmission Line (138 kV)

Data Sources: AEP,
ESRI World Imagery

Ohio State Plane North
NAD 1983



September 07, 2022

PROJECT LOCATION

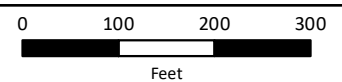


ROSS COUNTY, OHIO

**FIGURE 2
PROJECT AERIAL MAP**



Nottingham-Nottingham
Solar 138 kV Transmission
Line Project



Appendix B Agency Coordination



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: 2022-0050998

Project Name: V3, AEP, Nottingham IPP Interconnection

June 07, 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: 2022-0050998
Event Code: None
Project Name: V3, AEP, Nottingham IPP Interconnection
Project Type: Transmission Line - New Constr - Above Ground
Project Description: American Electric Power (AEP) Nottingham 138 kV Transmission Line Project in Harrison County, Ohio. The proposed Project involves construction of a new 138 kV transmission line span totaling approximately 350 feet from Nottingham Station to a solar facility's transmission line in order to interconnect the proposed Independent Power Producer (IPP). The Project is subject to Ohio Power Siting Board (OPSB) approval. The Project will occur on AEP property on previously disturbed land. No potential bat habitat trees are located within the property boundary. No streams, wetlands, or other waterbodies have been identified on site.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.1963855,-81.03283880000001,14z>



Counties: Harrison 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.

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

Mammals

NAME	STATUS
Indiana Bat <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: Ohio Power Siting Board
Name: Aaron Geckle
Address: 312 Walnut Street
Address Line 2: Suite 1600
City: Cincinnati
State: OH
Zip: 45202
Email: ageckle@v3co.com
Phone: 5138003622



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

July 18, 2022

Aaron Geckle
V3 Companies
312 Walnut Street, Suite 1600
Cincinnati, OH 45202

Re: 22-0617; AEP Nottingham 138 kV Transmission Line Solar Facility Interconnection

Project: The proposed project involves constructing the 138 kV transmission line interconnection.

Location: The proposed project is located in Athens Township, Harrison 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.

Real Estate and Land Management: The Office of Real Estate and Land Management (REALM) has the following comments.

ODNR has developed [Recommended Requirements for Proposed Solar Energy Facilities in Ohio](#). While these recommended requirements are intended for solar facilities subject to Ohio Power Siting Board (OPSB) approval, we encourage voluntary consideration of these recommended requirements for solar energy facilities not subject to OPSB approval as well.

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

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

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

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

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

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

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[Range-wide Indiana Bat Survey Guidelines](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact aquatic 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, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the

Conservation Reserve Program (CRP). 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 type of habitat will not be impacted, this project is not likely to impact this species.

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

Geological Survey: The Division of Geological Survey has the following comments.

Physiographic Region

The proposed project area is in Athens Township, Harrison County. This area is in the Little Switzerland Plateau physiographic region. This region is characterized by highly dissected plateaus of mostly fine-grained rocks. Red shales and red soils are common. Landslides are common and high-gradient shale-bottomed streams are subject to flash flooding. Pennsylvanian Upper Conemaugh through Permian Dunkard Group bedrock can be found in the area (Ohio Department of Natural Resources, Division of Geological Survey, 1998).

Surficial/Glacial Geology

The project area lies outside the glaciated margin of the state. The project area is derived from colluvium derived from local bedrock. This includes scattered areas of residuum, weathered material, and bedrock outcrops (Ohio Department of Natural Resources, Division of Geological Survey, Statewide Surficial Geology Map).

Bedrock Geology

The uppermost bedrock unit in the project area is the Monongahela Group. This unit is Pennsylvanian-age and consists of multiple sequences of shale, siltstone, limestone, sandstone and coal. Units tend to have massive bedding. Many economic coal beds can be found in this formation. Bedrock may be exposed in outcrops and roadcuts within the boundary of the project area (Slucher et al, 2006).

Oil, Gas and Mining

ODNR has record of twelve oil and gas wells within one mile of the proposed project area. Nine wells are listed as plugged and abandoned. The remaining three wells are historic oil and gas wells with an unknown status (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR has record of extensive mining operations within the project area. There is an abandoned underground mine beneath the project area. This underground mine was known as the Franklin Highwall Mine and was previously operated by the Hanna Coal Co. The project area was also disturbed by the Consolidated Coal Company's surface mine (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Seismic Activity

Several small earthquakes have historically been recorded near the site. The three events closest to the site are listed in the chart below (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Earthquake Epicenters):

Date	Magnitude	Distance to Site Boundary	County	Township
November 27, 2016	2.5	6.8 miles	Harrison	Moorefield
November 13, 2016	2.5	7.0 miles	Harrison	Moorefield
November 13, 2016	2.2	7.1 miles	Harrison	Moorefield

Geologic Hazards

Outcrops of the Monongahela Group are susceptible to landslides. Although there are no documented landslides in the project area, there are areas where the soil is thin or absent and outcrops of Monongahela Group are present. Landslides can occur where one or more of the following conditions exist: steep slopes, jointed rocks, fine-grained and permeable rock or sediment, presence of clay or shale units and large amounts of water (Hansen, 1995 and USGS Landslide Inventory). Developers should be cautious of unstable slopes within the project area.

This project is in an area with a history of mining (both surface and underground mining). Developers should be cautious of unstable slopes, surface settling, and rapid erosion within the project area.

