

Letter of Notification for Cole-Amlin 138 kV Transmission Line Relocation Project



An AEP Company

BOUNDLESS ENERGY™

PUCO Case No. 20-1019-EL-BLN

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

Submitted by:
AEP Ohio Transmission Company, Inc.

May 20, 2020

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc. Cole-Amlin 138 kV Transmission Line Relocation Project

4906-6-05

AEP Ohio Transmission Company, Inc. (“AEP Ohio Transco”) provides the following information in accordance with the requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-5(B) General Information

B(1) Project Description

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

AEP Ohio Transco is proposing the Cole-Amlin 138 kV Transmission Line Relocation Project (the “Project”) in Hilliard, Franklin County, Ohio. The Project consists of relocating approximately 0.25 miles of the existing Cole-Amlin 138 kV transmission line to accommodate the expansion of the existing Hayden Station facility. The Hayden Station expansion was filed with the Ohio Power Siting Board as the Hayden Transmission Station Expansion Project in Case No. 20-583-EL-BLN. The Project will be located within existing right-of-way (“ROW”) owned by the Company and on land owned by Ohio Power Company.

Figure 1 in Appendix A shows the location of the Project. Figure 2 in Appendix A shows the Project area for the transmission line relocation. Technical features of this Project are discussed in Section B(9).

The Project meets the requirements for a LON because it is within the types of projects defined by item (1)(b) 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:

(b) Line(s) greater than 0.2 miles in length but not greater than two miles in length.

The Project has been assigned PUCO Case No. 20-1019-EL-BLN

B(2) Statement of Need

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

This Project is necessary to accommodate the Hayden Transmission Station Expansion Project filed in Case No. 20-583-EL-BLN. The Hayden Transmission Station Expansion Project is necessary to enable the Company to add equipment and infrastructure that will bring the Hayden Station up to current resiliency, safety, operational performance, and reliability standards.

Because this Project results in no operational, modeling or topology change, the Project will not be included in the PJM Regional Transmission Expansion Plan. This Project is also not included in Form FE-T10 of AEP Ohio's or AEP Ohio Transco's 2019 Long – Term Forecast Reports because Hayden Station is an existing substation. Hayden Station was included as an existing substation in AEP Ohio's 2020 Form FE-T8, on page 73 of 119.

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 Hilliard, Franklin County, Ohio. Figures 1 and 2 in Appendix A show the location of the proposed Project in relation to existing AEP Ohio Transco facilities, including the existing Hayden Station facility and other AEP Ohio Transco transmission lines, including the existing Cole-Amlin 138 kV transmission line.

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.

All of the proposed transmission line work will occur within existing AEP Ohio Transco right-of-way ("ROW") and/or Ohio Power Company property. Due to the location of the existing Hayden Station facility, the short length of the line extension and the minimal constraints in the Project area, no other alternatives were considered for the Project. Any other alternative would add additional length to the Project without any additional benefit. Therefore, this Project represents the most suitable and least impactful alternative. Socioeconomic, land use, and ecological information is presented in Section B(10).

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.

AEP Ohio Transco informs affected property owners and tenants about its projects through several different mediums. Within seven days of filing this LON, AEP Ohio Transco will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements under O.A.C. Section 4906-6-08(A)(1-6). Further, AEP Ohio Transco will mail a letter, via first class mail, to affected landowners, tenants, contiguous owners, and any other landowner AEP Ohio Transco applied for an easement necessary for the construction, operation, or maintenance of the facility. The letter complies with all the requirements of O.A.C. Section 4906-6-08(B). AEP Ohio Transco also maintains a website (<http://aeptransmission.com/ohio/>) which provides the public access to an electronic copy of this LON and the public notice for this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this proposed Project. Lastly, AEP Ohio Transco also retains ROW land agents who discuss project timelines, construction and restoration activities with affected owners and tenants.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in third quarter of 2020, and the anticipated in-service date will be approximately June of 2021.

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 of existing and proposed facilities at 1:24,000, and Figure 2 in Appendix A provides an aerial image showing roads and highways, clearly marked with Project components. From Columbus, get on I-70 W/I-71 S (0.7 mi). Continue on I-70 W and then take I-270 N to Cemetery Road in Hilliard (11.2 mi). From there take exit 13B from I-270 N and follow Britton Parkway to Hayden Run Road in Brown Township (8.5 mi). The location of the Project will be on the right, on the north side of Hayden Run Road.

B(8) Property Agreements

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

The proposed Project will be located on property currently owned by Ohio Power Company (Parcel 120-000186) and/or within existing AEP Ohio Transco easements. No other property easements, options, or land use agreements are necessary to construct the Project or relocate the Cole-Amlin 138 kV transmission line.

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 Project will involve cutting into the existing Cole-Amlin 138 kV transmission line and relocating/constructing 0.24-miles of new single-circuit 138 kV transmission line.

Cole–Amlin 138 kV Line Relocation (New Line Being Installed):

Voltage: 138kV
Conductors: 2-bundle 954 kcmil 45/7 ACSR
Static Wire: OPGW 48-count from Str. 4 – 4a & from Str. 5a – 5; 7#8 Alumoweld from Str. 4a – Station & Station – Str. 5a
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Single circuit steel deadend structure. Two structures are needed.

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 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 capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$1,100,000 with a Class 3 estimate.

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.

As stated, the Project is located entirely within the Ohio Power Company's property and/or existing AEP Ohio Transco easements in Hilliard, Franklin County, Ohio. Field observations by AEP Ohio Transco's consultant indicated that the Project area is primarily comprised of agricultural field/fallow agricultural field (3.40 acres) habitat. No tree clearing is anticipated to be required for the Project and no streams or wetlands will be impacted by the Project (see Figure 3 in Appendix C). The Franklin County Auditor lists the land use of this area as "499- Other Commercial Structures". No environmental or cultural resources are expected to be impacted as a result of this Project.

No residences are located within 100 feet of the Project. There are currently 14 active residences located within 1,000 feet of the Project area along Hayden Run Road. No cemeteries, churches, schools, or other community facilities are located within 1,000 feet of the Project area.

No wildlife management areas or nature preserve lands are located within 1,000 feet of the Project. However, the Heritage Trail Park (located just west of the Project area) and Homestead Metro Park of the Columbus and Franklin County Metro Parks system were determined by the Ohio Department of Natural Resources ("ODNR") Ohio Natural Heritage Program ("ONHP") as occurring at or within one mile of the Project area (see Appendix B).

B(10)(b) Agricultural Land Information

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

The Project area is entirely within Ohio Power Company's property, with surrounding industrial/commercial and residential facilities. According to the Franklin County Auditor's website, the property is not located within a registered agricultural district and is listed as commercial use. Based on field surveys completed by AEP Ohio Transco's consultant, there are approximately 3.40 acres of agricultural field/fallow agricultural field habitat within the Project area. AEP Ohio Transco leases the land surrounding the Project area for farming. AEP Ohio Transco will coordinate with the farmer to construct the Project (see Figure 3 in Appendix C).

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.

Cultural resource surveys and reports for the Project were completed by AEP Ohio Transco's consultant in November 2017 and were reviewed by the Ohio State Historic Preservation Office/Ohio History Connection ("OHC"). The OHC issued a response letter dated December 12, 2018, stating that the proposed Project will have no effect on historic properties. The cultural

resources survey reports and OHC response letter will be provided to the OPSB. A copy of the OHC response letter is provided in Appendix B.

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

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

Best management practices (BMPs) will be implemented and maintained to minimize erosion and control sediment to protect surface water quality during storm events. A project-specific Storm Water Pollution Prevention Plan (SWPPP) will be prepared and a Notice of Intent (NOI) will be filed with the Ohio Environmental Protection Agency for authorization of construction storm water discharges under General Permit OHC000005.

