Construction Notice for Haviland-Grover Hill 138 kV Transmission Line Project

PUCO Case No. 24-0947-EL-BNR

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

Submitted by:
Ohio Power Company

October 24, 2024

CONSTRUCTION NOTICE

Ohio Power Company
Haviland-Grover Hill 138 kV Transmission Line Project

4906-6-05

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

4906-6-5(B) General Information

B(1) Project Description

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

The Company proposes the Haviland-Grover Hill 138 kV Transmission Line Project (the "Project") in Blue Creek Township, Paulding County, Ohio. The purpose of the Project is to provide a 138 kV interconnection to the Grover Hill Wind Farm (OPSB Case Number 20-0417-EL-BGN), proposed by Grover Hill Wind LLC., an Independent Power Producer ("IPP"). The Project will install less than 0.1 mile of 138 kV line, extending north out of the Haviland Station to connect to a Point of Interconnection ("POI") with the IPP's 138 kV transmission line. The Project will be located within a 100-foot-wide right-of-way ("ROW"), located on property owned by the Company and a private landowner. The IPP will also require adjusting a portion of the Haviland-North Delphos 138 kV transmission line, which will be submitted to OPSB under separate cover (Case No. 24-0946-EL-BNR). The location of the Project is shown on Figure 1 and Figure 2 in Appendix A.

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

> *(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:*
>
> *(a) Line(s) not greater than 0.2 miles in length.*

The Project has been assigned PUCO Case No. 24-0947-EL-BNR

B(2) Statement of Need

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

Grover Hill Wind LLC plans to build a 150 MW wind generation facility in Paulding County, Ohio. As part of the AE1-245 IPP Interconnection Service Agreement, the Company must connect transmission assets to the proposed wind generation facility. To address the IPP's plans, the Company will install less than 0.1 mile of new 138 kV transmission line to connect to the IPP's POI, which is the subject of this application. The Company will also adjust less than 0.1 mile of the existing Haviland-North Delphos 138 KV Transmission Line to accommodate changes required at Haviland Station to serve the IPP.

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

The Project has been assigned a PJM upgrade number of n8434.2. The Project was not included in the Company's 2024 Long Term Forecast Report because the solution was not known at the time of filing.

B(3) Project Location

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

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

B(4) Alternatives Considered

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

The Project will require construction of less than 0.1 mile of 138 kV transmission line from Haviland Station to the IPP's POI. Due to the short nature of the transmission line and the IPP's POI, no other alternatives were considered. Other alternatives would require impacting additional neighboring properties and would add additional transmission length to the Project without any additional benefit. The proposed Project is not anticipated to impact wetlands, streams, or any known cultural resource areas eligible for the National Register of Historic Places (NRHP). Therefore, the Project represents the most suitable location and is the most appropriate solution for meeting the Company and IPP's needs in the area.

B(5) Public Information Program

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

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

B(6) Construction Schedule

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

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

B(7) Area Map

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

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

To visit the Project from Columbus, take I-670/I-70 East for approximately 6.7 miles to I-270 North. Take the exit for I-270 North and go north on I-270 for approximately 8.5 miles to US-33 West. Take the exit for US-33 West and go west/northwest for approximately 93 miles to US-127 North. Go north on US-127 for approximately 31 miles to OH-114 West. Task OH-114 West for approximately 1.0 mile to County Road 107. Turn left on County Road 107 and go south for approximately 0.2 miles. The Project will be on the right, west of County Road 107. The latitude and longitude coordinates for the Project are 41°0'59.40"N and 84°35'35.43"W, respectively.

B(8) Property Agreements

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

A list of properties required for the Project is provided below. No other property easements, options, or land use agreements are necessary to construct the Project.

Property Parcel Number	Agreement Type	Easement Agreement Obtained (Yes/No)
05-26S-011-00	Company Owned	N/A
05-26S-001-00	New Easement	No

The form easement in Appendix B represents the easement rights the Company would seek if condemnation proceedings were necessary to construct, operate and maintain, these facilities.

B(9) Technical Features

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

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

The transmission line construction is estimated to include the following:

Voltage:	138 kV
Conductors:	795 KCM 26/7 ACSR Drake
Static Wire:	7#8 Alumoweld 7 strand
Insulators:	Polymer Dead End Insulators with Corona Ring
ROW Width:	100 Feet
Structure Types:	Two (2) single circuit galvanized steel poles, custom deadend structures on drilled pier concrete foundations

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately $1,954,700 using a Class 4 estimate. The costs for this Project will be recovered through total reimbursement by the IPP.

B(10) Social and Economic Impacts

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

B(10)(a) Land Use Characteristics

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

The Project is located in Blue Creek Township, Paulding County, Ohio. The Paulding County Auditor website (https://www.pauldingcountyauditor.com/) lists the land uses of these parcels as "Commercial/Utility" and "Other Industrial Structures". Field observations indicated that the Project area is comprised of industrial land (existing substation; 0.3 acre), maintained lawn (0.2 acre), new field (less than 0.1 acre), and graveled land (less than 0.1 acre). The Company does not anticipate the need to clear trees for the Project.

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

B(10)(b) Agricultural Land Information

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

The Project does not impact agricultural land. The Paulding County Auditor's Office was contacted to obtain information about Agricultural District Lands and received a response on August 27, 2024, which identified that neither of the parcels located within the Project area are enrolled in the Agricultural District Land program.

B(10)(c) Archaeological and Cultural Resources

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

Phase I archaeological and history/architectural surveys were conducted by the Company's consultant for the Project in January and March of 2024. No sites listed on, or eligible for listing on, the National Register of Historic Places were identified within the Project area or adjacent portions of the parcels surveyed for cultural resources. Correspondence from the State Historic Preservation Office ("SHPO") was received on February 15 and April 25, 2024 and is included in Appendix C. The SHPO stated that they agree the Project will have no effect on historic properties and no further coordination is necessary.

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

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

Best management practices ("BMPs") will be implemented and maintained to minimize erosion and control sediment to protect surface water quality during storm events. Because less than one acre of land disturbance will be required for the Project, a project-specific Storm Water Pollution Prevention Plan ("SWPPP") will not be required to be prepared and a Notice of Intent ("NOI") will not be required to be filed

with the Ohio Environmental Protection Agency ("OEPA") for authorization of construction storm water discharges under General Permit OHC000006.

No wetlands, streams, or open waters were observed within the proposed ROW or access routes for the Project (see Ecological Survey Report provided in Appendix D). Therefore, the Project will not require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or a Section 401 Water Quality Certification or Isolated Wetland Permit from the Ohio Environmental Protection Agency.

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

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

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

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

As part of the ecological study completed for the Project, a coordination letter was submitted to the U.S. Fish and Wildlife Service ("USFWS") Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. In their January 12, 2024 response letter, the USFWS (Appendix C) stated that due to the project type, size, and location, they do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat.

An environmental review request letter was submitted to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate and a response letter was received on February 5, 2024 (Appendix C). According to the ODNR, the Indiana bat (*Myotis sodalis*; state-listed and federally listed endangered), little brown bat (*Myotis lucifugus*; state-listed endangered), northern long-eared bat (*Myotis septentrionalis*; state-listed endangered), and tricolored bat (*Perimyotis subflavus*; state-listed endangered and federally proposed endangered) occur statewide in Ohio and the Project is located within the vicinity of records for the Indiana bat. These species roost in trees during the summer months and the little brown bat and tricolored bat also roost in buildings. The ODNR 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 diameter at breast height of ≥ 20 inches if possible. No potentially suitable summer roosting habitat for these species was identified within the Project area.

The ODNR also recommended that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the Project area. If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the Project area, the ODNR requested that this information be sent to them for project recommendations. As seen on Figure 4

in the Ecological Survey Report (Appendix D), no potentially suitable hibernacula are mapped as being located within the Project area or within 0.25 miles of the Project area. No tree clearing is required for the Project. Additionally, no buildings will be removed as part of the Project. Therefore, no impacts to the Indiana bat, northern long-eared bat, little brown bat, or tricolored bat are anticipated.

The response letter received from the ODNR Office of Real Estate also states that the Project is within the range of the following aquatic state-listed endangered and/or threatened species: clubshell (*Pleurobema clava*; state-listed and federally listed endangered), pondhorn (*Uniomerus tetralasmus*; state-listed threatened), and greater redhorse (*Moxostoma valenciennesi*; state-listed threatened). However, due to the Project location, and that there is no in-water work proposed in a perennial stream, the ODNR states that this Project is not likely to impact these species.

The ODNR stated that the Project is within the range of the Blanding's turtle (*Emydoidea blandingii*; state-listed threatenend) and the Kirtland's snake (*Clonophis kirtlandii*; state-listed threatened). However, the ODNR response letter states that due to the location, type of habitat within the Project area, and the type of work proposed, the Project is not likely to impact these species.