Soils

According to the USDA Web Soil Survey, the project area consists primarily of soils derived from residuum and coal extraction mine spoil. Lowell and Morristown are the soil series found within the boundaries of the project area. The Lowell Soil has a clayey texture, and the Morristown Soil is a channery silt loam (USDA Web Soil Survey).

There is a moderate risk of shrink-swell potential in these soils. Other limiting factors include The Morristown Soil which makes up 41% of the project area, is a soil developed in mine spoil and may be an unstable soil on slopes. Slope is variable, with slope frequently exceeding a 6% grade. Slopes are generally steep in the project area (Roth and Buzard, 1998; and USDA Web Soil Survey).

Groundwater

Groundwater resources are limited throughout the project area. Wells developed in bedrock may yield up to five gallons per minute. The Monongahela Group is a poor aquifer (Crowell, 1980 and Ohio Department of Natural Resources, Division of Water, Bedrock Aquifer Map, 2000).

ODNR has record of two water wells drilled within one mile of the project area. These wells are 109 and 132 feet deep, with an average depth of 121 feet. The aquifers listed in both wells are interbedded limestone, sandstone, and shale. Sustainable yields of 0.5 and 2 gallons per minute have been reported for these two wells within one mile of the project area (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

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

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator

Appendix C Ecological Report

**NOTTINGHAM-NOTTINGHAM
SOLAR 138 kV TRANSMISSION
LINE SPAN
ECOLOGICAL RESOURCES INVENTORY
REPORT**



PROJECT SITE:

Stumptown Road
Athens Township, Harrison County, Ohio

PREPARED FOR:

AEP Ohio Transmission Company, Inc.
8500 Smiths Mill Road
New Albany, Ohio 43054



An **AEP** Company

BOUNDLESS ENERGY™

PREPARED BY:

V3 Companies, Ltd.
312 Walnut Street
Suite 1600
Cincinnati, Ohio 45202

July 2022

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CHAPTER 1 INTRODUCTION

AEP Ohio Transmission Company, Inc., (AEP) plans provide a 138 kV interconnection between the Nottingham Solar facility, an Independent Power Producer (IPP), and AEP's Nottingham Station in Athens Township, Harrison County, Ohio (the Project). The Project will be a single span of 138 kV transmission line extending approximately 250 feet from the southwest corner of Nottingham Station. The Project will be entirely on property of the Company. The IPP plans to construct an electric transmission line from their solar facility substation, located 0.6 miles to the southwest, to the new span. The Project area (SITE) is approximately 1.9 acres and extends beyond the short transmission line span to account for potential work areas and access roads (**Figure 1**).

V3 Companies, Ltd (V3) evaluated the SITE for wetlands, streams, open water, and endangered, threatened, and rare (ETR) species and habitat.

This report has been prepared solely in accordance with an agreement between AEP and V3. The services performed by V3 have been conducted in a manner consistent with the level of quality and skill generally exercised by members of its profession and consulting practices relating to this type of engagement.

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



CHAPTER 2 METHODS

2.1 LAND COVER SURVEY

V3 coordinated with the U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR) to determine the potential presence of protected areas within the site area. Potential protected areas include unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks, state/national forests, wildlife refuges, and others.

V3 also completed a desktop terrestrial habitat analysis using geographic information system (GIS) software and aerial imagery. V3 identified land cover and vegetative community types within the Project area and determined the percent share of total area accounted for by each. V3 verified this analysis by completing a pedestrian survey of the Project area, noting vegetative species composition and documenting conditions with representative photographs.

2.2 WETLAND DELINEATION

V3 completed a desktop review of Project area wetlands using the following: U.S. Geological Survey (USGS) topographic maps; aerial photography; National Wetland Inventory (NWI) maps; U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey maps; and Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) data.

V3 completed an on-site wetland delineation using the Routine Determination Method (RDM) as per the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* and *Eastern Piedmont Regional Supplement*. This approach recognizes the three parameters of wetland hydrology, hydrophytic vegetation, and hydric soils to identify and delineate wetland boundaries. Wetland surveys were conducted using the most current regulations as regulated by Ohio Administrative Code (OAC) rules 3745-1-50 through 3745-1-54. V3 used a portable global positioning system (GPS) of sub-meter accuracy to delineate all wetlands identified within the Project area. Once delineated, V3 classified these wetlands using the Ohio Rapid Assessment Method (ORAM) for wetlands.

2.3 STREAM DELINEATION

A desktop review of the available USGS topographic mapping, aerial photography, and FEMA National Flood Hazard Layer (NFHL) data was conducted for the Project area. A desktop review of the Ohio Environmental Protection Agency (OEPA) Stream Water Quality Certification Eligibility Web Map and Aquatic Life Use Designations (OAC 3745-1). V3 identified drainage features within the Project area. If the feature exhibited an ordinary high water mark¹ (OHWM), V3 determined its jurisdictional status using the pre-2015 regulatory definition² of “Waters of the U.S.” If the feature qualified as a “Water of the U.S.,” V3 classified it as an ephemeral, intermittent, or perennial stream.³ As regulated by OAC Chapter 3745-1-24, V3 performed a functional habitat assessment using the Headwater Habitat Evaluation Index (HHEI) or the Qualitative Habitat Evaluation Index (QHEI). V3 recorded stream centerlines using a hand-held GPS of sub-meter accuracy.