There are no wetlands, streams, or open waters located within the Project area (see Ecological Resources Inventory Report provided in Appendix C). Therefore, the Project is not expected to require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or a Section 401 Water Quality Certification from the Ohio Environmental Protection Agency (“OEPA”).

The Project is not crossed by Federal Emergency Management Agency (“FEMA”) 100-year floodplains. 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.

The U.S. Fish and Wildlife Service (“USFWS”) Ohio Ecological Services Field Office list of federally endangered, threatened, and candidate species in Ohio by County (available at <https://www.fws.gov/midwest/ohio/EndangeredSpecies/pdf/SpeciesListByCountyApril2018.pdf>) was reviewed to determine threatened and endangered species known to occur or potentially occur within Franklin County. The USFWS lists the following threatened or endangered species as occurring or having the potential to occur in Franklin County: Indiana bat (*Myotis sodalis*; federally endangered), northern long-eared bat (*Myotis septentrionalis*; federally threatened), Scioto madtom (*Noturus trautmani*; federally endangered), clubshell (*Pleurobema clava*; federally endangered), northern riffleshell (*Epioblasma torulosa rangiana*; federally endangered), rabbitsfoot (*Quadrula cylindrica cylindrica*; federally threatened), rayed bean (*Villosa fabalis*;

federally endangered), snuffbox (*Epioblasma triquetra*; federally endangered), and running buffalo clover (*Trifolium stoloniferum*; federally endangered).

Additionally, several state-listed threatened and endangered species are listed by the ODNR (<http://wildlife.ohiodnr.gov/species-and-habitats/state-listed-species/state-listed-species-by-county>) as occurring, or potentially occurring, in Franklin County. State-listed species occurring in Franklin County are addressed in detail in the ecological resources inventory report included in Appendix C.

A coordination letter was submitted to the USFWS Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. The November 9, 2017 response letter from USFWS (Appendix B) stated that if no caves and mines (potential bat hibernacula) are present and seasonal tree cutting (clearing of trees ≥ 3 inches diameter at breast height between October 1 and March 31) is implemented, adverse effects to Indiana and northern long-eared bats can be avoided. Additionally, due to the project type, size, and location, the USFWS does not anticipate effects to any other federally endangered, threatened, proposed or candidate species. The USFWS recommended that the proposed project avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat. The use of best management practices was also recommended to minimize erosion.

An environmental review request letter was also submitted to the ODNR Office of Real Estate in October 2017. Correspondence received from ODNR Office of Real Estate (Appendix B) determined that the Project area occurs at or within a one-mile radius of the following areas associated with the Columbus & Franklin County Metro Parks: Heritage Trail Park and Homestead Metro Park. Heritage Trail Park is located just west of the Project area but not within it. Homestead Metro Park is not located within or adjacent to the Project area. Therefore, neither of these parks will be affected by the Project.

According to the ODNR Office of Real Estate, the Project is within the vicinity of the Indiana bat. If suitable Indiana bat habitat occurs within the Project area and trees must be cut, the ODNR recommends cutting between October 1 and March 31. If cutting must occur during the summer months, the ODNR recommends a mist net survey be conducted between June 1 and August 15 prior to any cutting. No winter hibernacula or potentially suitable bat roost trees for the Indiana bat or northern long-eared bat were observed in the Project area. Therefore, no impacts to the Indiana bat or northern long-eared bat are anticipated. AEP will avoid summer bat roosting habitat to the extent possible and will determine if any summer tree clearing is necessary in areas potentially containing suitable roost habitat and proceed accordingly.

Additionally, the response letter received from the ODNR Office of Real Estate stated that the Project is within the range of the following aquatic state-listed endangered and/or threatened species: Scioto madtom (*Noturus trautmani*; a state endangered and federally endangered fish), popeye shiner (*Notropis ariommus*; a state endangered fish), northern brook lamprey (*Ichthyomyzon fossor*; a state endangered fish), spotted darter (*Etheostoma maculatum*; a state endangered fish), shortnose gar (*Lepisosteus platostomus*; a state endangered fish), tongue-tied minnow (*Exoglossum laurae*; a state endangered fish), the paddlefish (*Polyodon spathula*; a state

threatened fish), Tippecanoe darter (*Etheostoma tippecanoe*; a state threatened fish), and 15 mussel species. 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 Project is within the range of the upland sandpiper (*Bartramia longicauda*; a state endangered bird), according to the ODNR. Upland sandpipers nest in large areas of grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). No suitable upland sandpiper nesting habitat was observed in the Project area and therefore no impacts to this species are anticipated. The ODNR stated that, if this type of habitat will not be impacted, this project is not likely to impact this species. The USFWS and ODNR coordination response letters is included in the Appendix B.

B(10)(f) Areas of Ecological Concern

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

The USFWS response letter stated that there are no federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project area (Appendix B). The ODNR Office of Real Estate response letter concluded that the Heritage Trail Park and Homestead Metro Park of the Columbus and Franklin County Metro Parks were reported as occurring within one mile of the Project area (Appendix B). As discussed above, Heritage Trail Park is located just west of the Project area and Homestead Metro Park is not located within or adjacent to the Project area. Therefore, neither area will be affected by the Project.

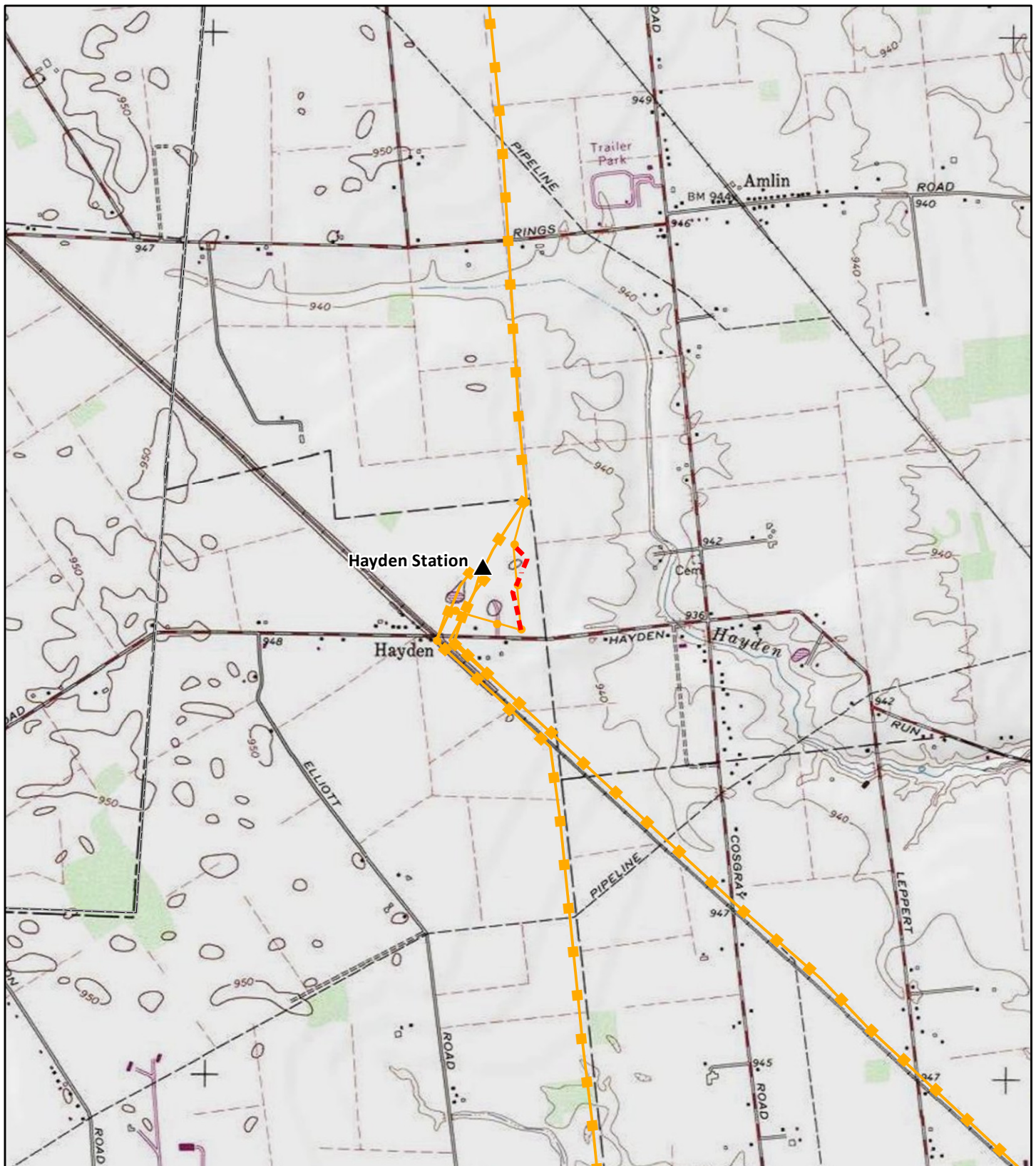
The FEMA Flood Insurance Rate Map with coverage of the Project area was consulted to identify any floodplains/flood hazard areas that have been mapped in the Project area (specifically, map number 39049C0141K). Based on this map, no mapped FEMA floodplains are located in the Project area.