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

B(10)(f) Areas of Ecological Concern

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

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

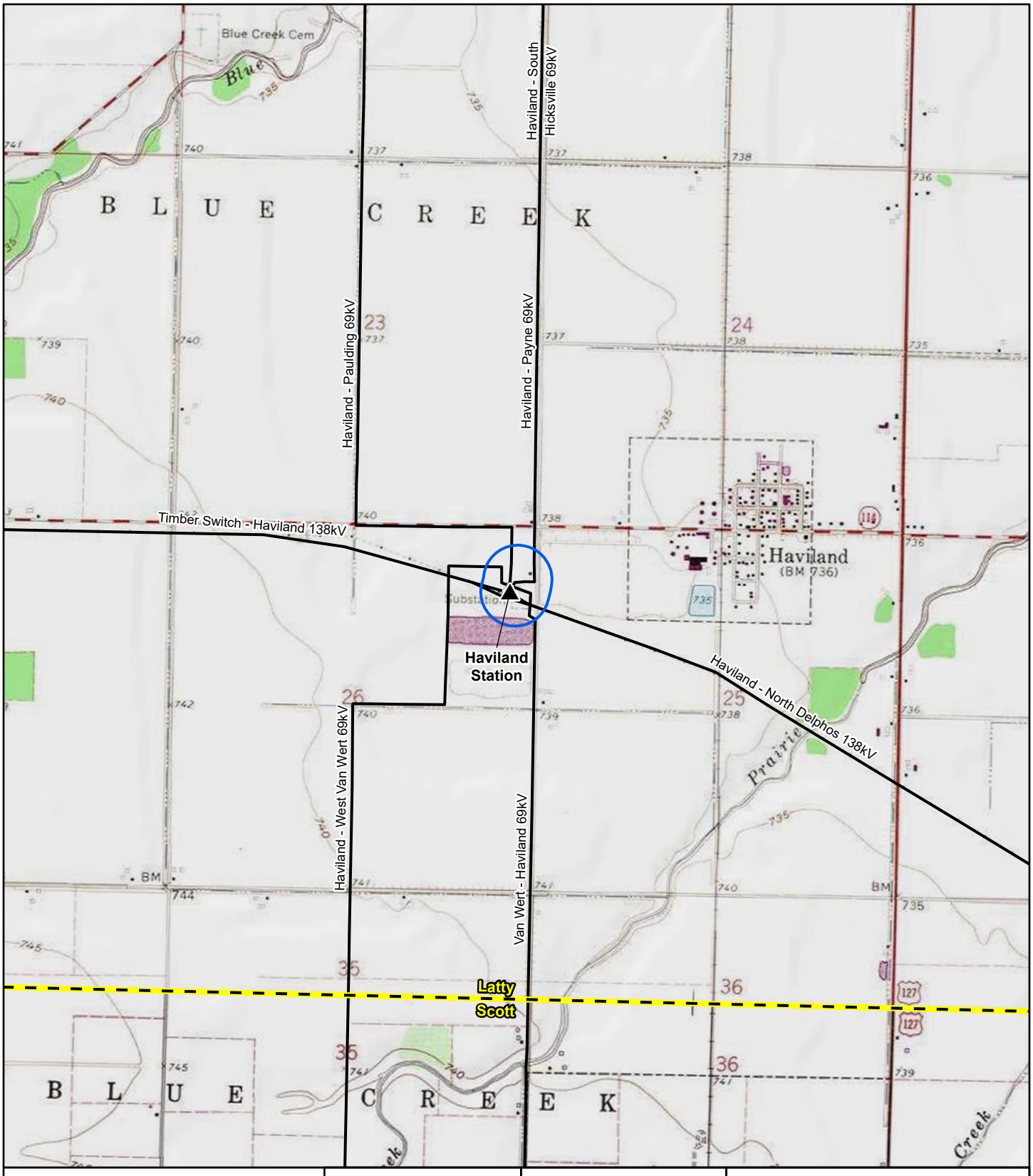
The FEMA Flood Insurance Rate Maps with coverage of the Project area were consulted to identify any floodplains/flood hazard areas that have been mapped in the Project area (specifically, map numbers 39125C0290E, 39125C029SE, and 39125C0315E). Based on these maps, no mapped FEMA floodplains or floodways are located within the Project area.

An ecological resources survey and wetland and waterbody delineation study was completed by the Company's consultant for the Project area in January and June of 2024. The Ecological Survey Report is included in Appendix D and contains additional information regarding the habitats and land uses observed with the Project area. No wetlands, streams, or open waters were observed within the Project area.

B(10)(g) Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

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

APPENDIX A Project Figures



- Existing Substation
- Existing Transmission Line
- USGS Topographic Lines
- Project Area

Data Sources: AEP, USGS7.5' Topographic Quadrangles (Latty)

Coordinate System and Datum
NAD 1983 State Plane Ohio North

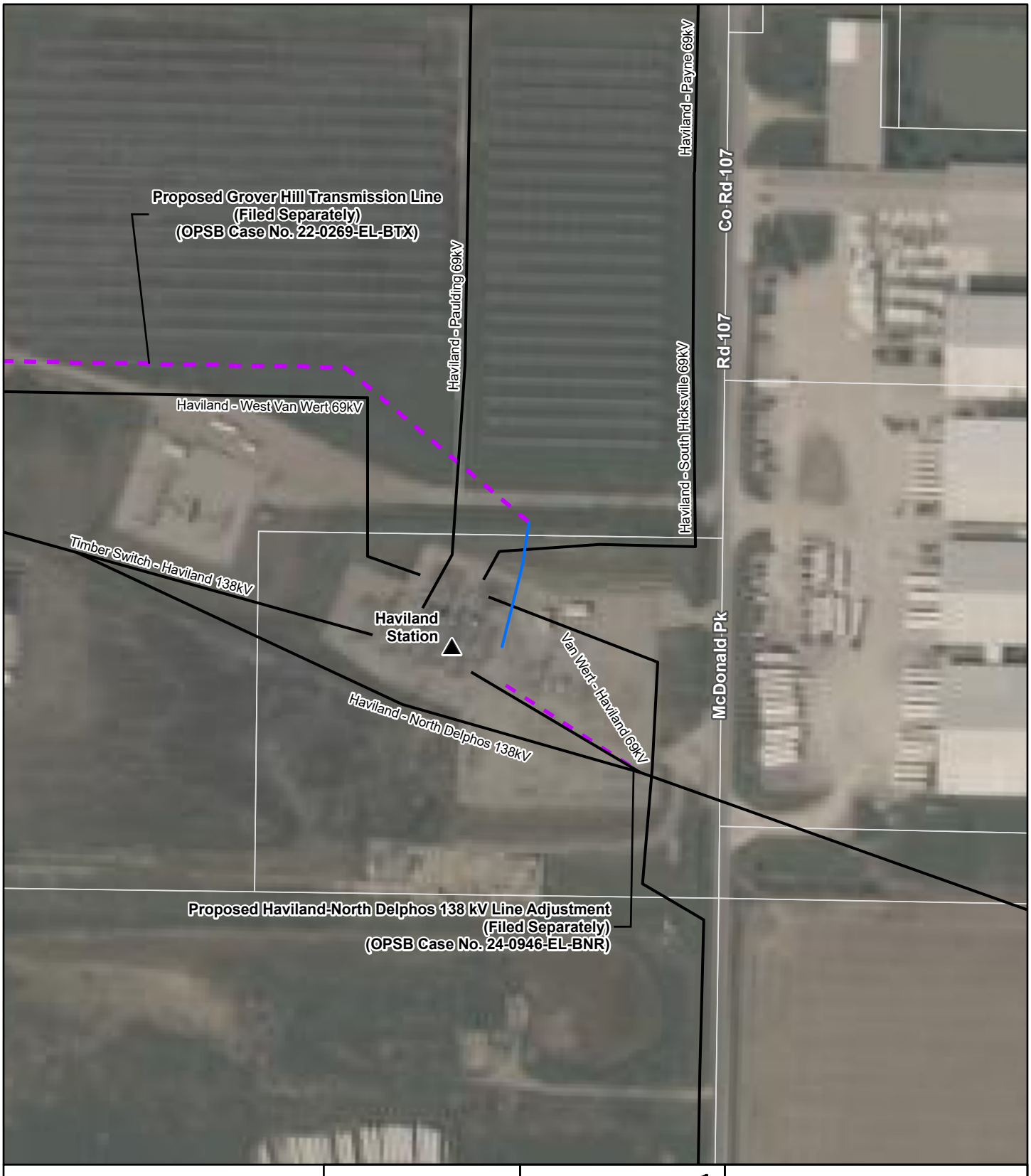
October 18, 2024

FIGURE 1
TOPOGRAPHIC OVERVIEW

AEP OHIO
An AEP Company
BOUNDLESS ENERGY™

Haviland - Grover Hill 138 kV Transmission Line Project

0 1,000 2,000
Feet



▲ Existing Substation
— Existing Transmission Line
— Proposed Transmission Line
- - Proposed Transmission Line (Filed Separately)
Parcel Boundary

Data Sources: AEP, OGRIP, NAIP Imagery, 2021

Coordinate System and Datum
NAD 1983 State Plane Ohio North

October 18, 2024

FIGURE 2
AERIAL MAP

AEP OHIO
An AEP Company
BOUNDLESS ENERGY™

Haviland - Grover Hill 138 kV Transmission Line Project

0 100 200
Feet

APPENDIX B Form Easement

Line No.:
Easement No.:

EASEMENT AND RIGHT OF WAY

On this _____ day of _____, 20__, in consideration of Ten and NO/100 Dollars ($10.00), and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the covenants hereinafter set forth, [Landowner(s)], married / unmarried / marital status unknown, whose address is [mailing address] ("Grantor"), whether one or more persons, hereby grants, sells, conveys, and warrants to Ohio Power Company, an Ohio corporation, a unit of American Electric Power, whose principal business address is 1 Riverside Plaza, Columbus, Ohio 43215 ("AEP") and its successors and affiliates, a permanent easement and right of way ("Easement") for a single electric transmission line not to exceed [138] kV, [for distribution purposes,] and for internal communication purposes related to the supply of electricity (the "Transmission Line"), being, in, on, over, under, through and across the following described lands of Grantor, situated in the State of Ohio, County of [County], and Township of [Township] and being a part of [Legal Description from easement or title report] ("Grantor's Property").

[Names of all dower interest parties] join herein for the purpose of releasing all dower rights in regard to the Easement.

Grantor claims title by [name of vesting instrument] dated x/xx/xxxx from [insert name of first grantor, et al.], recorded on x/xx/xxxx in [record volume, page] in the [County] County Recorder's Office.

Auditor/Key/Tax Number: [Insert Parcel Information]

The Easement Area is more fully described and depicted on Exhibit "A", a copy of which is attached hereto and made a part hereof ("Easement Area").

GRANTOR FURTHER GRANTS AEP THE FOLLOWING RIGHTS:

The right, now or in the future, to construct, reconstruct, operate, maintain, alter, improve, inspect, patrol, protect, repair, remove, replace, upgrade and relocate within the Easement Area, structures and appurtenant equipment necessary for the Transmission Line.

The right, in AEP's discretion, now or in the future, to cut down, trim or remove, and otherwise control, any and all trees, overhanging branches, vegetation or brush situated within the Easement Area and any temporary access roads or temporary workspaces identified on Exhibit "A" outside the Easement Area. Provided, however, that AEP shall not use herbicides or similar products for these purposes on any portions of the Grantor's Property maintained for residential or agricultural use. AEP shall also have the right to cut down, trim or remove trees situated on Grantor's Property which adjoin the Easement Area within the Tree Protection Zone when in the reasonable opinion of AEP those trees are dead, dying, diseased, leaning, or structurally defective and may endanger the safety of, or interfere with the construction, operation or maintenance of AEP's facilities or ingress or egress to, from or along the Easement Area. The Tree Protection Zone extends eighty feet on all sides of the Easement Area depicted in Exhibit A.