V3 also used a hand-held GPS to record the placement of upland drainage features lacking an OHWM but did not complete an HHEI or QHEI for these features.

¹ 33 Code of Federal Regulations (CFR) §328.3(c)(7)

² 40 CFR §230.3(s)a

³ 3 CFR §32.3(c)(3,5,8)



2.4 OPEN WATER SURVEY

V3 completed an on-SITE survey for open water features (such as ponds) within the site area. V3 recorded the placement of these features using a hand-held GPS unit of sub-meter accuracy.

2.5 ENDANGERED, THREATENED, AND RARE SPECIES

V3 coordinated with the USFWS and the ODNR regarding the potential presence of any rare, threatened, or endangered species within the Project area in June 2022. This included a submittal to the USFWS Information and Planning Consultation (IPaC) website and a correspondence letter to ODNR. A response from ODNR was received on 18 July 2022. V3 also completed an on-site pedestrian habitat survey, noting and recording instances of rare, threatened, or endangered species habitat observed. If applicable, V3 documented rare, threatened, or endangered habitat using a hand-held GPS. Areas of karst topography and underground mine openings were also reviewed for potential for winter hibernacula for bat species.



CHAPTER 3 RESULTS

V3 completed on-SITE Project area fieldwork on 30 June 2022. This included a land cover survey, wetland delineation, stream delineation, open water survey, and habitat survey.

3.1 LAND COVER

Agency coordination indicated no protected areas within the Project area limits. V3's land cover survey identified two land cover and vegetative community types within the Project area (**Table 1** and **Figure 2**).

Table 1: Land Cover Survey Results

Type	Anthropogenic Disturbance	Unique, Rare, or High Quality?	Project Area Acreage (approximate)
Grassland	Maintained grassland consistent vegetation mowing	No	1.60
Disturbed/Gravel	Disturbed areas generally free of vegetation	No	0.27

Figure 2 shows the approximate placement of these land cover types. Copies of agency correspondence can be referenced in **Appendix A**. Representative photographs of the habitat in the Project area are included in **Appendix B**.

3.2 WETLANDS

V3 identified no wetland within the Project area. One likely wetland was observed just beyond the western boundary of the survey area. **Figure 3** shows the approximate placement of this likely wetland. No NWI features are mapped within the Project area. Data sheets for upland areas evaluated on SITE and photography can be referenced in **Appendix C**.

3.3 STREAMS

V3 identified no streams, ditches, or drainage features were identified within the Project area.

3.4 OPEN WATERS

V3 identified no open water features situated within the Project area.

3.5 ENDANGERED, THREATENED, AND RARE SPECIES

Agency correspondence indicated that the Project area is situated within the range of seven T&E species, for which V3 identified one instance of potential habitat (**Table 2, Figure 4**).



Table 2: Habitat Survey Results

Scientific Name	Common Name	Federal Status	State Status	Habitat	ODNR Comments	USFWS Comments	Habitat Observed	Potential Impacts & Avoidance
Bats								
<i>Myotis sodalis</i>	Indiana bat	E	E	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. Primarily use caves for hibernacula, although are also known to hibernate in abandoned underground mines.	Project is within the vicinity of the northern long-eared and little brown bats. Additional summer surveys would not constitute presence/absence in the area. ODNR DOW recommends that habitat be conserved wherever possible. If suitable habitat occurs within the Project area and trees need to be cut, the ODNR DOW recommends cutting occur between October 1 and March 31. ODNR also recommends a desktop habitat assessment, followed by a field assessment if needed, to determine if a potential hibernaculum is present within 0.25 mile of the Project area.	Seasonal clearing between October 1 and March 31 for any trees >3" dbh recommended. Summer presence/absence survey if seasonal clearing is not possible.	None	No tree clearing is proposed as part of the Project.
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	E					
<i>Myotis lucifugus</i>	Little brown bat	N/A	E			None		
<i>Perimyotis subflavus</i>	Tricolored bat	N/A	E			None		



Scientific Name	Common Name	Federal Status	State Status	Habitat	ODNR Comments	USFWS Comments	Habitat Observed	Potential Impacts & Avoidance
Indigenous Aquatic Species								
No specific species identified but general indigenous aquatic species were provided in the ODNR letter response.				Perennial streams of sufficient size.	ODNR DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this Project is not likely to impact these or other aquatic species.	None	None	No perennial streams were observed within the Project area.
Birds								
<i>Bartramia longicauda</i>	Upland sandpiper	N/A	E	Dry grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program.	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. This Project is not likely to impact this species.	None	The majority of the SITE was observed to be maintained grassland habitat. Areas adjacent to the existing substation fence are heavily disturbed or gravel covered. The entire SITE was walked. This species nor any nests were observed.	Adherence to nesting window or avoidance of grassland habitat is planned.



Scientific Name	Common Name	Federal Status	State Status	Habitat	ODNR Comments	USFWS Comments	Habitat Observed	Potential Impacts & Avoidance
<i>Circus hudsonis</i>	Northern harrier	N/A	E	This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands.	If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this Project is not likely to impact this species.	None	The majority of the SITE was observed to be maintained grassland habitat. Areas adjacent to the existing substation fence are heavily disturbed or gravel covered. The entire SITE was walked. This species nor any nests were observed.	Adherence to nesting window or avoidance of grassland habitat is planned.
Insects								
<i>Danaus plexippus</i>	Monarch butterfly	C	N/A	Migratory species that lay their eggs on their obligate milkweed host plant.	None	None	Project area contains clover and other plant species utilized by pollinators.	Transient nature of species and limited footprint of Project work areas relative to surrounding area.