An ecological resources inventory and wetland and waterbody delineation study was completed by AEP Ohio Transco's consultant within the Project area in October 2017 and December 2018. The ecological resources inventory report is included in Appendix C. No wetlands, streams, or open waters were observed in the Project area. Therefore, no wetlands or waterbodies are anticipated to be impacted by the Project.

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

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

Appendix A Project Maps



LEGEND:

- ▲ AEP Substation
- - - Proposed 138 kV Transmission Line
- Existing Transmission Line
- 115kV - 230 kV Voltage
- 345 kV or Higher Voltage

Data Sources:
AEP, Stantec,
USGS

Coordinate System
and Datum:
NAD 83 State Plane
Ohio South



May 20, 2020



FIGURE 1 PROJECT OVERVIEW MAP



Cole-Amlin 138 kV
Transmission Line
Relocation Project

0 1,000 2,000
Feet



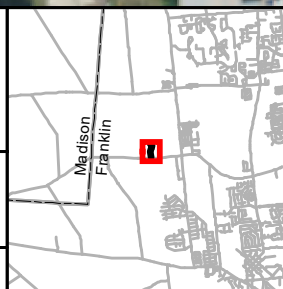
LEGEND:

- ▲ AEP Substation
- Proposed 138 kV Transmission Line
- Project Area
- Existing Transmission Line
- 115kV - 230 kV Voltage
- 345 kV or Higher Voltage

Data Sources or Notes:
AEP (2020), Stantec (2020),
NAIP (2019)

Coordinate System
and Datum:
NAD 83 State Plane
Ohio South

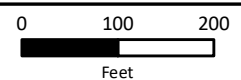
May 20, 2020



**FIGURE 2
AERIAL MAP**



Cole-Amlin 138 kV
Transmission Line
Relocation Project



Appendix B Agency Correspondence



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Office of Real Estate
Paul R. Baldrige, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6649
Fax: (614) 267-4764

January 4, 2018

Dan Godec
Stantec
1500 Lake Shore Drive Suite 100
Columbus OH 43204-3800

Re: 17-799; Request for Environmental Review, Hayden Station Expansion Project

Project: The proposed project involves the expansion of the existing Hayden 345 kV substation and potentially relocate associated transmission lines.

Location: The proposed project is in the City of Hilliard, Franklin County, Ohio.

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

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

Heritage Trail Park – Columbus & Franklin Co. Metro Parks
Homestead Metro Park – Columbus & Franklin Co. Metro Parks

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

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

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 range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the purple cat's paw (*Epioblasma o. obliquata*), a state endangered and federally endangered mussel, the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the northern riffleshell (*Epioblasma torulosa rangiana*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel species, the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered and federal candidate mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federal endangered mussel, the long solid (*Fusconaia maculata maculata*), a state endangered mussel, the Ohio pigtoe (*Pleurobema cordatum*), a state endangered mussel, the pocketbook (*Lampsilis ovata*), a state endangered mussel, the washboard (*Megaloniais nervosa*), a state endangered mussel, the elephant-ear (*Elliptio crassidens crassidens*), a state endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel, the pondhorn (*Unio merus tetralasmus*), a state threatened mussel, and the fawnsfoot (*Truncilla donaciformis*), 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 Scioto madtom (*Noturus trautmani*), a state endangered and federally endangered fish, the popeye shiner (*Notropis ariommus*), a state endangered fish, the northern brook lamprey (*Ichthyomyzon fossor*), a state endangered fish, the spotted darter (*Etheostoma maculatum*), a state endangered fish, the shortnose gar (*Lepisosteus platostomus*), a state endangered fish, the tonguetied minnow (*Exoglossum laurae*), a state threatened fish, the paddlefish (*Polyodon spathula*) a state threatened fish, and the Tippecanoe darter (*Etheostoma tippecanoe*), 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 these species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands,

seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

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

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

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

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler
ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693
John.Kessler@dnr.state.oh.us

Godec, Daniel

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>
Sent: Thursday, November 09, 2017 9:09 AM
To: Godec, Daniel
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: AEP - Hayden Station Expansion, Franklin County



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



TAILS# 03E15000-2018-TA-0160

Dear Mr. Godec,

We have received your recent correspondence requesting information about the subject proposal. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The following comments and recommendations will assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA).

The U.S. Fish and Wildlife Service (Service) recommends that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands). Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. All disturbed areas should be mulched and revegetated with native plant species. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

FEDERALLY LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

Should the proposed site contain trees ≥ 3 inches dbh, we recommend that trees be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we recommend that removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, summer surveys may be conducted to document the presence or probable absence of Indiana bats within the project area during the summer. If a summer survey documents probable absence of Indiana bats, the 4(d) rule for the northern long-eared bat could be applied. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have a valid federal permit. Please note that summer surveys may only be conducted between June 1 and August 15.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

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

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 ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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,



Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW



In reply refer to
2017-FRA-40425

December 12, 2017

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

RE: Hayden 345kV Substation Safety Fence Project, Brown Township, Franklin County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on November 13, 2017 regarding the proposed Hayden 345kV Substation Safety Fence Project, Brown Township, Franklin 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). 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 (16 U.S.C.470 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the 22.0 ha (54.4 ac) Hayden 345kV Substation Safety Fence Project in Brown Township, Franklin County, Ohio* by Weller & Associates, Inc. (2017).

A literature review, visual inspection, surface collection, shovel probe excavation, and shovel test unit excavation was completed as part of the investigations. No previously inventoried Ohio Archaeological Inventory (OAI) site is located within the project area. Two (2) Ohio Archaeological Inventory (OAI) sites were identified as part of this survey. OAI#33FR3097 is a prehistoric period isolated find identified during surface collection. OAI#33FR3098 is a historic period scatter identified during surface collection. According to historic atlas records and the artifacts identified, it appears the site dates from the late nineteenth century to the early twentieth century. None of the sites are recommended as eligible for listing in the National Register of Historic Places (NRHP). Based on the information provided, we agree the archaeological sites are not eligible for listing in the NRHP and no further archaeological work is necessary.

Please complete your associated site inventory as soon as possible. Project associated inventory should be completed and submitted concurrent with submission of your survey documentation for our comments. Following IForm submission procedure, please send a notification to the survey manager (archsurvey@ohiohistory.org, or directly at beberhard@ohiohistory.org) so that the manager is aware your inventory is prepared, complete, and ready for review.