AEP shall also have the right of reasonable ingress and egress over, across and upon the Easement Area only, unless additional access routes are depicted in the attached Exhibit A. Provided, however, that in the event access over, across and upon the Easement Area – and access routes, if any, shown in Exhibit A – shall become blocked or otherwise rendered unsafe or hazardous for use, AEP may temporarily access the Easement Area from other points across Grantor's Property, so long as that access is both reasonable and limited to the duration of the interference or safety hazard. AEP shall return the access area to its preexisting condition or pay damages to Grantor.

AEP shall also have the right to use temporary workspaces and temporary access roads outside the Easement Area, if any are shown on Exhibit A, in connection with its initial construction of the Transmission Line. AEP may shift the location of such temporary workspaces and/or temporary access roads, if any, up to twenty (20) feet in any direction, as field conditions or other requirements dictate. Upon completion of the overall Transmission Line project, but in no event later than two (2) years following the start of construction on Grantor's Property, AEP shall remove its equipment from all such temporary workspaces and temporary access roads outside the Easement Area, and AEP's temporary rights outside of the Easement Area shall automatically cease, terminate and revert to Grantor. AEP shall return any such areas to their preexisting condition or pay damages to Grantor as soon as practicable.

THIS GRANT IS SUBJECT TO THE FOLLOWING CONDITIONS:

Grantor reserves the right to cultivate annual crops, pasture, construct fences (provided gates are installed that adequately provide AEP the access rights conveyed herein) and roads or otherwise use Grantor's Property encumbered by this Easement in any way not inconsistent with the rights herein granted. In no event, however, shall Grantor, its heirs, successors, affiliates and assigns

plant or cultivate any trees or place, construct, install, erect or permit any temporary or permanent building, structure, improvement or obstruction including but not limited to, storage tanks, billboards, signs, sheds, dumpsters, light poles, water impoundments, above ground irrigation systems, swimming pools or wells, or permit any alteration of the ground elevation, over, or within the Easement Area. AEP may, at Grantor's cost, remove any structure or obstruction if placed within the Easement Area, and may re-grade any alterations of the ground elevation within the Easement Area.

AEP agrees to repair or pay Grantor for actual damages sustained by Grantor to crops, fences, gates, irrigation and drainage systems, drives, or lawns that are permitted herein, when such damages arise out of AEP's exercise of the rights herein granted.

This instrument contains the complete agreement, expressed or implied between the parties herein and shall inure to the benefit of and be binding on their respective successors, affiliates, heirs, executors, and administrators.

This Easement may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

Any remaining space on this page left intentionally blank. See next page(s) for signature(s).

IN WITNESS WHEREOF, said Grantor have hereunto set their hand(s) and seal(s) as of the last date set forth below.

GRANTOR

[FOR A BUSINESS ENTITY / TRUST]

[name of entity/trust with kind of business association identified]
By:_____
Print name:_____
Its Authorized Signer

State of Ohio §
§ SS:
County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 2021 by _____, the _____ of [entity/trust], a/an [state of incorporation] [type of entity/trust], on behalf of [entity/trust].

_____
Notary

[FOR AN INDIVIDUAL]

[name of individual]

_____

State of Ohio §
§ SS:
County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 2021 by [name of individual].

_____
Notary

This instrument prepared by Marland Turner, American Electric Power Service Corporation, 1 Riverside Plaza, Columbus, OH 43215 for and on behalf of AEP Ohio Transmission Company, Inc., a unit of American Electric Power.

When recorded return to: American Electric Power – Transmission Right of Way, 8600 Smith's Mill Road, New Albany, OH 43054.

APPENDIX C Agency Correspondence

In reply, refer to
2024-PAU-60233

February 15, 2024

Ryan Weller
Weller & Associates, Inc.
1395 W. Fifth Ave.
Columbus, OH 43212
rweller@wellercrm.com

RE: Haviland Station Project, Blue Creek Township, Paulding County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received January 22,2024 regarding the proposed Haviland Station Project, Blue Creek Township, Paulding County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4 & 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Cultural Resource Management Investigations for the Proposed .26 ha (.68 ac) Haviland Station Project in Blue Creek Township, Paulding County, Ohio* by Ryan J. Weller and Justin Fryer (Weller & Associates, Inc. 2024). This project was conducted for an interconnection line to a proposed IPP solar facility.

A literature review, visual inspection, and shovel test unit excavation were completed as part of the investigations. Portions of the project area had been previously surveyed for cultural resources. No previously identified archaeological sites are located within the project area and no new archaeological sites were found during this survey. Our office agrees no additional archaeological survey is needed.

The entirety of the architectural Area of Potential Effects (APE) was previously surveyed by Weller (2023). Our office concurred with Weller's finding of no effect on historic properties.

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

Sincerely,

Catherine Gullett, Project Reviews Coordinator
Resource Protection and Review

RPR Serial No: 1101520

In reply, refer to
2024-PAU-60233

April 25, 2024

Ryan Weller
Weller & Associates, Inc.
1395 W. Fifth Ave.
Columbus, OH 43212
rweller@wellercrm.com

RE: Haviland Station Project, Blue Creek Township, Paulding County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received April 2, 2024, regarding the proposed Haviland Station Project, Blue Creek Township, Paulding County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4 & 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Addendum Cultural Resource Management Investigations for Haviland Station Project in Blue Creek Township, Paulding County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2024). This project was conducted for a small expansion (0.30 ac.) of a project area for an interconnection line to a proposed IPP solar facility.

A literature review, visual inspection, and surface collection were completed as part of the investigations. Portions of the project area had been previously surveyed for cultural resources. No previously identified archaeological sites are located within the project area and no new archaeological sites were found during this survey. Our office agrees no additional archaeological survey is needed. There were no additional architectural resources identified in relation to the addendum project area.

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

Sincerely,

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

RPR Serial No: 1102530

United States Department of the Interior

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

January 12, 2024

Project Code: 2024-0026839

Dear Daniel Godec:

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

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

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

Sincerely,

Scott Hicks

Scott Hicks
Acting Field Office Supervisor

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

February 5, 2024

Daniel Godec
Stantec Consulting Services Inc.
11687 Lebanon Road
Cincinnati, Ohio 45241

Re: 24-0031_AEP Haviland 138 kV Gen-Tie Line

Project: The proposed project involves the construction of a single span of 138 kV transmission line just outside of the existing Haviland Station to provide a 138 kV interconnection to a nearby proposed Independent Power Producer (IPP) solar facility.

Location: The proposed project is located in Blue Creek Township, Paulding County, Ohio.

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

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

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

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

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

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

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

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

The project is within the range of the club shell (*Pleurobema clava*), a state endangered and federally endangered mussel, and the pondhorn *(Uniomerus tetralasmus*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

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

The project is within the range of the Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

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

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

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

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

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

Mike Pettegrew
Environmental Services Administrator

APPENDIX D Ecological Survey Report

Haviland 138 kV Generation Tie Line Project

Ecological Survey Report

Prepared for:

Black & Veatch Corporation
11401 Lamar Avenue
Overland Park, KS 66211

Prepared by:

Stantec Consulting Services, Inc.
10200 Alliance Road, Suite 300
Cincinnati, OH 45242

July 30, 2024

Sign-off Sheet

This document entitled Haviland 138 kV Generation Tie Line Project Ecological Survey Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Black & Veatch Corporation. Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 

(signature)

Malea Casey

Reviewed by 

(signature)

Aaron Kwolek

Reviewed by 

(signature)

Dan Godec

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1.0 INTRODUCTION

AEP Ohio Transmission Company, Inc. (AEP) is proposing construction activities associated with the Haviland 138 kV Generation Tie Line Project (the Project). AEP is proposing to construct a single span of 138 kV transmission line just outside of the existing Haviland Station to provide a 138 kV interconnection to a nearby proposed Independent Power Producer (IPP) solar facility (Figure 1, Appendix A). The Project area was surveyed for wetlands, waterbodies, open water features, and potential threatened, endangered, and rare species habitat by Stantec Consulting Services Inc. (Stantec) biologists on January 11 and June 25, 2024. The approximate locations of features located up to 50 feet outside of the Project area were also recorded during the field surveys, where landowner access was permitted. However, no data forms were collected on features that did not extend into the Project area. The approximate locations of these features are shown on the Figure 2 maps in Appendix A as "approximate" wetlands, streams (waterways), open waters, and upland drainage features.

2.0 METHODS

2.1 WETLAND DELINEATION

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

2.2 STREAM DELINEATION

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

2.3 RARE SPECIES

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

3.0 RESULTS

3.1 TERRESTRIAL HABITAT

Stantec completed field surveys for potentially suitable habitats for threatened and endangered species within the Project area on January 11 and June 25, 2024. Figure 3 (Appendix A) shows the vegetation communities/habitats and land cover types identified within the Project area and the locations of any identified rare, threatened, or endangered species habitats observed within the Project area during the time of the habitat assessment surveys. Representative photographs of the vegetation communities/habitats and land cover types identified within the Project area are included in Appendix C of this report (photo locations are shown on Figure 3, Appendix A). Information regarding the vegetation communities/habitats/land cover types identified within the Project area is provided in Table 1.

Table 1. Vegetation Communities and Land Cover Types Found within the Haviland 138 kV Generation Tie Line Project Area, Paulding County, Ohio

Vegetation Communities and Land Cover Types within the Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
Industrial Land	Extreme Disturbance/existing gravel area (little to no vegetation is present in these habitats).	No	3.30
Maintained Lawn	Extreme Disturbance/Ruderal Community (dominated by planted non-native species, opportunistic invaders, and/or native highly tolerant taxa). Common plant species included tall fescue (*Schedonorus arundinaceus*), Japanese bristlegrass (*Setaria faberi*), and white clover (*Trifolium repens*).	No	1.08
New Field	Extreme Disturbance/Ruderal Community (dominated by planted non-native species, opportunistic invaders, and/or native highly tolerant taxa). Common plant species included tall fescue, Japanese bristlegrass, giant ragweed (*Ambrosia trifida*), and Queen Anne's lace (*Daucus carota*).	No	0.17
Early Successional Deciduous Forest	Moderate Disturbance/Natural Community (dominated by native woody and herbaceous species and/or opportunistic invaders). Common plant species included honey locust (*Gleditsia triacanthos*), Japanese bristlegrass, and giant ragweed.	No	0.03
		TOTAL	**4.58**

3.2 WETLANDS

Stantec completed field surveys for wetlands within the Project area on January 11 and June 25, 2024. No wetlands were identified within the Project area and as seen on Figure 2, no National Wetlands Inventory-mapped wetlands are located within the Project area. However, two wetland determination sample point locations were evaluated but did not meet the requirements to be a wetland. Representative photographs of the evaluated wetland determination sample point locations are included in Appendix C of this report (photograph locations are shown on Figure 2, Appendix A). The completed wetland determination data forms are included in Appendix D.