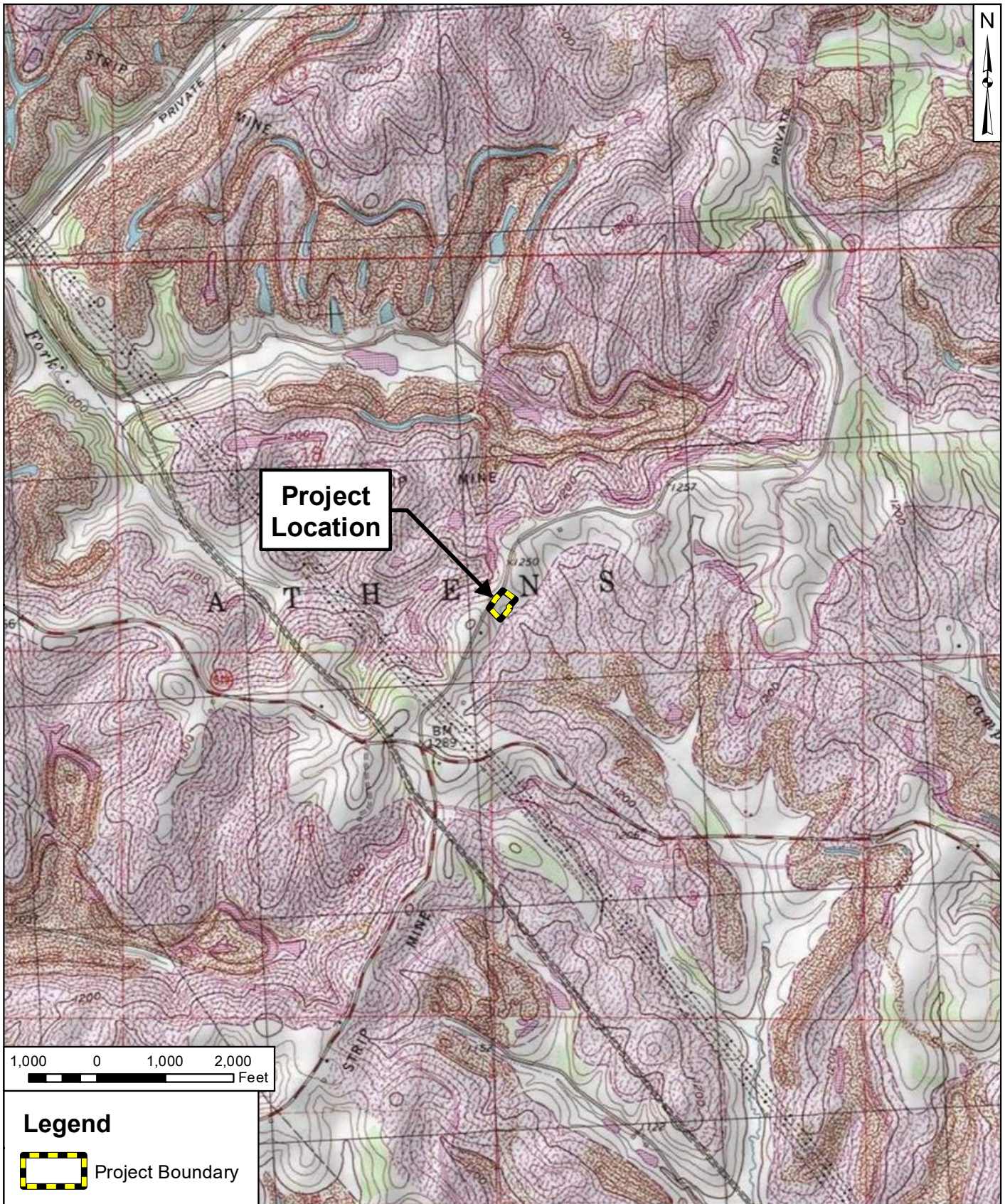
CHAPTER 4 CONCLUSION

On 30 June 2022, V3 completed a wetland delineation, stream delineation, open water survey, and habitat survey for the Project area of the proposed Nottingham-Nottingham Solar 138 kV transmission line span. V3 identified no wetlands or streams within the SITE boundary. One likely wetland was observed just beyond the western SITE boundary. No wetlands, streams, drainage features, no open water features, and potential summer roosting bat habitat were identified within the Project area.

Coordination with USFWS and ODNR identified Indiana, northern long-eared, little brown, and tricolored bat species listed as endangered or threatened at the federal or state level. No underground mine points are mapped by ODNR within 0.25 mile of the SITE. Two points (HN-OGS-050 and HN-OGS-051) are just beyond 0.25 mile of the SITE to the southwest and northeast, respectively. These points were recorded prior to 1950 and are within areas that appear to be reclaimed. Based on distance and age, the potential for the Project to impact a bat hibernaculum appears low. No tree clearing is proposed as part of the Project.

ODNR identified two state endangered bird species with the potential to inhabit the Project area. The upland sandpiper favors dry grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program. The northern harrier 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. Most of the SITE was observed to be maintained grassland habitat during the field reconnaissance with more suitable habitat observed as the SITE slopes to the northwest away from the existing substation. The entire SITE was walked. This species nor any nests were observed. Work areas are expected to be limited to the area adjacent to the existing fence. Disturbance is expected to adhere to time periods outside of the nesting windows for these species.