The following comments pertain to the *History/Architecture Investigations for the 22.0 ha (54.4 ac) Hayden 345kV Substation Safety Fence Project in Brown Township, Franklin County, Ohio* by Weller & Associates, Inc. (2017).

The investigations consisted of a systematic survey of all properties fifty years of age or older that are situated within 1,000' of the proposed project site. A total of eight individual properties of fifty years of age or older were identified within the APE.

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Mr. Ryan J. Weller
Page 2
December 12, 2017

It is Weller's recommendation that none of these properties are eligible for inclusion in the NRHP due to a lack of associative significance, a loss of integrity, or a lack of character defining features. Our office agrees with Weller's recommendations regarding eligibility.

The results of the architectural investigation identified no historic properties located within the APE that exhibit potential significance for inclusion in the NRHP. Therefore, we agree that the project as proposed will have no effect on historic properties.

Based on the information provided, we agree the project will not affect historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted.

If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorricks@ohiohistory.org. Thank you for your cooperation.

Sincerely,



Krista Horrocks, Project Reviews Manager
Resource Protection and Review

cc: Ron Howard, AEP (rmhoward@aep.com)

RPR Serial No: 1071245, 1071246

OHIO HISTORY CONNECTION

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

Appendix C Ecological Resources Inventory Report



**Cole-Amlin 138 kV
Transmission Line Relocation
Project, Franklin County, Ohio**

Ecological Resources Inventory Report

Prepared for:

AEP Ohio Transmission Company, Inc.
8600 Smith's Mill Road
New Albany, Ohio 43054

Prepared by:

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

May 14, 2020

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ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

Introduction
May 14, 2020

1.0 Introduction

AEP Ohio Transmission Company, Inc. (AEP) is proposing to complete the Cole-Amlin 138 kV Transmission Line Relocation Project (the Project), located in Hilliard, Franklin County, Ohio. The Project consists of relocating a portion of the existing Cole-Amlin 138 kV transmission line associated with the expansion of the existing Hayden Station facility within AEP-owned property. The transmission line relocation is approximately 0.26-mile in length. The Project area was surveyed for wetlands, waterbodies, open water features, upland drainage features, and potential threatened, endangered, and rare species habitat by Stantec Consulting Services Inc. (Stantec) biologists on October 19, 2017 and December 12, 2018. Additionally, the approximate locations of features located up to 50 feet outside of the Project area limits were recorded during the field surveys, where landowner access was permitted. However, no data forms were completed for features that did not extend into the Project area. These features are shown on the Figure 2 map in Appendix A as “approximate” wetlands, streams (waterways), open waters, and upland drainage features.

Methods
May 14, 2020

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) maps, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil surveys, and aerial imagery mapping. Stantec completed a wetland delineation study in accordance with the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and 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 within the Project area was based on completion of the Ohio Environmental Protection Agency's (OEPA) Headwater Habitat Evaluation Index (HHEI; OEPA 2012) and/or Qualitative Habitat Evaluation Index (QHEI; OEPA 2006). The centerline 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 within the Project area, and assessed the potential for these habitats to be used by these species.

Results
May 14, 2020

3.0 Results

3.1 TERRESTRIAL HABITAT

Stantec completed field surveys within the Project area on October 19, 2017 and December 12, 2018, for wetlands, waterbodies, and threatened, endangered, or rare species habitats. Figure 2 (Appendix A) shows the locations of wetlands, waterbodies, and upland drainage features identified within and adjacent to the Project area. Figure 3 (Appendix A) shows the locations of habitats and land uses identified within the Project area, including the locations of any identified rare, threatened, or endangered species habitats observed within the Project area. Stantec biologists documented agricultural field/fallow agricultural field habitat as the only vegetation community found within the Project area. During the October 19, 2017 site visit, the Project area was actively being utilized as soybean field. During the December 12, 2018 site visit, the Project area consisted of a fallow agricultural field. Representative photographs of the vegetation communities/habitats identified within the Project area are included in Appendix C of this report (photo locations are shown on Figures 2 and 3, Appendix A). Table 1 below provides further detail on the vegetation community documented within the Project area.

Table 1. Vegetation Communities and Land Cover Found within the Cole-Amlin 138 kV Transmission Line Relocation Project Area, Franklin County, Ohio

Vegetation Communities and Land Cover Types within Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
Agricultural Field/Fallow Agricultural Field	Extreme Disturbance/Ruderal Community (dominated by planted row crop species and/or opportunistic invaders and/or native highly tolerant taxa). Dominant plant species included soybean (<i>Glycine max</i>) during the October 2017 site visit and redroot amaranth (<i>Amaranthus retroflexus</i>), yellow foxtail (<i>Setaria glauca</i>), eastern daisy fleabane (<i>Erigeron annuus</i>), and annual ragweed (<i>Ambrosia artemisiifolia</i>) during the December 2018 site visit.	No	3.39
Total			3.39

3.2 WETLANDS

No wetlands were observed within the Project area during the field surveys conducted on October 19, 2017 and December 12, 2018.

Results
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3.3 STREAMS

No streams were observed within the Project area during the field surveys conducted on October 19, 2017 and December 12, 2018.

3.4 OPEN WATER FEATURES

No open water features (ponds or lakes) were observed within the Project area during the field surveys conducted on October 19, 2017 or December 12, 2018.

Results
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3.5 RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Table 2. Summary of Potential Ohio State-Listed Species within the Cole-Amlin 138 kV Transmission Line Relocation Project Area, Franklin County, Ohio

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Insects								
Companionable Finger-net Caddisfly	<i>Chimarra socia</i>	E	Yes	No	Unspecified aquatic habitats	No	No suitable habitat is present within the Project area and no work in aquatic habitats is proposed. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Birds								
Upland Sandpiper	<i>Bartramia longicauda</i>	E	Yes	No	Upland sandpipers breed in grasslands, pastures, and unkempt agricultural land with a mosaic of old fields and crop lands, and sometimes the grassy expanses of airports (ODNR 2020b). Large areas of grassland/lightly-moderately grazed pasture habitats (≥ ≈ 20 acres) are required to be suitable as upland sandpiper nesting habitat (McCormac and Kennedy 2004; NatureServe 2020; USFWS 2001).	No	No suitable nesting habitat (large grasslands/lightly-moderately grazed pasture habitats ≥ ≈ 20 acres in size; McCormac and Kennedy 2004) is present within the Project area. Therefore, no impacts are anticipated.	The project is within the range of the upland sandpiper. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.
American Bittern	<i>Botaurus lentiginosus</i>	E	Yes	No	Nesting bitterns are very secretive and prefer large undisturbed wetlands that have scattered small pools amongst the dense vegetation. They occasionally occupy bogs, large wet meadows, and dense, shrubby swamps (ODNR 2020b).	No	No suitable habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Cattle Egret	<i>Bubulcus ibis</i>	E	Yes	No	Cattle egrets are not strictly wetland birds; they often forage in dry pastures and fields (ODNR 2020b). Cattle egrets are also found in wet pastureland and marshes, fresh water and brackish situations, dry fields, agricultural areas (especially irrigated ones), and garbage dumps. Nests in trees on islands in lakes; along watercourses; in swamps; on mangrove cays; or near marshes. Usually nests with other herons or in single species colonies. (NatureServe 2020).	Yes	Potentially suitable foraging habitat is present within the Project area (fallow agricultural field). However, no suitable nesting habitat was found within the Project area. Due to the project size, location, and because no wetlands, marshes, ponds or other aquatic habitats were found within the Project area and no suitable nesting habitat is present, this Project is not likely to impact this species.	No comments were received from the ODNR regarding this species.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