3.3 STREAMS

One ephemeral stream was delineated within the Project area during the field surveys conducted on January 11 and June 25, 2024. Figure 2 (Appendix B) shows the location of the stream identified by Stantec within the Project area. Representative photographs of the stream are included in Appendix C of this report (photo locations are shown on Figure 2, Appendix A). The completed HHEI data forms are included in Appendix D. More information regarding the stream identified within the Project area and proposed impacts information is summarized in Table 2 below.

Results
July 30, 2024

Table 2. Summary of Stream Resources Found within the Haviland 138 kV Generation Tie Line Project Area, Paulding County, Ohio

Stream ID	Location		Stream Type[1]	Stream Name[2]	Delineation Length (feet)	Bankfull Width (feet)	OHWM[3] Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Crossing	Proposed Impacts	
	Latitude	Longitude						Method[4]	Score[5]	Category/ Rating/OAC Designation[5,6]			Fill Type	Length (feet)
Stream 1	41.016687	-84.592151	Ephemeral	UNT to Prairie Creek	116	6	5.5	HHEI	52	Modified Class II PHW	Eligible	N/A[7]	N/A[7]	N/A[7]
					140	6.9	5	HHEI	42					
				TOTAL	256								**TOTAL**	N/A[7]

[1] Stream Classification is based on the 22250 Federal Register/Vol. 85, No. 10 (USACE 2002).
[2] UNT = Unnamed Tributary
[3] OHWM = Ordinary High Water Mark
[4] HHEI = Headwater Habitat Evaluation Index
[5] Based on the designated use evaluation presented in the Field Methods for Evaluating Primary Headwater Habitat Streams in Ohio, Version 4.0 (OEPA 2020).
[6] Based on Ohio Administrative Code (OAC) 3745-1-16.
[7] N/A = Not applicable. No stream impacts are anticipated.

3.4 OPEN WATERS

No open waters were identified within the Project area during Stantec's January 11 and June 25, 2024 site visits.

3.5 RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Table 3. Summary of Potential Federally Listed and Ohio State-Listed Species within the Haviland 138 kV Generation Tie Line Project Area, Paulding County, Ohio

Common Name/ Scientific Name	State Listed Status[1,2]	Federally Listed Status[1,3]	Typical Habitat	Habitat Observed	Agency Comments (Appendix B)	Potential Impacts and Avoidance Dates
Fishes						
Greater Redhorse/ *Moxostoma valenciennesi*	T	N/A	Typical habitat is moderate to fast-flowing, medium-sized to large rivers; sometimes occurs in river reservoirs and large lakes; prefers clear water with substrates of clean sand, gravel, or boulders. Spawning habitat is largely the same as non-spawning habitat and includes shallow runs with sand and gravel substrates. The habitat of the greater redhorse in Ohio is large streams with clear water throughout most of the year and bottoms of clean sand, gravel, or boulders (NatureServe 2024).	No suitable habitat was observed within the Project area.	**ODNR** – The Project is within the range of the greater redhorse. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species. **USFWS** - No comments received.	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts to this species are anticipated.
Mussels						
Clubshell/*Pleurobema clava*	E	E	This is a species of small to medium-sized rivers and streams; generally found in clean, coarse sand and gravel in runs, often just downstream of a riffle, and cannot tolerate mud or slackwater conditions (NatureServe 2024).	No suitable habitat was observed within the Project area.	**ODNR** – The Project is within the range of the clubshell. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species. **USFWS** - Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat.	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts to this species are anticipated.
Pondhorn/*Uniomerus tetralasmus*	T	N/A	This species typically inhabits the quiet or slow-moving, shallow waters of sloughs, borrow pits, ponds, ditches, and meandering streams. It is tolerant to poor water conditions and can be found well buried in a substrate of fine silt and/or mud (NatureServe 2024).	No suitable habitat was observed within the Project area.	**ODNR** – The Project is within the range of the pondhorn. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species. **USFWS** - No comments received.	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts to this species are anticipated.
Mammals						
Indiana Bat/*Myotis sodalis*	E	E	The Indiana bat is likely distributed over the entire State of Ohio, though not uniformly. This species generally forages in openings and edge habitats within upland and floodplain forest, but they also forage over old fields and pastures (Brack et al. 2010). Natural roost structures include trees (live or dead) with exfoliating bark, and exposure to solar radiation. Other important factors for roost trees include relative location to other trees, a permanent water source and foraging areas; Dead trees are preferred as maternity roosts; however, live trees are often used as secondary roosts depending on microclimate conditions (USFWS 2007; USFWS 2023). Roosts have also occasionally been found to consist of cracks and hollows in trees, utility poles, buildings, and bat boxes. Primarily use caves for hibernacula, although are also known to hibernate in abandoned underground mines (Brack et al. 2010).	No potentially suitable roosting habitat or hibernacula were observed within the Project area.	**ODNR** – The Project is within the vicinity of records for the Indiana bat. 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 the ODNR (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov). In addition, the entire state of Ohio is within the range of the Indiana bat. The ODNR recommends tree cutting only occurs from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with diameter at breast height (dbh) ≥ 20 if possible. In addition, ODNR recommends a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the	No potentially suitable roosting habitat was observed within the Project area and it is anticipated that all required tree clearing will take place between October 1 and March 31. If any summer tree clearing is required, AEP will proceed accordingly with agency recommendations to avoid impacts to this species. Additionally, a desktop bat hibernacula habitat assessment was completed by Stantec. The entirety of the Project area is within an area of karst geology (Appendix A, Figure 4). However, no underground mines, mine openings, caves, or any other potentially suitable hibernacula were observed within the Project area during the field surveys completed by Stantec. **Avoidance Dates: April 1 – September 30**

Common Name/ Scientific Name	State Listed Status[1,2]	Federally Listed Status[1,3]	Typical Habitat	Habitat Observed	Agency Comments (Appendix B)	Potential Impacts and Avoidance Dates
					Project area, please send this information to the ODNR for project recommendations. **USFWS** – Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat.	
Northern Long-eared Bat/*Myotis septentrionalis*	E	E	The northern long-eared bat is found throughout Ohio. This species generally forages in forested habitat and openings in forested habitat and utilizes cracks, cavities, and loose bark within live and dead trees, as well as buildings as roosting habitat (Brack et al. 2010; USFWS 2020). The species utilizes caves and abandoned mines as winter hibernacula. Various sized caves are used providing they have a constant temperature, high humidity, and little to no air current (Brack et al. 2010).	No potentially suitable roosting habitat or hibernacula were observed within the Project area.	**ODNR** - The entire state of Ohio is within the range of the northern long-eared bat. The ODNR recommends tree cutting only occurs 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. In addition, ODNR recommends a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the Project area, please send this information to the ODNR for project recommendations. **USFWS** - Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat.	No potentially suitable roosting habitat was observed within the Project area and it is anticipated that all required tree clearing will take place between October 1 and March 31. If any summer tree clearing is required, AEP will proceed accordingly with agency recommendations to avoid impacts to this species. Additionally, a desktop bat hibernacula habitat assessment was completed by Stantec. The entirety of the Project area is within an area of karst geology (Appendix A, Figure 4). However, no underground mines, mine openings, caves, or any other potentially suitable hibernacula were observed within the Project area during the field surveys completed by Stantec. **Avoidance Dates: April 1 – September 30**
Little Brown Bat/*Myotis lucifugus*	E	N/A	The little brown bat is found throughout Ohio. This species seems to prefer to forage over water but also forages among trees in rather open areas (Harvey et al. 1999). During summer, it typically inhabits buildings, attics, church belfries, barns and outbuildings, and occasionally more natural habitats such as sloughing bark of a dead tree. During summer, two types of roosts are utilized: day roosts and night roosts. Day roosts are the maternity colony roost, while little brown bats often roost in other areas where they rest and congregate to digest their food in between foraging bouts. In Ohio, this species typically utilizes caves and mines as hibernacula, although at least one hibernaculum was found to be located in an attic of an old building (Brack et al. 2010).	No potentially suitable roosting habitat or hibernacula were observed within the Project area.	**ODNR** – The entire state of Ohio is within the range of the little brown bat. The ODNR recommends tree cutting only occurs 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. In addition, ODNR recommends a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the Project area, please send this information to the ODNR for project recommendations. **USFWS** – No comments received.	No potentially suitable roosting habitat was observed within the Project area and it is anticipated that all required tree clearing will take place between October 1 and March 31. If any summer tree clearing is required, AEP will proceed accordingly with agency recommendations to avoid impacts to this species. Additionally, a desktop bat hibernacula habitat assessment was completed by Stantec. The entirety of the Project area is within an area of karst geology (Appendix A, Figure 4). However, no underground mines, mine openings, caves, or any other potentially suitable hibernacula were observed within the Project area during the field surveys completed by Stantec. **Avoidance Dates: April 1 – September 30**
Tricolored Bat/*Perimyotis subflavus*	E	PE	The tricolored bat is found throughout Ohio. This species has been found to forage above and within a variety of habitats, including woodlands, agricultural fields, grassy areas, and over streamside vegetation (Sparks et al. 2011). Maternity colonies have often been found within clusters of dead leaves, hanging in trees. Maternity colonies have also been found in or on buildings. Little is known of male tricolored bats in summer, but it is thought that they are probably solitary and spend their days in similar situations, as well as crevices, caves and mines (Brack et al. 2010). In Ohio, this species typically utilizes caves and mines as hibernacula, utilizing a variety of situations, including very cold areas near cave entrances to deeper passages that seem to be too warm for other species of bats (Brack et al. 2010).	No potentially suitable roosting habitat or hibernacula were observed within the Project area.	**ODNR** – The entire state of Ohio is within the range of the tricolored bat. The ODNR recommends tree cutting only occurs 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. In addition, ODNR recommends a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if there are potential hibernacula present within the Project area. If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the Project area, please send this information to the ODNR for project recommendations. **USFWS** – Due to the project, type, size, and location, we do not anticipate adverse effects to federally	No potentially suitable roosting habitat was observed within the Project area and it is anticipated that all required tree clearing will take place between October 1 and March 31. If any summer tree clearing is required, AEP will proceed accordingly with agency recommendations to avoid impacts to this species. Additionally, a desktop bat hibernacula habitat assessment was completed by Stantec. The entirety of the Project area is within an area of karst geology (Appendix A, Figure 4). However, no underground mines, mine openings, caves, or any other potentially suitable hibernacula were observed within the Project area during the field surveys completed by Stantec. **Avoidance Dates: April 1 – September 30**