1,000 0 1,000 2,000
Feet

Legend



Project Boundary



312 Walnut Street, Ste 1600
Cincinnati, Ohio 45202
513.800.3622 phone
www.v3co.com

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

PROJECT NO.:
210180.068

CREATED BY:
ARG

DATE:
07/13/2022

SCALE:
See Scale Bar

CLIENT:
American Electric Power
8500 Smiths Mill Road
New Albany, Ohio 43054

BASE LAYER:
USGS Topographic
Quadrangle Map:
Flushing, OH

TITLE:

PROJECT LOCATION MAP

SITE:
Nottingham-Nottingham Solar
138 kV Transmission Line Span
Athens Township, Harrison County, Ohio

FIGURE:

1



Legend



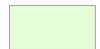
Project Boundary



Proposed Transmission Structure



Proposed Transmission Span



Maintained Grassland



Disturbed/Gravel



312 Walnut Street, Ste 1600
Cincinnati, Ohio 45202
513.800.3622 phone
www.v3co.com

PROJECT NO.:

210180.068

CREATED BY:

ARG

DATE:

07/18/2022

SCALE:

See Scale Bar

CLIENT:

American Electric Power
8500 Smiths Mill Road
New Albany, Ohio 43054

BASE LAYER:

Aerial Imagery
(2018)

TITLE:

HABITAT ASSESSMENT MAP

SITE:

Nottingham-Nottingham Solar
138 kV Transmission Line Span
Athens Township, Harrison County, Ohio

FIGURE:

2

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Legend



Project Boundary



Data Point



Approximate Wetland



Proposed Transmission Structure



Proposed Transmission Span



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Cincinnati, Ohio 45202
513.800.3622 phone
www.v3co.com

Visio, Vertere, Virtute...

"The Vision To Transform with Excellence"

PROJECT NO.:

210180.068

CREATED BY:

ARG

DATE:

07/13/2022

SCALE:

See Scale Bar

CLIENT:

American Electric Power
8500 Smiths Mill Road
New Albany, Ohio 43054

BASE LAYER:

Aerial Imagery
(2018)

TITLE:

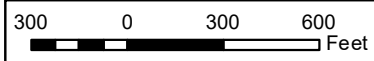
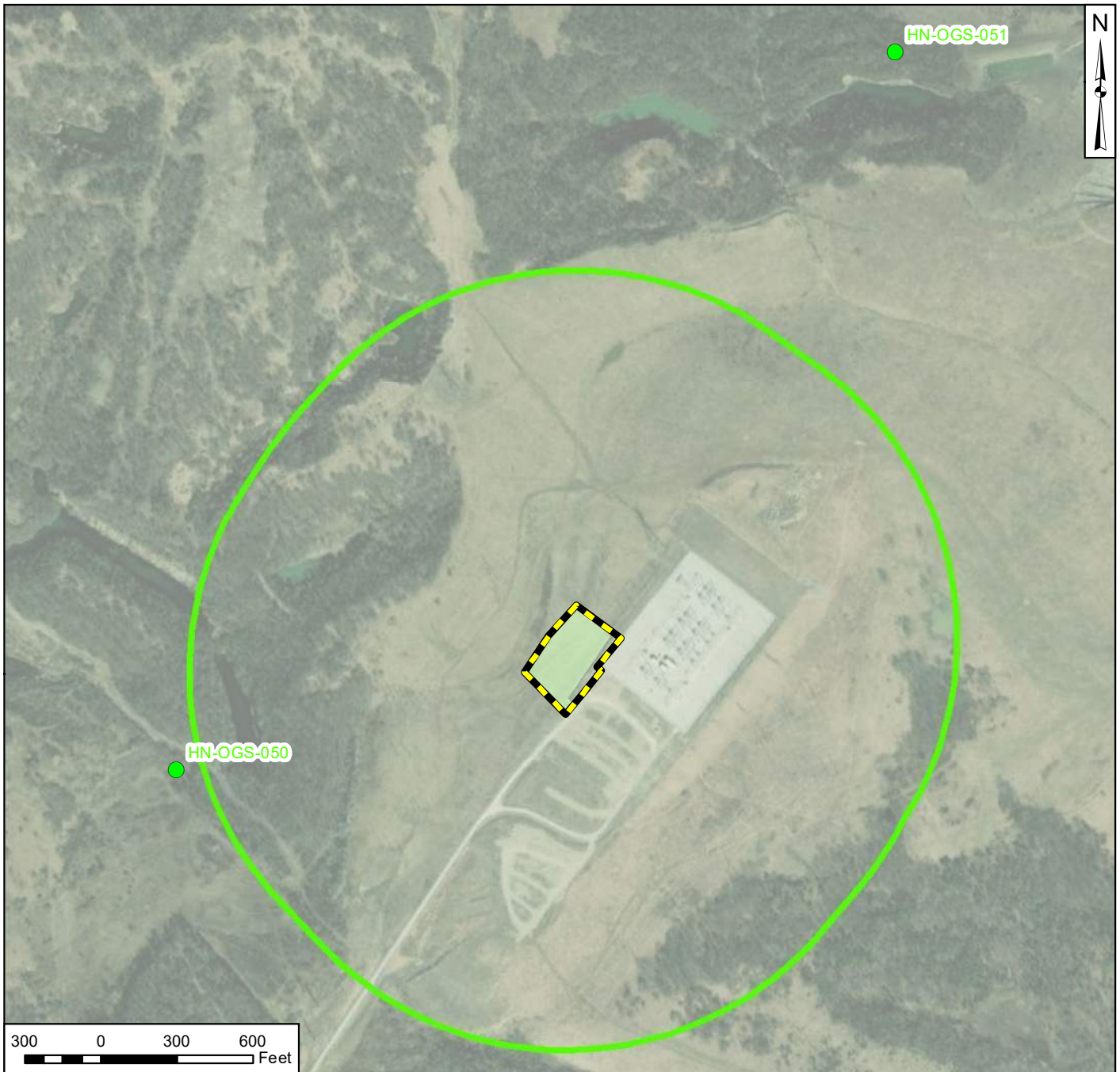
WETLAND AND STREAM DELINEATION MAP