Results
May 14, 2020

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Lark Sparrow	<i>Chondestes grammacus</i>	E	Yes	No	This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges (ODNR 2020b).	Yes	Potentially suitable nesting habitat is present within the Project area in bare soil areas within the fallow agricultural field. However, due to the seasonal farming disturbance within the Project area, it is unlikely this species uses this area for nesting purposes. Therefore, the Project may affect but is not likely to affect this species.	No comments were received from the ODNR regarding this species.
Northern Harrier	<i>Circus hudsonius</i>	E	Yes	No	This is a common migrant and winter species in Ohio; nesters are much rarer, although they occasionally breed in large marshes and grasslands (ODNR 2020b).	No	No suitable breeding/nesting habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Sandhill Crane	<i>Grus canadensis</i>	T	Yes	No	Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds they require a rather large tract of wet meadow, shallow marsh, or bog for nesting (ODNR 2020b).	No	No suitable breeding/nesting habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Least Bittern	<i>Ixobrychus exilis</i>	T	Yes	No	Of the regularly breeding Ohio marsh birds, this is one of the most secretive. They hide in dense emergent marshes, particularly where there are thick cattail stands (ODNR 2020b).	No	No suitable breeding/nesting habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	T	Yes	No	These largely nocturnal herons are likely more common than suspected but tend to hide in thick vegetation during the day. These herons are often found roosting in thick vegetation along streams, lakes, and wetlands (ODNR 2020b).	No	No suitable breeding/nesting habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Barn Owl	<i>Tyto albo</i>	T	Yes	No	Barn owls depend on open grassland over which to hunt. However, because of the way much of Ohio is farmed today, there is little of this kind of habitat around. When there are few grassy meadows, there are few meadow voles. And when there are few meadow voles, there are few barn owls. When barn owls are not haunting an old building, barn, silo or chimney, they may roost and nest in a hollow tree. They will also use nesting boxes placed in barns just for them to use (ODNR 2020b).	No	No suitable breeding/nesting habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Fish								
Spotted Darter	<i>Etheostoma maculatum</i>	E	Yes	No	This fish is found in medium sized rivers and streams. They are typically found in areas of swift current at the top or bottom end of a riffle where there are many very large boulders or flab slabs or rock. They spend most of their time hiding under the upstream edge of these large rocks (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

Results
May 14, 2020

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Iowa Darter	<i>Etheostoma exile</i>	E	Yes	No	Iowa darters are found in natural lakes and very sluggish streams or marshes with dense to moderate aquatic vegetation and clear waters often over a sandy substrate. In Ohio they are primarily found in glacially formed natural lakes, often referred to as pothole or kettle lakes (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Tonguetied Minnow	<i>Exoglossum laurae</i>	E	Yes	No	Habitat includes rocky pools and runs of cool to warm, usually clear, creeks and small to medium rivers of moderate gradient, generally with relatively unsilted bottoms of gravel, rubble, and boulder, often at deeper edges of pools near vegetation or other cover(Lee et al. 1980, Page and Burr 2011); Spawning occurs in mounded pebble nests made by males in slow to moderate current; directly over pebbles on upstream slope of pebble nest (Maurakis et al. 1991; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Goldeye	<i>Hiodon alosoides</i>	E	Yes	No	Goldeye are found in large rivers and are rather tolerant of (and actually seem to have a preference for) turbid waters from clay silts. They do not, however, tolerate industrial chemical pollutants. They are often found in areas with swift currents, often below dams. In Ohio the goldeye is found in the Ohio River and its larger tributaries, particularly the Scioto River. Likely because of its preference for somewhat turbid waters it used to be much more abundant than the closely related mooneye. Today the goldeye is very rare in Ohio waters of the Ohio River and is far out-numbered by the clear water preferring mooneye (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Shortnose Gar	<i>Lepisosteus platostomus</i>	E	Yes	No	Shortnose gar are found in large rivers and associated overflow ponds and backwaters. They are more tolerant of turbid (murky) waters than most gar species but young are rather dependent on stagnant backwaters making them sensitive to destruction of these habitats. In Ohio this is a rather rare species and is only found in the Ohio River and some of its larger tributaries, particularly the Scioto River (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Popeye Shiner	<i>Notropis ariommus</i>	E	Yes	No	This fish is found in extremely clear waters in moderate sized streams. These streams usually have slow to moderate flow and many long slow pools (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Scioto Madtom	<i>Noturus trautmani</i>	E	Yes	No	Only 18 individuals of the Scioto madtom have ever been found. Of those, 14 were found in the fall of 1957 and none have been seen since. No other fish has been searched for more persistently by researchers in Ohio than this species. This fish has never been found outside of Ohio and all 18 individuals were found in a small area of Big Darby Creek. They were found in the tail end of riffles over a sand and gravel substrate. Since all of the individuals were found in the fall it has been speculated that they may spend the remainder of the year further upstream (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

Results
May 14, 2020

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	E	Yes	No	Adult northern brook lampreys are found in clear brooks with fast flowing water and either sand or gravel bottoms. Juveniles or ammocoetes are found in slow moving water buried in soft substrate of medium to large streams. Water sources must be free flowing (free of dams for both life phases (ODNR 2020b)).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Tippecanoe Darter	<i>Etheostoma tippecanoe</i>	T	Yes	No	These fish prefer medium to large streams in the Ohio River drainage system and are found in riffles of moderate current with substrate of gravel or cobble sized rocks (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Lake Chubsucker	<i>Erimyzon sucetta</i>	T	Yes	No	Lake chubsuckers are found in natural lakes and very sluggish streams or marshes with dense aquatic vegetation and clear waters. In Ohio they are primarily found in glacially formed natural lakes often referred to as pothole or kettle lakes. Historically they were found in Nettle Lake of extreme NW Ohio, a group of small pothole lakes between Bellefontaine and Urbana Ohio, and in many small pothole lakes in NE Ohio. Additionally, they were found in three man-made lakes where one or several of these small natural lakes were flooded to form a larger reservoir. These included Buckeye Lake, Indian Lake, and the Portage Lakes. Today they are still present in those natural lakes that still have very clear water and an abundance of aquatic vegetation primarily in the group of lakes between Bellefontaine and Urbana. Additionally, three slow moving stream systems that have interconnected wetland complexes, these include Killbuck Marsh, the upper Cuyahoga River, and the Black Fork of Symmes Creek including Jackson Lake which is part of this system. They are also still present in parts of the Portage Lakes (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Paddlefish	<i>Polyodon spathula</i>	T	Yes	No	Paddlefish are found in the Ohio River and up to the first dam on its larger tributaries. They prefer the sluggish pools and backwater areas of these rivers and streams. Historically they were much more common and could be found as far up the Ohio River as Pennsylvania. It is also probable that there was a small population in Lake Erie at one time. Today paddlefish are most common in the Ohio River from Portsmouth downstream to the Indiana state line (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	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.
Mussels								
Butterfly	<i>Ellipsaria lineolata</i>	E	Yes	No	This species reaches its greatest abundance in large rivers in stretches with pronounced current and a substrate of coarse sand and gravel. It appears to have been successful in adapting to impoundment conditions in the Cumberland and Tennessee Rivers where it is locally common and can be found at depths of up to 20 feet (Parmalee and Bogan, 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