Common Name/ Scientific Name	State Listed Status[1,2]	Federally Listed Status[1,3]	Typical Habitat	Habitat Observed	Agency Comments (Appendix B)	Potential Impacts and Avoidance Dates
					endangered, threatened, or proposed species or proposed or designated critical habitat.	
Reptiles						
Blanding's Turtle/*Emydoidea blandingii*	T	N/A	Typical habitat includes marshes, ponds, swamps, lake shallows, backwater sloughs, shallow slow-moving rivers, protected coves and inlets of large lakes, oxbows, and pools adjacent to rivers, waters with soft bottom and aquatic vegetation. Sometimes leaves water and walks over land (NatureServe 2024).	No suitable habitat was observed within the Project area.	**ODNR** – The Project is within range of the Blanding's turtle. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Due to the location, the type of habitat within the Project area, and the type of work proposed, this Project is not likely to impact this species. **USFWS** - No comments received.	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams or ponds by AEP. Therefore, no impacts to this species are anticipated.
Kirtland's Snake/*Clonophis kirtlandii*	T	N/A	This secretive species prefers wet meadows and other wetlands (ODNR 2018). Occurs in relict prairie peninsula habitats: prairie fens, wet meadows, lakeplain wet prairies and associated open and wooded wetlands, seasonal marshes, open swamps, sparsely wooded hillsides, and the vicinity of ponds and sluggish creeks (NatureServe 2024).	No suitable habitat was observed within the Project area.	**ODNR** – The Project is within the range of the Kirtland's snake. This secretive species prefers wet meadows and other wetlands. Due to the location, the type of habitat within the Project area, and the type of work proposed, this Project is not likely to impact this species. **USFWS** - No comments received.	No suitable habitat was observed within the Project area. Therefore, no impacts to this species are anticipated.
Birds						
Northern Harrier/*Circus hudsonius*	E	N/A	Harriers hunt low over grasslands, with wings held in a distinctive dihedral (V-shape). This is a common migrant and winter species in Ohio; nesters are much rarer, although they occasionally breed in large marshes and grasslands (ODNR 2018). Northern harriers appear to be associated with large tracts of undisturbed habitat. They are uncommon in blocks of contiguous grassland or wetlands less than 100 hectares in size (Slater and Rock 2005).	No suitable nesting habitat was observed within the Project area.	**ODNR** – The Project is within the range of the northern harrier. 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. **USFWS** - No comments received.	Northern harriers require large tracts of wetlands and/or grasslands that are 100 hectares (247 acres) or more for suitable breeding/nesting habitat (Slater and Rock 2005). No suitable nesting habitat (large tracts of wetlands and/or grasslands) were observed within the Project area. Therefore, no impacts are anticipated, and avoidance dates are not applicable.

[1]E=Endangered; T=Threatened; PE=Proposed Endangered; N/A=Not Applicable
[2]According to ODNR, State Listed Wildlife and Plant Species by County (ODNR 2024a).
[3]According to the USFWS Information for Planning and Consultation website (USFWS 2024).

4.0 CONCLUSIONS AND RECOMMENDATIONS

Stantec conducted a wetland and waterbody delineation and a preliminary habitat assessment for threatened and endangered species within the Project area on January 11 and June 25, 2024. One ephemeral stream (Stream 1) totaling approximately 256 linear feet was identified within the Project area. See Table 2 for more information regarding the stream identified within the Project area. No wetlands or open waters were identified within the Project area. However, two wetland determination sample point locations were evaluated but did not meet the requirements to be a wetland. Data forms for the identified stream feature and wetland determination sample points are provided in Appendix D and representative photographs of the stream and wetland determination sample points within the Project area are provided in Appendix C.

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

An ODNR Ohio Natural Heritage Program data request and environmental review request letter was sent to the ODNR Office of Real Estate on January 4, 2024. The ODNR Office of Real Estate response letter dated February 5, 2024 (Appendix B) states that the Natural Heritage Database has no records of state-listed or federally listed threatened or endangered species within one mile of the Project area.

The ODNR stated that the entire state of Ohio is within the range of the state-listed endangered Indiana bat, northern long-eared bat, little brown bat, and tricolored bat and the Project is within the vicinity of records for the Indiana bat. The ODNR recommends tree cutting only occurs 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 ODNR also recommended that a desktop habitat assessment be conducted, followed by a field assessment if needed, to determine if there are potential bat hibernacula present within 0.25 miles of the Project area. Stantec completed a desktop habitat desktop assessment in accordance with the 2023 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (USFWS 2023a) utilizing available ODNR websites, including data on known abandoned or active mines (ODNR 2024b) and locations of known or suspected karst geology (ODNR 2024c). As part of the desktop assessment, Stantec identified that the entirety of the Project area is located within an area of karst geology (Figure 4, Appendix A). However, no abandoned or active underground mines, underground openings, caves, or any other potentially suitable bat hibernacula were observed within the Project area during the field surveys completed by Stantec. Therefore, no impacts to potential bat hibernacula are anticipated.

No potentially suitable summer bat roosting habitat was observed within the Project area. It is anticipated that AEP will conduct any required tree clearing activities between October 1 and

March 31 in order to avoid impacts to these species. If any summer tree clearing is required, AEP will proceed with agency recommendations to avoid impacts to these bat species.

The ODNR stated that the Project is within the range of the following listed mussel species: the federally endangered and state-listed endangered clubshell and the state threatened pondhorn. The Project is also within the range of the state-listed threatened greater redhorse. However, the ODNR stated that due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact these fish or mussel species.

The ODNR stated that the Project is within the range of the following reptile species: the state-listed threatened Blanding's turtle and Kirtland's snake. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The Project is also within the range of the northern harrier, a state endangered bird species. No suitable nesting habitat was observed for the northern harrier within the Project area and therefore this Project is not likely to impact this species.

A technical assistance request letter was submitted to the USFWS on January 4, 2024. The USFWS response letter dated January 12, 2024 stated that due to the Project type, size, and location they do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat.

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Appendix A FIGURES

A.1 FIGURE 1 – PROJECT LOCATION MAP

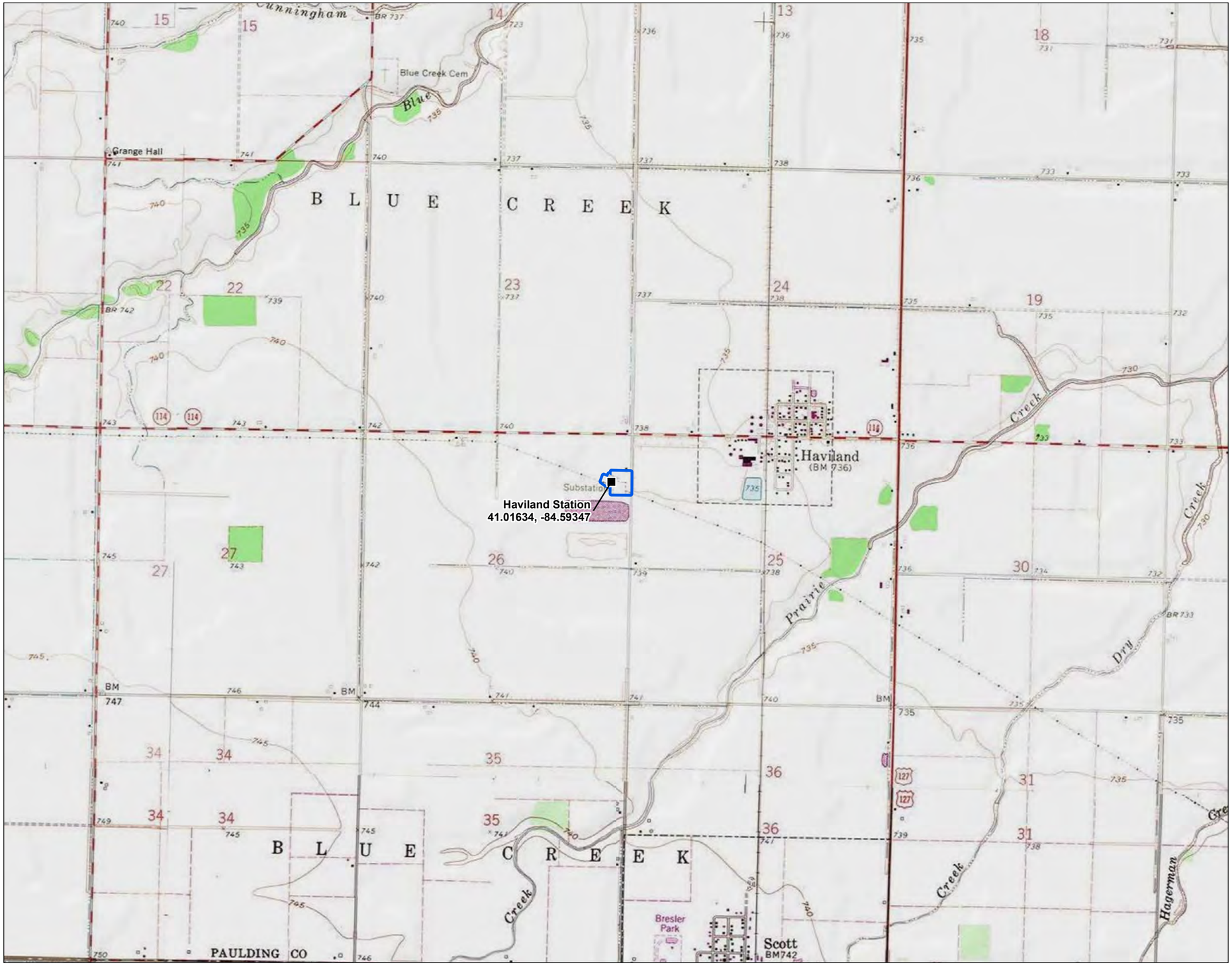


Figure No.
1

Title
Project Location Map

Client/Project 239000639
Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project