SITE:

Nottingham-Nottingham Solar
138 kV Transmission Line Span
Athens Township, Harrison County, Ohio

FIGURE:

3



Legend



Project Boundary



SITE Grassland Habitat



Historical Reported Mine Opening (Not Field Located)



0.25-mile Project Area Buffer



312 Walnut Street, Ste 1600
Cincinnati, Ohio 45202
513.800.3622 phone
www.v3co.com

Visio, Vertere, Virtute...

"The Vision To Transform with Excellence"

PROJECT NO.:

210180.010

CREATED BY:

ARG

DATE:

07/13/2022

SCALE:

See Scale Bar

CLIENT:

American Electric Power
8500 Smiths Mill Road
New Albany, Ohio 43054

BASE LAYER:

Aerial Imagery
(2018)

TITLE:

T&E SPECIES HABITAT MAP

SITE:

Nottingham-Nottingham Solar
138 kV Transmission Line Span
Athens Township, Harrison County, Ohio

FIGURE:

4

Appendix A

ODNR and USFWS Correspondence





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

July 18, 2022

Aaron Geckle
V3 Companies
312 Walnut Street, Suite 1600
Cincinnati, OH 45202

Re: 22-0617; AEP Nottingham 138 kV Transmission Line Solar Facility Interconnection

Project: The proposed project involves constructing the 138 kV transmission line interconnection.

Location: The proposed project is located in Athens Township, Harrison 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.

Real Estate and Land Management: The Office of Real Estate and Land Management (REALM) has the following comments.

ODNR has developed [Recommended Requirements for Proposed Solar Energy Facilities in Ohio](#). While these recommended requirements are intended for solar facilities subject to Ohio Power Siting Board (OPSB) approval, we encourage voluntary consideration of these recommended requirements for solar energy facilities not subject to OPSB approval as well.

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

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

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

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

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

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

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[Range-wide Indiana Bat Survey Guidelines](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact aquatic 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, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the

Conservation Reserve Program (CRP). 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 type of habitat will not be impacted, this project is not likely to impact this species.

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

Geological Survey: The Division of Geological Survey has the following comments.

Physiographic Region

The proposed project area is in Athens Township, Harrison County. This area is in the Little Switzerland Plateau physiographic region. This region is characterized by highly dissected plateaus of mostly fine-grained rocks. Red shales and red soils are common. Landslides are common and high-gradient shale-bottomed streams are subject to flash flooding. Pennsylvanian Upper Conemaugh through Permian Dunkard Group bedrock can be found in the area (Ohio Department of Natural Resources, Division of Geological Survey, 1998).

Surficial/Glacial Geology

The project area lies outside the glaciated margin of the state. The project area is derived from colluvium derived from local bedrock. This includes scattered areas of residuum, weathered material, and bedrock outcrops (Ohio Department of Natural Resources, Division of Geological Survey, Statewide Surficial Geology Map).

Bedrock Geology

The uppermost bedrock unit in the project area is the Monongahela Group. This unit is Pennsylvanian-age and consists of multiple sequences of shale, siltstone, limestone, sandstone and coal. Units tend to have massive bedding. Many economic coal beds can be found in this formation. Bedrock may be exposed in outcrops and roadcuts within the boundary of the project area (Slucher et al, 2006).

Oil, Gas and Mining

ODNR has record of twelve oil and gas wells within one mile of the proposed project area. Nine wells are listed as plugged and abandoned. The remaining three wells are historic oil and gas wells with an unknown status (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR has record of extensive mining operations within the project area. There is an abandoned underground mine beneath the project area. This underground mine was known as the Franklin Highwall Mine and was previously operated by the Hanna Coal Co. The project area was also disturbed by the Consolidated Coal Company's surface mine (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Seismic Activity

Several small earthquakes have historically been recorded near the site. The three events closest to the site are listed in the chart below (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Earthquake Epicenters):

Date	Magnitude	Distance to Site Boundary	County	Township
November 27, 2016	2.5	6.8 miles	Harrison	Moorefield
November 13, 2016	2.5	7.0 miles	Harrison	Moorefield
November 13, 2016	2.2	7.1 miles	Harrison	Moorefield

Geologic Hazards

Outcrops of the Monongahela Group are susceptible to landslides. Although there are no documented landslides in the project area, there are areas where the soil is thin or absent and outcrops of Monongahela Group are present. Landslides can occur where one or more of the following conditions exist: steep slopes, jointed rocks, fine-grained and permeable rock or sediment, presence of clay or shale units and large amounts of water (Hansen, 1995 and USGS Landslide Inventory). Developers should be cautious of unstable slopes within the project area.