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Results
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Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Elephant-Ear	<i>Elliptio crassidens crassidens</i>	E	Yes	No	This species inhabits muddy sand, sand and rocky substrates in moderate currents (Heard 1979). It is also an inhabitant of channels. It is most common in large creeks to rivers with moderate to swift currents, primarily on sand and limestone or rock substrates (Brim Box and Williams 2000; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Purple Cat's Paw	<i>Epioblasma obliquata obliquata</i>	E	Yes	No	Inhabits large river systems in sand and gravel substrates in runs and riffles (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Snuffbox	<i>Epioblasma triquetra</i>	E	Yes	No	Occurs in medium-sized streams to large rivers, generally on mud, rocky, gravel, or sand substrates in flowing water. This species is often deeply buried in substrate and overlooked by collectors (NatureServe 2019). It is found in a wide range of particle sized substrates. However, swift shallow riffles with sand and gravel are where it is typically found (Parmalee and Bogan 1998; Watters et al. 2009).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Ebonyshell	<i>Reginaia (Fusconaia) ebena</i>	E	Yes	No	This species inhabits large rivers and prefers swift water and stable sandy or gravelly shoals (Cummings and Mayer, 1992). Parmalee and Bogan (1998) list is occurring in current at depths of 10 to 15 feet or more. Course sand and gravel substrates provide the most suitable habitat, although this species thrives in rivers composed of sand, silt, and mud (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Longsolid	<i>Fusconaia maculata maculata</i>	E	Yes	No	This species is found in medium to large rivers in gravel with a strong current (Watters 1995), often in sand and gravel (Cicerello and Schuster 2003; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Pink Mucket	<i>Lampsilis abrupta</i>	E	Yes	No	Characterized as a large river species (Dennis 1984) associated with fast-flowing waters, although in recent years it has been able to survive and reproduce in impoundments with river-lake conditions but never in standing pools of water (USFWS 1985). Found in waters with strong currents, rocky or boulder substrates, with depths up to about 1 m, but is also found in deeper waters with slower currents and sand and gravel substrates (Gordon and Layzer 1989; USFWS 1985; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Northern Riffleshell	<i>Epioblasma torulosa rangiana</i>	E	Yes	No	Preferred habitat appears to require swiftly moving water. The high oxygen concentrations in swift streams may be necessary for survival. It is a species of riffle areas of smaller streams, and as such has fared better than larger river species, which have been heavily impacted by dredging and impoundment. (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

Results
May 14, 2020

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Pocketbook	<i>Lampsilis ovata</i>	E	Yes	No	This species is very generalized in habitat preference, adapting well to both impoundment situations as well as free-flowing, shallow rivers. It may be found in big rivers (reservoirs) at depths of 15 to 20 feet and in small streams in less than two feet of water. Although usually found in moderate to strong current, it can survive in standing water. The most suitable substrate consists of a mixture of gravel and coarse sand mixed with some silt or mud (Parmalee and Bogan 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Washboard	<i>Megaloniaias nervosa</i>	E	Yes	No	This species is typically a large river species, living in the main channel and in some of the overbank areas of reservoirs, but in some instances, it may also become established in medium-sized and even small rivers. It is found in areas with a slow current with muddy to coarse gravel substrates, often in water up to 50 feet in depth (Parmalee and Bogan 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Clubshell	<i>Pleurobema clava</i>	E	Yes	No	The clubshell is found in small to medium rivers, but occasionally is also found in large rivers, especially those having large shoal areas. It is generally found in clean, coarse sand and gravel in runs, often just downstream of a riffle and cannot tolerate mud or slackwater conditions (USFWS 1994). Badra and Goforth (2001) found the clubshell in gravel/sand substrate, runs having laminar flow (0.06-0.25 m/sec) within small to medium sized streams (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Ohio Pigtoe	<i>Pleurobema cordatum</i>	E	Yes	No	This species primarily inhabits large rivers but may be found in medium-sized rivers. It is also tolerant of some reservoir environments. In lotic situations it is found in or immediately above riffles in heterogenous assemblages of gravel, cobble, and boulder. It also occurs in some habitats with greater depth and substrates of mud/sand/gravel but seems to require flowing water. In reservoirs, it tends to occur in the sublotic areas of dam tailwaters and may be in some overbank beds (Gordon and Layzer 1989; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	E	Yes	No	According to Gordon and Layzer (1989) the typical habitat for this species is small to medium rivers with moderate to swift currents, and in smaller streams it inhabits bars or gravel and cobble close to the fast current. Found in medium to large rivers in sand and gravel shoals (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Rayed Bean	<i>Villosa fabalis</i>	E	Yes	No	Habitat includes gravel or sandy substrate, especially in areas of thick roots of aquatic plants, increase substrate stability (NatureServe 2020; Parmalee and Bogan 1998). Rayed bean can be associated with shoal or riffle areas, and in shallow, wave-washed areas of glacial lakes. It is generally found in smaller, headwater creeks, but sometimes in larger rivers and open-water bodies. It can occur in shallow riffles or in lakes with water depths up to	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

Results
May 14, 2020

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
					four feet. It has been found in riffles, generally in vegetation, and deeply buried in sand and gravel bound together by roots (Parmalee and Bogan 1998).			
Black Sandshell	<i>Ligumia recta</i>	T	Yes	No	It is typically found in medium-sized to large rivers in locations with strong current and substrates of coarse sand and gravel with cobbles in water depths from several inches to six feet or more (Parmalee and Bogan 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Threehorn Wartyback	<i>Obliquaria reflexa</i>	T	Yes	No	This species is typical of the large rivers where there is moderately strong current and a stable substrate composed of gravel, sand, and mud. Although found at depths of up to 20 feet, it seems to do well at a depth of no more than four to six feet often in shallow, sand- and mud-bottom river embayments with little or no current. It also occurs in many reservoirs (Parmalee and Bogan, 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Fawnsfoot	<i>Truncilla donaciformis</i>	T	Yes	No	This species occurs in both large and medium-sized rivers at normal depths varying from less than three feet up to 15 to 18 feet in big rivers such as the Tennessee. A substrate of either sand or mud is suitable and although it is typically found in moderate current, it can adapt to a lake or embayment environment lacking current (Parmalee and Bogan 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Pondhorn	<i>Uniomereus tetralasmus</i>	T	Yes	No	This species typically inhabits the quiet or slow-moving, shallow waters of sloughs, borrow pits, ponds, ditches, and meandering streams. It is tolerant of poor water conditions and can be found well buried in a substrate of fine silt and/or mud. It has been known to survive for extended periods of time when a pond or slough has temporarily dried up by burying itself deep into the substrate (Cordeiro 1999; Parmalee and Bogan, 1998; NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Mammals								
Black Bear	<i>Ursus americanus</i>	E	Yes	No	Black bears can be found from coast to coast throughout North America in a wide variety of the more heavily wooded habitats, ranging from swamps and wetlands to dry upland hardwood and coniferous forests, from the Yukon and Northwest Territory in Canada to the northern portions of Mexico. Although they will utilize open areas, bears prefer wooded cover with a dense understory (ODNR 2020b).	No	No suitable habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
Indiana Bat	<i>Myotis sodalis</i>	E	Yes	No	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	No	No potential hibernacula, suitable roost trees, or foraging habitat was observed within the Project area. Therefore, no impacts to this species are anticipated. If any summer tree clearing is determined	If suitable habitat occurs within the project area, the ODNR recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the ODNR recommends cutting

Results
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Common Name	Scientific Name	State Listing ¹	Known to Occur Within Franklin County? ²	Known Within One Mile of Project Area? ³	Habitat Preference	Suitable Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
					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 2018b). 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).		necessary, AEP will proceed in accordance with agency requirements.	occur between October 1 and March 31. If suitable trees must be cut during summer months, the ODNR recommends a mist net survey be conducted between June 1 and August 15, prior to any cutting. If no tree removal is proposed, this project is not likely to impact this species.
Northern Long-eared Bat	<i>Myotis septentrionalis</i>		Yes	No	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 2016). 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	No potential hibernacula, suitable roost trees, or foraging habitat was observed within the Project area. Therefore, no impacts to this species are anticipated. If any summer tree clearing is determined necessary, AEP will proceed in accordance with agency requirements.	No comments were received from the ODNR regarding this species.
Reptiles								
Smooth Greensnake	<i>Opheodrys vernalis</i>	E	Yes	No	Smooth greensnakes have been found in a variety of places, including blackberry bushes, grapevines, shrubs, roadside ditches, open grassy meadows, and marshy grass. The relatively few specimens of this snake encountered in Ohio have been in the extreme southwest portion of the state, in the area of Butler, Hamilton, and Fayette counties. Since the Western smooth greensnake is primarily a prairie inhabitant of the West, those in Ohio are probably remnants of the western prairie habitats that once extended into the state. This snake is rare not only in Ohio, but also throughout its entire range, wherever prairie has given way to civilization (ODNR 2020b).	No	No suitable habitat is present within the Project area. Therefore, no impacts are anticipated.	No comments were received from the ODNR regarding this species.
¹ E=Endangered; T=Threatened ² According to Ohio Department of Natural Resources, State Listed Wildlife Species by County (ODNR 2020a). ³ According to Ohio Natural Heritage Program (Appendix B).								