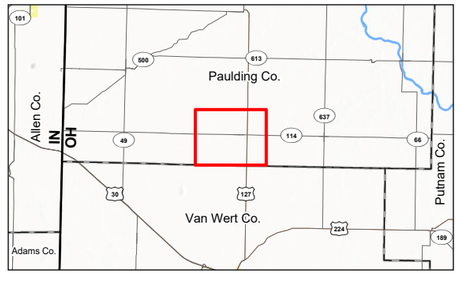
Project Location
Paulding County, Ohio

Prepared by RA on 2024-07-29
TR by AJK on 2024-07-29
IR by DJG on 2024-07-29

N

0 1,000 2,000 Feet
(At original document size of 11x17)
1:24,000

Legend
- AEP Substation
- Project Area



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Black & Veatch Corporation, Esri, USGS, NADS
3. Background: USGS 7.5' Topographic Quadrangles - Latty, OH (1974)

Stantec

A.2 FIGURE 2 – WETLAND AND WATERBODY DELINEATION MAP

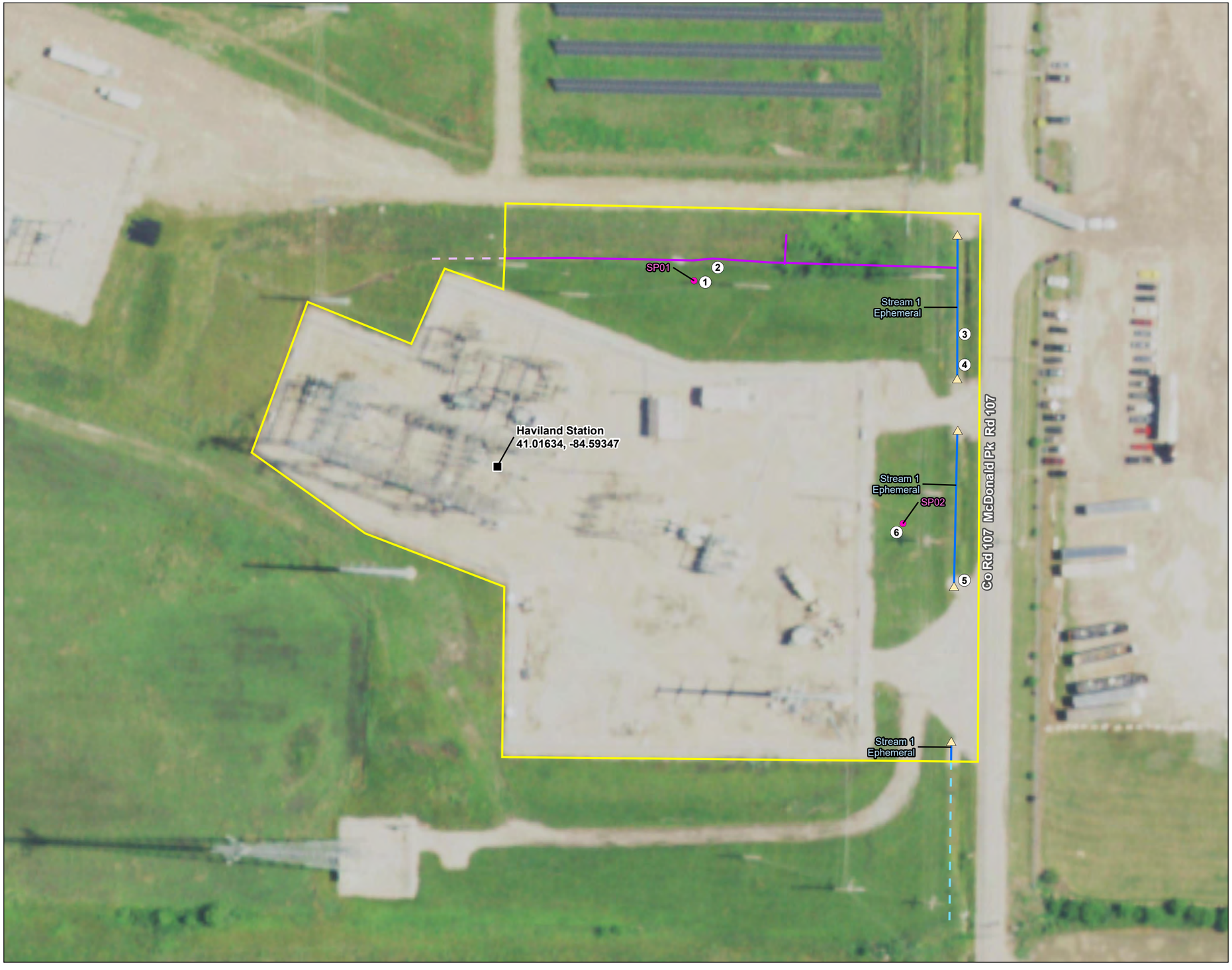


Figure No.
2

Title
Wetland and Waterbody Delineation Map

Client/Project 239000639
Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project

Project Location
Paulding County, Ohio

Prepared by RA on 2024-07-29
TR by AJK on 2024-07-29
IR by DJG on 2024-07-29

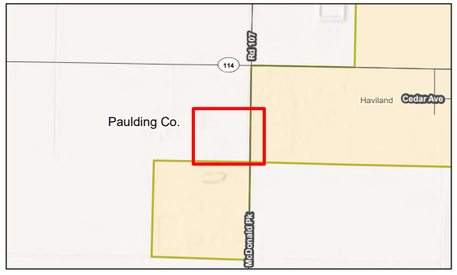
N

0 40 80 Feet
(At original document size of 11x17)
1:960

Legend
- AEP Substation
- Project Area
- Photo Location
- Existing Culvert
- Wetland Determination Sample Point Location
- Upland Drainage Feature
- Approximate Upland Drainage Feature
- Field Delineated Waterway
- Approximate Waterway
- National Wetlands Inventory Feature*

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

*No features within data frame



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Black & Veatch Corporation, Esri, USGS, NADS, USFWS, FEMA
3. Background: NAIP 2021

Stantec

A.3 FIGURE 3 – HABITAT ASSESSMENT MAP

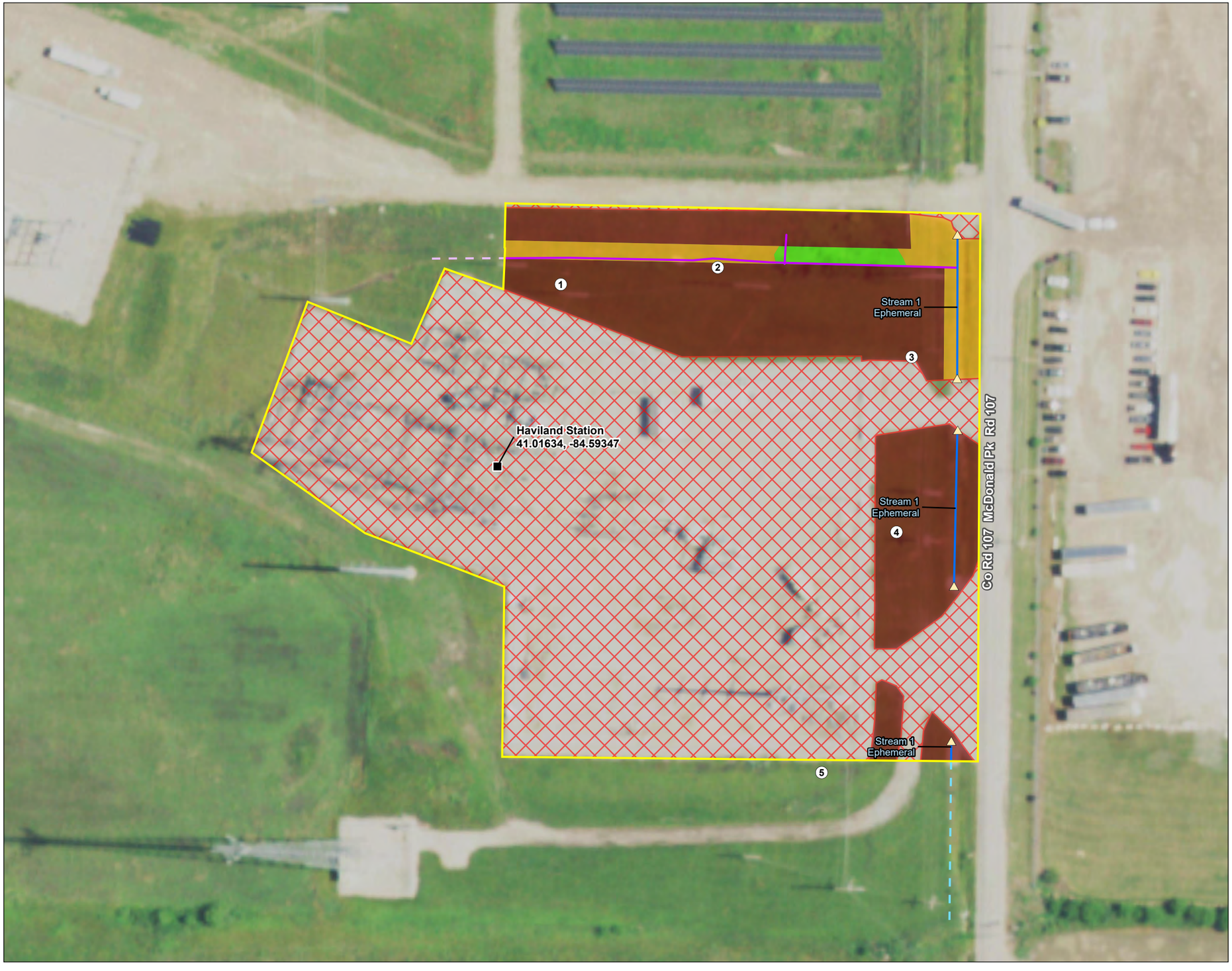


Figure No.
3

Title
Habitat Assessment Map

Client/Project 239000639
Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project