This project is in an area with a history of mining (both surface and underground mining). Developers should be cautious of unstable slopes, surface settling, and rapid erosion within the project area.

Soils

According to the USDA Web Soil Survey, the project area consists primarily of soils derived from residuum and coal extraction mine spoil. Lowell and Morristown are the soil series found within the boundaries of the project area. The Lowell Soil has a clayey texture, and the Morristown Soil is a channery silt loam (USDA Web Soil Survey).

There is a moderate risk of shrink-swell potential in these soils. Other limiting factors include The Morristown Soil which makes up 41% of the project area, is a soil developed in mine spoil and may be an unstable soil on slopes. Slope is variable, with slope frequently exceeding a 6% grade. Slopes are generally steep in the project area (Roth and Buzard, 1998; and USDA Web Soil Survey).

Groundwater

Groundwater resources are limited throughout the project area. Wells developed in bedrock may yield up to five gallons per minute. The Monongahela Group is a poor aquifer (Crowell, 1980 and Ohio Department of Natural Resources, Division of Water, Bedrock Aquifer Map, 2000).

ODNR has record of two water wells drilled within one mile of the project area. These wells are 109 and 132 feet deep, with an average depth of 121 feet. The aquifers listed in both wells are interbedded limestone, sandstone, and shale. Sustainable yields of 0.5 and 2 gallons per minute have been reported for these two wells within one mile of the project area (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

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

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

Mike Pettegrew
Environmental Services Administrator



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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: 2022-0050998

Project Name: V3, AEP, Nottingham IPP Interconnection

June 07, 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

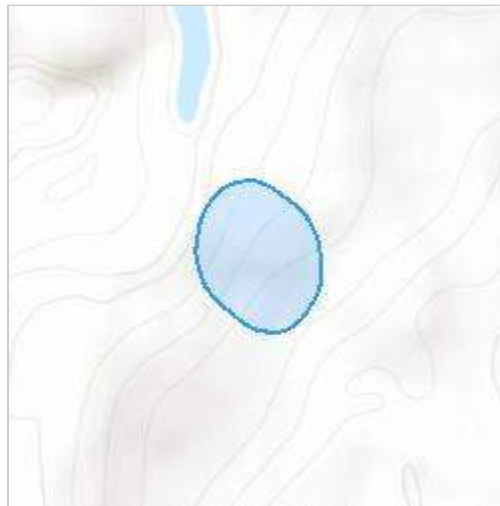
(614) 416-8993

Project Summary

Project Code: 2022-0050998
Event Code: None
Project Name: V3, AEP, Nottingham IPP Interconnection
Project Type: Transmission Line - New Constr - Above Ground
Project Description: American Electric Power (AEP) Nottingham 138 kV Transmission Line Project in Harrison County, Ohio. The proposed Project involves construction of a new 138 kV transmission line span totaling approximately 350 feet from Nottingham Station to a solar facility's transmission line in order to interconnect the proposed Independent Power Producer (IPP). The Project is subject to Ohio Power Siting Board (OPSB) approval. The Project will occur on AEP property on previously disturbed land. No potential bat habitat trees are located within the property boundary. No streams, wetlands, or other waterbodies have been identified on site.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.1963855,-81.03283880000001,14z>



Counties: Harrison 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: Ohio Power Siting Board
Name: Aaron Geckle
Address: 312 Walnut Street
Address Line 2: Suite 1600
City: Cincinnati
State: OH
Zip: 45202
Email: ageckle@v3co.com
Phone: 5138003622

Appendix B

Representative Habitat Photography



Photo: 1

Data Point 1

Direction of View:

Southwest

Date:

30 June 2022



Photo: 2

Data Point 1

Direction of View:

West

Date:

30 June 2022



Photo: 3

Data Point 2

Direction of View:

Southwest

Date:

30 June 2022



Photo: 4

Data Point 2

Direction of View:

West

Date:

30 June 2022



Photo: 5

Existing Station Edge

Direction of View:

Northeast

Date:

30 June 2022



Appendix C

Wetland Delineation Materials



WETLAND DETERMINATION FORM-EASTERN MOUNTAINS AND PIEDMONT

Site: Nottingham 138 kV City/County: Harrison County Date: 30 June 2022 Data Point: DP 1
 Client: American Electric Power State: Ohio Section, Township, Range: Sec 12, T 9N, R 5W
 Investigator(s): N. Houk Landform: Ridges Local Relief: Convex
 Slope (%): 5 Lat. 40.196366 Long. -81.033012 Datum: NAD 83 NWI Class: N/A
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed
 Climatic/hydrologic conditions typical for time of year? Y/N
 Vegetation, Soil or Hydrology significantly disturbed
 Vegetation, Soil or Hydrology naturally problematic
 Are Normal Circumstances Present? Yes No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	No	X	Is the DP within a Wetland?
Hydric Soil Present?	Yes	No	X	
Wetland Hydrology Present?	Yes	No	X	