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Table 3. Summary of Potential Federally Listed Species within the Cole-Amlin 138 kV Transmission Line Relocation Project Area, Franklin County, Ohio

Common Name	Scientific Name	Federal Listing ¹	Known to Occur in Franklin County? ²	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	USFWS Comments/ Recommendations
Mammals							
Indiana Bat	<i>Myotis sodalis</i>	E	Yes	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 2018b). 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	No potential hibernacula, suitable roost trees, or foraging habitat was observed within the Project area. Therefore, no impacts to this species are anticipated. If any summer tree clearing is determined necessary, AEP will proceed in accordance with agency requirements.	Should the project site contain trees ≥3 inches dbh, USFWS recommends trees be saved whenever possible. If any caves or abandoned mines may be disturbed, further coordination is requested. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, USFWS recommends that removal of trees ≥3 inches dbh only occur between October 1 and March 31 to avoid adverse effects to this species.
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	T	Yes	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 2016). 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	No potential hibernacula, suitable roost trees, or foraging habitat was observed within the Project area. Therefore, no impacts to this species are anticipated. If any summer tree clearing is determined necessary, AEP will proceed in accordance with agency requirements.	Should the project site contain trees ≥3 inches dbh, USFWS recommends trees be saved whenever possible. If any caves or abandoned mines may be disturbed, further coordination is requested. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, USFWS recommends that removal of trees ≥3 inches dbh only occur between October 1 and March 31 to avoid adverse effects to this species. Incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule.

Results
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Common Name	Scientific Name	Federal Listing ¹	Known to Occur in Franklin County? ²	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	USFWS Comments/ Recommendations
Fish							
Scioto Madtom	<i>Noturus trautmani</i>	E	Yes	Prefers tail end of riffles over sand and gravel substrates (ODNR 2020b).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.
Mussels							
Clubshell	<i>Pleurobema clava</i>	E	Yes	The clubshell is found in small to medium rivers, but occasionally is also found in large rivers, especially those having large shoal areas. It is generally found in clean, coarse sand and gravel in runs, often just downstream of a riffle and cannot tolerate mud or slackwater conditions (USFWS 1994). Badra and Goforth (2001) found the clubshell in gravel/sand substrate, runs having laminar flow (0.06-0.25 m/sec) within small to medium sized streams (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.
Northern Riffleshell	<i>Epioblasma torulosa rangiana</i>	E	Yes	Preferred habitat appears to require swiftly moving water. The high oxygen concentrations in swift streams may be necessary for survival. It is a species of riffle areas of smaller streams, and as such has fared better than larger river species, which have been heavily impacted by dredging and impoundment. (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.
Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T	Yes	According to Gordon and Layzer (1989), the typical habitat for this species is small to medium rivers with moderate to swift currents, and in smaller streams it inhabits bars or gravel and cobble close to the fast current. Found in medium to large rivers in sand and gravel shoals (NatureServe 2020).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.

Results
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Common Name	Scientific Name	Federal Listing ¹	Known to Occur in Franklin County? ²	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	USFWS Comments/ Recommendations
Rayed Bean	<i>Villosa fabalis</i>	E	Yes	Habitat includes gravel or sandy substrate, especially in areas of thick roots of aquatic plants, increase substrate stability (NatureServe 2020; Parmalee and Bogan 1998). Rayed bean can be associated with shoal or riffle areas, and in shallow, wave-washed areas of glacial lakes. It is generally found in smaller, headwater creeks, but sometimes in larger rivers and open-water bodies. It can occur in shallow riffles or in lakes with water depths up to four feet. It has been found in riffles, generally in vegetation, and deeply buried in sand and gravel bound together by roots (Parmalee and Bogan 1998).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.
Snuffbox	<i>Epioblasma triquetra</i>	E	Yes	Occurs in medium-sized streams to large rivers, generally on mud, rocky, gravel, or sand substrates in flowing water. This species is often deeply buried in substrate and overlooked by collectors (NatureServe 2020). It is found in a wide range of particle sized substrates. However, swift shallow riffles with sand and gravel are where it is typically found (Parmalee and Bogan 1998; Watters et al. 2009).	No	No suitable habitat is present within the Project area and no in water work is proposed. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.
Plants							
Running Buffalo Clover	<i>Trifolium stoloniferum</i>	E	Yes	Running buffalo clover habitat most commonly consists of mesic woodland in partial to filtered sunlight, where there is a pattern of moderate periodic disturbance for a prolonged period, such as mowing, trampling, or grazing. It has also been found in a variety of disturbed woodland habitats, floodplains, streambanks, grazed woodlots, cemeteries, lawns, old logging roads, and jeep trails (USFWS 2015).	No	No suitable habitat is present within the Project area. Therefore, no impacts are anticipated.	Due to the project type, size, and location, USFWS does not anticipate adverse effects to this or any other federally listed species.
¹ E=Endangered; T=Threatened ² According to USFWS (2018a).							

4.0 Conclusions and Recommendations

Stantec conducted a wetland and waterbodies delineation and a preliminary habitat assessment for threatened, endangered, and rare species within the Project area on October 19, 2017 and December 12, 2018. During the field surveys, no streams, wetlands, or open water features were identified within the Project area. The information provided by Stantec regarding wetland and stream boundaries is based on an analysis of the site 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 environmental review request letter was sent to ODNR Ohio Natural Heritage Program (ONHP) and the ODNR Office of Real Estate (Appendix B). The ONHP review determined that the Project area occurs at or within a one-mile radius of the following areas associated with the Columbus & Franklin Co. Metro Parks: Heritage Trail Park and Homestead Metro Park. Neither of these parks are located within the Project area. In addition to the ONHP review, a response received from the ODNR Office of Real Estate notes that the Project area is within the range of the following state-listed endangered aquatic species: purple cat's paw, clubshell, northern riffleshell, rayed bean, rabbitsfoot, snuffbox, long solid, Ohio pigtoe, pocketbook, washboard, elephant-ear, black sandshell, Scioto madtom, popeye shiner, northern brook lamprey, spotted darter, and shortnose gar. The response also notes that the Project area is within range of the following state-listed threatened aquatic species: threethorn wortyback, pondhorn, fawnsfoot, tonguetied minnow, paddlefish, and Tiptecanoe darter. Due to factors such as lack of habitat, project location, and no proposed in-water work in a perennial stream, the ODNR response concludes that the Project will not impact these species.

If suitable Indiana bat roost habitat occurs in the Project area and trees must be cut, the ODNR recommends cutting occur between October 1 and March 31. If suitable trees must be cut during summer months, ODNR recommends a net survey be conducted between June 1 and August 15, prior to any cutting. If no tree removal is proposed, the ODNR states that the project is not likely to impact this species. No suitable winter hibernacula or suitable roosting habitat was observed in the Project area. Therefore, no impacts to this species area anticipated. AEP will determine if any summer tree clearing is necessary in areas containing suitable roosting habitat and will proceed accordingly.