Project Location
Paulding County,
Ohio

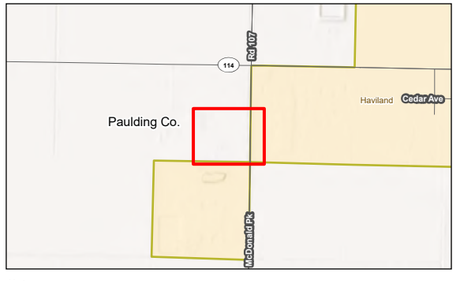
Prepared by RA on 2024-07-29
TR by AJK on 2024-07-29
IR by DJG on 2024-07-29

N

0 40 80 Feet
(At original document size of 11x17)
1:960

Legend
- AEP Substation
- Project Area
- Photo Location
- Existing Culvert
- Upland Drainage Feature
- Approximate Upland Drainage Feature
- Field Delineated Waterway
- Approximate Waterway

Habitat Area
- Early Successional Deciduous Forest
- New Fleld
- Maintained Lawn
- Industrial Land



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Black & Veatch Corporation, Esri, USGS, NADS
3. Background: NAIP 2021

Stantec

A.4 FIGURE 4 – BAT HIBERNACULA DESKTOP STUDY MAP

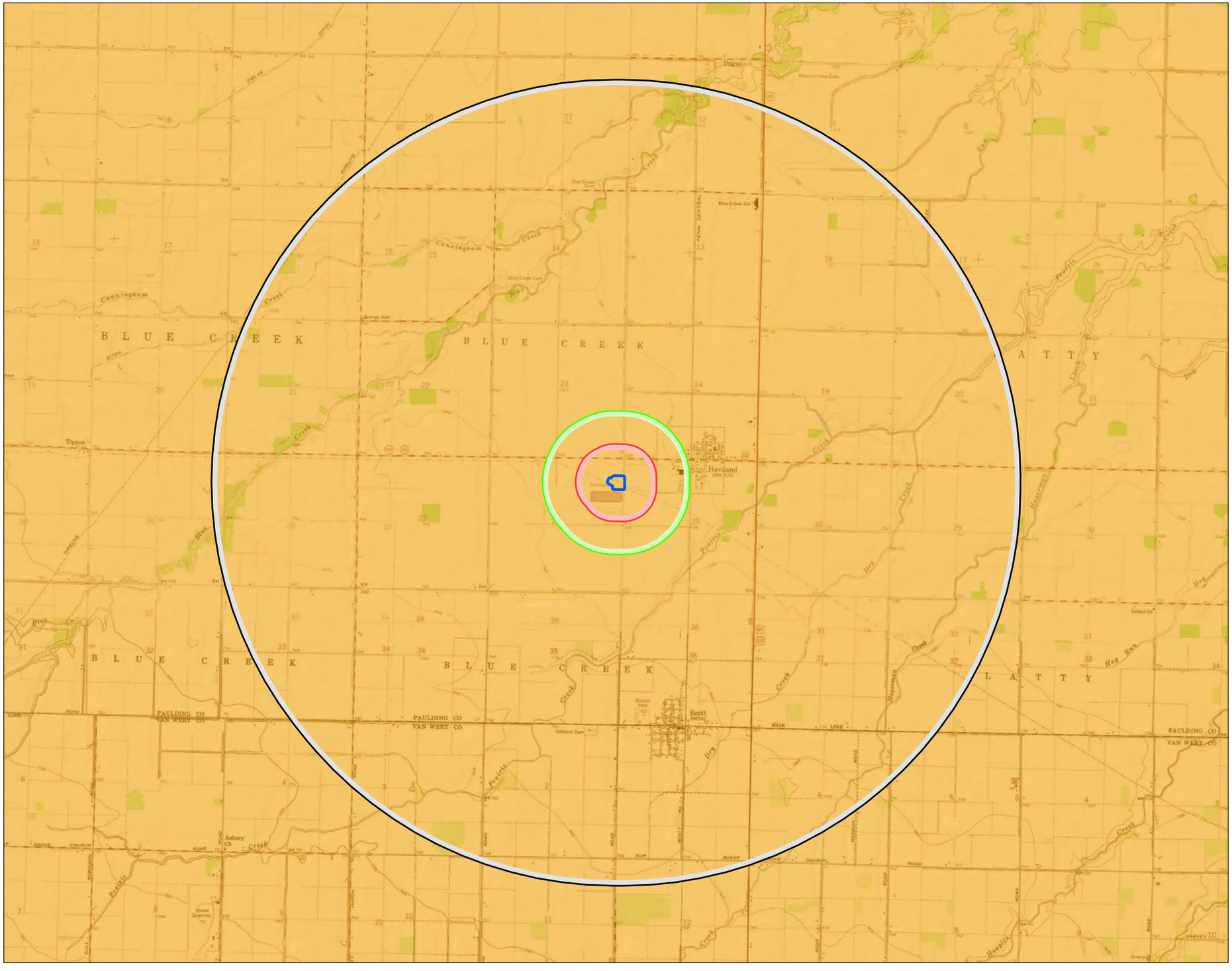


Figure No.
4

Title
Bat Hibernacula Desktop Study Map

Client/Project 239000639
Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project

Project Location
Paulding County,
Ohio

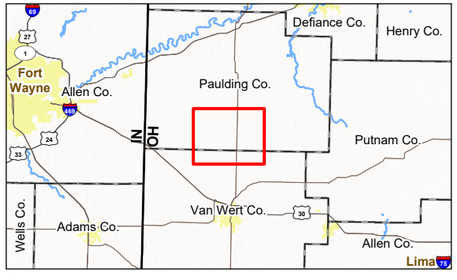
Prepared by RA on 2024-07-29
TR by AJK on 2024-07-29
IR by DJG on 2024-07-29

N

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

Legend
- Project Area
- Karst Feature*
- Area of Karst Geology
- Mine Opening*
- Underground Mine*

*No features within data frame



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Black & Veatch Corporation, Esri, USGS, NADS, OHDNR
3. Background: USGS 7.5' Topographic Quadrangles - Latty, OH (1974)

Stantec

Appendix B AGENCY CORRESPONDENCE

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

February 5, 2024

Daniel Godec
Stantec Consulting Services Inc.
11687 Lebanon Road
Cincinnati, Ohio 45241

Re: 24-0031_AEP Haviland 138 kV Gen-Tie Line

Project: The proposed project involves the construction of a single span of 138 kV transmission line just outside of the existing Haviland Station to provide a 138 kV interconnection to a nearby proposed Independent Power Producer (IPP) solar facility.

Location: The proposed project is located in Blue Creek Township, Paulding County, Ohio.

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

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

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

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

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

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

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

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

The project is within the range of the club shell (*Pleurobema clava*), a state endangered and federally endangered mussel, and the pondhorn *(Uniomerus tetralasmus*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

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

The project is within the range of the Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

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

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

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

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

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

Mike Pettegrew
Environmental Services Administrator

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

January 12, 2024

Project Code: 2024-0026839

Dear Daniel Godec:

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

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

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

Sincerely,

Scott Hicks

Scott Hicks
Acting Field Office Supervisor

Appendix C REPRESENTATIVE PHOTOGRAPHS

C.1 WETLAND AND WATERBODY PHOTOGRAPHS

Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project
Paulding County, Ohio

Photograph Location 1. View of upland (maintained lawn and new field habitat) at wetland determination sample point location SP01. Photograph taken facing north.

Photograph Location 1. View of upland (maintained lawn) at wetland determination sample point location SP01. Photograph taken facing south.

Photograph Location 2. Representative view of an upland drainage feature within the Project area. Photograph taken facing west.

Photograph Location 2. Representative view of an upland drainage feature within the Project area. Photograph taken facing east.

Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project
Paulding County, Ohio

Photograph Location 3. View of Stream 1. Photograph taken facing upstream/north.

Photograph Location 3. View of Stream 1. Photograph taken facing downstream/south.

Photograph Location 3. View of substrates of Stream 1.

Photograph Location 4. Representative view of an existing culvert within the Project area. Photograph taken facing south.

Photo Location 5. View of Stream 1. Photograph taken facing upstream/north.

Photo Location 5. View of Stream 1. Photograph taken facing downstream/south.

Photo Location 5. View of substrates of Stream 1.

Photo Location 6. View of upland (maintained lawn) at wetland determination sample point location SP02. Photograph taken facing north.

Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project
Paulding County, Ohio

Photo Location 6. View of upland (maintained lawn) at wetland determination sample point location SP02. Photograph taken facing south.

C.2 HABITAT PHOTOGRAPHS

Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project
Paulding County, Ohio

Photograph Location 1. Representative view of maintained lawn and new field habitat within the Project area. Photograph taken facing north.

Photograph Location 1. Representative view of maintained lawn and industrial land (existing Haviland Station) within the Project area. Photograph taken facing south.

Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project
Paulding County, Ohio

Photograph Location 2. Representative view of new field and early successional deciduous forest habitats within the Project area. Photograph taken facing east.

Photograph Location 3. Representative view of maintained lawn and early successional deciduous forest habitat within the Project area. Photograph taken facing north.

Photograph Location 3. Representative view of maintained lawn, new field habitat, and existing gravel area within the Project area. Photograph taken facing southeast.

Photo Location 4. Representative view of maintained lawn and industrial land (existing Haviland Station) within the Project area. Photograph taken facing west.

Black & Veatch Corporation
Haviland 138 kV Generation Tie Line Project
Paulding County, Ohio

Photo Location 5. Representative view of industrial land (existing Haviland Station) within the Project area. Photograph taken facing north.