Remarks: Does not meet all wetland criteria

VEGETATION

Tree Stratum		Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet			
1.						Number of dominant species that are OBL, FACW, or FAC:		0	
2.						Total number of dominant species across all strata:		4	
3.						Percent of dominant species that are OBL, FACW, or FAC:		0.00	
4.						Prevalence Index Worksheet			
5.			0	Total Cover		Total % cover of:			
Shrub Stratum		Plot size: 15'				OBL species	0 x 1	0	
1.	<i>Rubus allegheniensis</i>		10	Y	FACU 4	FACW species	0 x 2	0	
2.						FAC species	0 x 3	0	
3.						FACU species	70 x 4	280	
4.						UPL species	20 x 5	100	
5.			10	Total Cover		Total	90	380	
Herb Stratum		Plot size: 5'				Prevalence Index:		4.22	
1.	<i>Phleum pratense</i>		20	Y	FACU 4	Hydrophytic Vegetation Indicators:			
2.	<i>Poa pratensis</i>		20	Y	FACU 4	Rapid Test for Hydrophytic Veg.			
3.	<i>Medicago sativa</i>		20	Y	UPL 5	Dominance Test is >50%			
4.	<i>Cichorium intybus</i>		10	N	FACU 4	Prevalence Index is <3.0*			
5.	<i>Vicia sativa</i>		10	N	FACU 4	Morphological Adaptations*			
6.						Problematic Hydrophytic Vegetation*			
7.						*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
8.						Hydrophytic Vegetation Present?			
Woody Vine Stratum		Plot size: 15'				Yes	No	x	
1.									
2.			0	Total Cover					
Remarks:									

Remarks:

SOIL

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

Depth (inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					SiCL	Fill

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

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 5cm Mucky Peat or Peat	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)	
		<input type="checkbox"/> Other

Restrictive Layer (if observed): Type: _____	Hydric Soil Present?	Yes	No	X
Depth (Inches): _____				

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)					Secondary Indicators		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water Stained Leaves (B9)	<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Aquatic Fauna (B13)	<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True Aquatic Plants (B14)	<input type="checkbox"/>	Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recent Iron Reduction in Tilled Soil (C6)	<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guage or Well Data (D9)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other			
Field Observations: Surface Water Present?					Yes	No	X
Water Table Present?					Yes	No	X
Saturation Present?					Yes	No	X

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

Remarks:

Site:	Nottingham 138 kV		City/County:	Harrison County		Date:	30 June 2022		Data Point:	DP 2		
Client:	American Electric Power		State:	Ohio		Section, Township, Range:			Sec 12, T 9N, R 5W			
Investigator(s): N. Houk			Landform			Hillslopes		Local Relief		Convex		
Slope (%): 5		Lat.	40.196156		Long.	-81.033494		Datum	NAD 83		NWI Class:	N/A
Soil Map Unit Name: Morristown silty clay loam, 8 to 25 percent slopes, reclaimed												
Climatic/hydrologic conditions typical for time of year? Y/N												
Vegetation _____, Soil _____			or Hydrology _____			significantly disturbed						
Vegetation _____, Soil _____			or Hydrology _____			naturally problematic						
Are Normal Circumstances Present? Yes No												

Hydrophytic Vegetation Present?	Yes	No	X	Is the DP within a Wetland? Yes No X
Hydric Soil Present?	Yes	No	X	
Wetland Hydrology Present?	Yes	No	X	

VEGETATION					Dominance Test Worksheet		
Tree Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	Number of dominant species that are OBL, FACW, or FAC:		
1.					Total number of dominant species across all strata:		
2.					Percent of dominant species that are OBL, FACW, or FAC:		
3.					Prevalence Index Worksheet		
4.					Total % cover of:		
5.					OBL species	0 x 1	0
		0	Total Cover		FACW species	0 x 2	0
Shrub Stratum	Plot size: 15'				FAC species	0 x 3	0
1.					FACU species	50 x 4	200
2.					UPL species	50 x 5	250
3.					Total	100	450
4.					Prevalence Index: 4.50		
5.					Hydrophytic Vegetation Indicators:		
		0	Total Cover		Rapid Test for Hydrophytic Veg.		
Herb Stratum	Plot size: 5'				Dominance Test is >50%		
1. <i>Bromus inermis</i>		50	Y	UPL 5	Prevalence Index is <3.0*		
2. <i>Solidago canadensis</i>		20	Y	FACU 4	Morphological Adaptations*		
3. <i>Cirsium arvense</i>		10	N	FACU 4	Problematic Hydrophytic Vegetation*		
4. <i>Vicia sativa</i>		10	N	FACU 4	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
5. <i>Allium vineale</i>		5	N	FACU 4	Hydrophytic Vegetation Present?		
6. <i>Asclepias syriaca</i>		5	N	FACU 4	Yes	No	x
7.							
8.							
		100	Total Cover				
Woody Vine Stratum	Plot size: 15'						
1.							
2.							
		0	Total Cover				
Remarks:							

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)								
Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					SiCL	Fill

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

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

Restrictive Layer (if observed):	Type:	Hydric Soil Present?	Yes	No	X
	Depth (Inches):				
Remarks:					

Wetland Hydrology Indicators:									
Primary Indicators (check all that apply)					Secondary Indicators				
<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	<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 Soil (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"/>	Guage or Well Data (D9)						
<input type="checkbox"/>	Sparsely Vegetated Concave Surface	<input type="checkbox"/>	Other						
Field Observations: Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No X Depth (inches)					Hydrology Indicators Present? Yes No X				
Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									

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

9/23/2022 1:55:02 PM

in

Case No(s). 22-0641-EL-BNR

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