Appendix D DATA FORMS

D.1 WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Haviland 138 kV Gen-Tie Line Project City/County: Paulding County Sampling Date: 01/11/2024

Applicant/Owner: Black and Veatch Corporation/ AEP Ohio Transmission Company, Inc. State: OH Sampling Point: SP01

Investigator(s): Malea Casey, Aaron Kwolek Section, Township, Range: S26, T001N, R002E

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

Subregion (LRR or MLRA): LRR L, MLRA 99 Lat: 41.016765 Long: -84.592919 Datum: WGS84

Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes NWI classification:

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

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

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

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: Upland

Remarks: (Explain alternative procedures here or in a separate report.)
Mowed/maintained lawn

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: SP01

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Schedonorus arundinaceus*	50	Yes	FACU
2. *Setaria faberi*	40	No	FACU
3. *Trifolium repens*	5	No	FACU
4. *Plantago lanceolata*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

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

SOIL

Sampling Point: SP01

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	85	7.5YR 5/8	15	C	M	Clay Loam	Graded fill material

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Haviland 138 kV Gen-Tie Line Project City/County: Paulding County Sampling Date: 06/25/2024

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

Investigator(s): Aaron Kwolek, Daniel Sedlacek Section, Township, Range: S26, T001N, R002E

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

Subregion (LRR or MLRA): LRR L, MLRA 99 Lat: 41.016245 Long: -84.592298 Datum: WGS84

Soil Map Unit Name: Latty silty clay, till substratum, 0 to 1 percent slopes NWI classification:

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

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

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

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

Hydrophytic Vegetation Present?	Yes ____ No X	**Is the Sampled Area**
Hydric Soil Present?	Yes X No ____	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____ No X	If yes, optional Wetland Site ID:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: SP02

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Schedonorus arundinaceus*	35	Yes	FACU
2. *Trifolium pratense*	15	Yes	FACU
3. *Taraxacum officinale*	15	Yes	FACU
4. *Poa pratensis*	15	Yes	FACU
5. *Plantago lanceolata*	8	No	FACU
6. *Daucus carota*	5	No	UPL
7. *Symphyotrichum pilosum*	5	No	FACU
8.			
9.			
10.			
11.			
12.			
	98 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	93	x 4 =	372
UPL species	5	x 5 =	25
Column Totals:	98 (A)		397 (B)
Prevalence Index = B/A =			4.05

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

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

SOIL

Sampling Point: SP02

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	100					Silty Clay	
3-10	10YR 5/1	90	10YR 5/8	10			Silty Clay	Mixed fill material

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

D.2 HHEI DATA FORMS

Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 52

SITE NAME/LOCATION Haviland 138kV Gen-Tie Line Project
SITE NUMBER Stream1 RIVER BASIN Maumee RIVER CODE — DRAINAGE AREA (mi²) <1mi²
LENGTH OF STREAM REACH (ft) 96ft LAT 41.016687 LONG -84.592151 RIVER MILE —
DATE 7/11/24 SCORER M. Casey COMMENTS

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

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☒ RECENT OR NO RECOVERY

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

TYPE		PERCENT	TYPE		PERCENT
☐	BLDR SLABS [16 pts]		☒	SILT [3 pt]	40
☐	BOULDER (>256 mm) [16 pts]		☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐	BEDROCK [16 pts]		☐	FINE DETRITUS [3 pts]	
☐	COBBLE (65-256 mm) [12 pts]	10	☒	CLAY or HARDPAN [0 pt]	30
☐	GRAVEL (2-64 mm) [9 pts]		☐	MUCK [0 pts]	
☐	SAND (<2 mm) [6 pts]	20	☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) 3

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

(B) 4

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI Metric Points — Substrate Max = 40: 7 — A + B

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

- ☐ > 30 centimeters [20 pts]
- ☐ > 22.5 - 30 cm [30 pts]
- ☒ > 10 - 22.5 cm [25 pts]
- ☐ 5 cm - 10 cm [15 pts]
- ☐ < 5 cm [5pts]
- ☐ NO WATER OR MOIST CHANNEL [0pts]

COMMENTS — MAXIMUM POOL DEPTH (centimeters): 21

Pool Depth Max = 30: 25

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

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

TDB: 6ftW, 1ftD.

COMMENTS DHWM: 5ftW, 0.7ftD AVERAGE BANKFULL WIDTH (meters): 1.8

Bankfull Width Max=30: 20

This information must also be completed

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

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

COMMENTS

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

- ☐ Stream Flowing
- ☐ Subsurface flow with isolated pools (interstitial)
- ☒ Moist Channel, isolated pools, no flow (intermittent)
- ☐ Dry channel, no water (ephemeral)

COMMENTS ephemeral

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

☒ None	☐ 1.0	☐ 2.0	☐ 3.0
☐ 0.5	☐ 1.5	☐ 2.5	☐ >3

STREAM GRADIENT ESTIMATE

☒ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

☒ WWH Name: Prairie Creek Distance from Evaluated Stream <1mi

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: Latty, OH NRCS Soil Map Page: — NRCS Soil Map Stream Order: —

County: Paulding Township/City: Haviland, OH

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 1/9/24 Quantity: ~1.09"

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 100

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

Field Measures: Temp (°C) 4.9 Dissolved Oxygen (mg/l) _____ pH (S.U.) 8.3 Conductivity (umhos/cm) _____

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

Additional comments/description of pollution impacts: roadside ditch

BIOLOGICAL OBSERVATIONS

(Record all observations below)

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

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

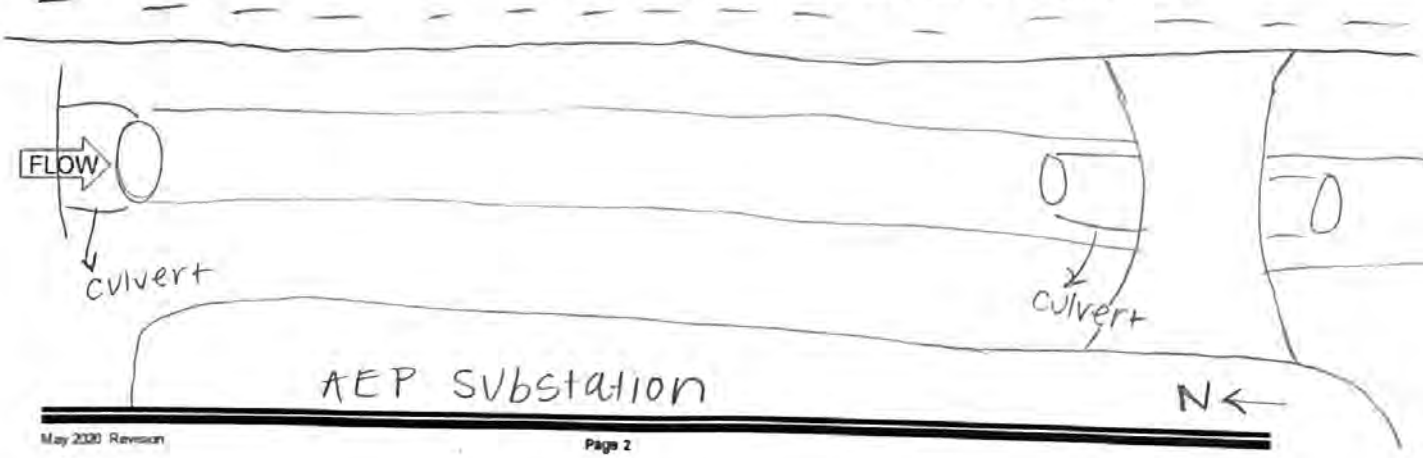
Salamanders Observed? (Y/N) N Species observed (if known): _____

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

Comments Regarding Biology: _____

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

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



AkDS501

Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 42

SITE NAME/LOCATION Haviland - VanWert 69 kV Line Rebuild Project

SITE NUMBER Stream1 RIVER BASIN Maumee RIVER CODE / DRAINAGE AREA (mi²) <1 sq. ft

LENGTH OF STREAM REACH (ft) 200 LAT 41.010576°N LONG -84.592147°W RIVER MILE /

DATE 6/25/24 SCORER AJK COMMENTS Road side, ditched

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

STREAM CHANNEL MODIFICATIONS: ☐ NONE - NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☒ RECENT OR NO RECOVERY

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

TYPE		PERCENT	TYPE		PERCENT
☐	BLDR SLABS [16 pts]		☒	SILT [3 pt]	45
☐	BOULDER (>256 mm) [16 pts]		☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐	BEDROCK [16 pts]		☐	FINE DETRITUS [3 pts]	
☐	COBBLE (65-256 mm) [12 pts]		☒	CLAY or HARDPAN [0 pt]	30
☐	GRAVEL (2-64 mm) [9 pts]		☐	MUCK [0 pts]	15
☐	SAND (<2 mm) [6 pts]	10	☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3

(B) TOTAL NUMBER OF SUBSTRATE TYPES: 4

HHEI Metric Points Substrate Max = 40: 7 — A + B

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

- ☐ > 30 centimeters [20 pts]
- ☐ > 22.5 - 30 cm [30 pts]
- ☐ > 10 - 22.5 cm [25 pts]
- ☒ 5 cm - 10 cm [15 pts]
- ☐ < 5 cm [5pts]
- ☐ NO WATER OR MOIST CHANNEL [0pts]

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 8

Pool Depth Max = 30: 15

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

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

ON: 5 40.75

COMMENTS TOB: 6 P: 1 AVERAGE BANKFULL WIDTH (meters): 2.1

Bankfull Width Max=30: 20

This information must also be completed

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

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

COMMENTS _____

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

- ☒ Stream Flowing
- ☐ Subsurface flow with isolated pools (interstitial)
- ☐ Moist Channel, isolated pools, no flow (intermittent)
- ☐ Dry channel, no water (ephemeral)

COMMENTS Eph

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

☒ None	☐ 1.0	☐ 2.0	☐ 3.0
☐ 0.5	☐ 1.5	☐ 2.5	☐ >3

STREAM GRADIENT ESTIMATE

☒ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

Stream 1

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

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

DOWNSTREAM DESIGNATED USE(S)

☐ ~~WWH~~ Name: MWH: Prairie Creek Distance from Evaluated Stream ~5000'

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: Latty NRCS Soil Map Page: / NRCS Soil Map Stream Order: /

County: Paulding Co. Township/City: /

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 6/25/24 Quantity: 0.17"

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): Y Canopy (% open): 10C

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

Field Measures: Temp (°C) 22.8 Dissolved Oxygen (mg/l) / pH (S.U.) 8.8 Conductivity (umhos/cm) _____

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

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

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

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

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

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

Comments Regarding Biology: _____

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

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