The ODNR response also states that the project is within range of the upland sandpiper, a state-listed endangered species. Upland sandpiper nesting habitat consists of large areas of grasslands, grazed and ungrazed pastures, hayfields, and grasslands established through the Conservation Reserve Program. If suitable nesting habitat will be impacted, construction should be avoided in those habitats during the species' nesting period of April 15 to July 31. If suitable nesting habitat will not be impacted, this project is not likely to impact this species. Due to the lack of suitable nesting habitat within the Project area, the Project is not likely to impact this species.

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Conclusions and Recommendations
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The ODNR recommended 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 area does not contain potentially suitable summer roost trees or hibernacula for the Indiana bat or northern long-eared bat. A technical assistance letter was submitted to the USFWS. The USFWS response letter (Appendix B) stated that should the project site contain trees ≥ 3 inches dbh, USFWS recommends trees be saved whenever possible. If any caves or abandoned mines may be disturbed, further coordination is requested. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, USFWS recommends that removal of trees ≥ 3 inches dbh only occur between October 1 and March 31 to avoid adverse effects to these species. Incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule. If implementation of seasonal tree clearing is not possible, the USFWS recommends summer presence/absence surveys be conducted for the Indiana bat between June 1 and August 15. If seasonal tree clearing is implemented, the USFWS does not anticipate adverse effects to these species (Appendix B).

The USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed or candidate species due to the project type, size, and location (Appendix B).

Additionally, the USFWS indicated that there are no federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project area (Appendix B). The USFWS recommended that impacts to wetlands and other water resources be avoided or minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

References
May 14, 2020

5.0 References

- Badra, P. J., and R. R. Goforth. 2001. Surveys for the clubshell (*Pleurobema clava*) and other rare clams in Michigan: Final Report – 2000. Michigan Natural Features Inventory Technical Report 2001-07.
- Brack, Virgil Jr., Dale W. Sparks, John O. Whitaker Jr., Brianne L. Walters, and Angela Boyer. 2010. Bats of Ohio. Indiana State University Center for North American Bat Research and Conservation.
- Brim Box, J. and J.D. Williams. 2000. Unionid mollusks of the Apalachicola Basin in Alabama, Florida, and Georgia. Alabama Museum of Natural History Bulletin, 21: 1-143
- Cicerello, R.R. and G.A. Schuster. 2003. A guide to the freshwater mussels of Kentucky. Kentucky State Nature Preserves Commission Scientific and Technical Series 7:1-62.
- Cordeiro, J. 1999. Distribution and habitat of freshwater mussels (Bivalvia: Unionoida: Unionidae) in Colorado. Natural History Inventory of Colorado, 19: 1-56.
- Cowardin, L.M., V. Carter V., F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31. Washington, D.C.
- Cummings, K.S. and C.A. Mayer. 1992. Field Guide to Freshwater Mussels of the Midwest. Illinois Natural History Survey Manual 5, Illinois. 194 pp.
- Dennis, S.D. 1984. Distributional analysis of the freshwater mussel fauna of the Tennessee River system, with special reference to possible limiting effects of siltation. Ph.D. Thesis. Virginia Polytechnic Institute and State University, Blacksburg, Virginia. 247 pp.
- Gordon, M.E. and J.B. Layzer. 1989. Mussels (Bivalvia: Unionoidea) of the Cumberland River review of life histories and ecological relationships. U.S. Fish and Wildlife Service Biological Report, 89(15): 1-99.
- Heard, W.H. 1979. Identification manual of the fresh water clams of Florida. State of Florida, Department of Environmental Regulation, Technical Series, 4(2): 1-82.
- Lee, D. S., C. R. Gilbert, C. H. Hocutt, R. E. Jenkins, D. E. McAllister, and J. R. Stauffer, Jr. 1980. Atlas of North American freshwater fishes. North Carolina State Museum of Natural History, Raleigh, North Carolina. i-x + 854 pp.
- Lotts, K. and T. Naberhaus. 2017. Butterflies and Moths of North America. Available at <http://www.butterfliesandmoths.org/species/Speyeria-idalia>. Accessed December 2018.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

References
May 14, 2020

- Mack, J.J. 2001. Ohio Rapid Assessment Method for Wetlands, Manual for Using Version 5.0. Ohio EPA Technical Bulletin Wetland/2001-1-1. Ohio Environmental Protection Agency, Division of Surface Water, 401 Wetland Ecology Unit, Columbus, Ohio.
- Maurakis, E.G., W.S. Woolcott, and M.H. Sabaj. 1991. Reproductive behavior of *Exoglossum* species. Bulletin of the Alabama Museum of Natural History 10:11-16.
- McCormac, J., and G. Kennedy. 2004. Birds of Ohio. Auburn, WA: Lone Pine Publishing.
- NatureServe. 2020. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available at: <http://explorer.natureserve.org>. Accessed April 2020.
- Ohio Department of Natural Resources (ODNR) Division of Wildlife. 2020a. State Listed Wildlife Species by County. Available at <http://wildlife.ohiodnr.gov/species-and-habitats/state-listed-species/state-listed-species-by-county>. Accessed April 2020.
- ODNR Division of Wildlife. 2020b. Species Guide Index. Available at <http://wildlife.ohiodnr.gov/species-and-habitats/species-guide-index/>. Accessed April 2020.
- Ohio Environmental Protection Agency (OEPA). 2006. Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI).
- OEPA. 2012. Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 3.0. OEPA Division of Surface Water, Columbus, Ohio. 117 pp.
- Page, L. M., and B. M. Burr. 2011. Peterson field guide to freshwater fishes of North America north of Mexico. Second edition. Houghton Mifflin Harcourt, Boston. xix + 663 pp.
- Parmalee, P. W. and A. E. Bogan. 1998. The Freshwater Mussels of Tennessee. University of Tennessee Press: Knoxville, Tennessee. 328 pp.
- U.S. Army Corps of Engineers (USACE), Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.
- USACE. 2002. Issuance of Nationwide Permits; Notice, 67 Fed. Reg. 10. January 15, 2002. Federal Register: The Daily Journal of the United States. Available at <https://www.gpo.gov/fdsys/pkg/FR-2002-01-15/pdf/02-539.pdf>.
- USACE. 2005. *Guidance on Ordinary High Water Mark Identification* (Regulatory Guidance Letter, No. 05-05). Available online at <http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl05-05.pdf>. Accessed October 2017.

ECOLOGICAL RESOURCES INVENTORY REPORT, COLE-AMLIN 138 KV TRANSMISSION LINE RELOCATION PROJECT

References
May 14, 2020

- USACE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), ed. J.S. Wakely R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS). 1994. Clubshell (*Pleurobema clava*) and Northern Riffleshell (*Epioblasma torulosa rangiana*) Recovery Plan. Prepared for the USFWS, Hadley, Massachusetts. 68 pp.
- USFWS. 1985. Recovery plan for the pink mucket pearly mussel; *Lampsilis orbiculata* (Hildreth, 1828). U.S. Fish and Wildlife Service, Region 4, Atlanta, Georgia. 47 pp.
- USFWS - Region 5. 2001. Upland Sandpiper Habitat Model. Available at http://www.fws.gov/r5gomp/gom/habitatstudy/metadata/upland_sandpiper_model.htm. Accessed October 2017.
- USFWS. 2007. Indiana bat (*Myotis sodalis*) draft recovery plan: First revision. U.S. Fish and Wildlife Service, Ft. Snelling, Minnesota. 258 pp.
- USFWS. 2015. Endangered Species. Running Buffalo Clover (*Trifolium stoloniferum*). Available at <http://www.fws.gov/midwest/endangered/plants/rbcl/index.html>. Accessed October 2017.
- USFWS. 2016. Environmental Conservation Online System (ECOS): Species Profile for Northern Long-eared Bat (*Myotis septentrionalis*). Available online at https://ecos.fws.gov/tess_public/profile/speciesProfile?sPCODE=A0JE. Accessed October 2017.
- USFWS. 2018a. Federally Listed Species by Ohio Counties. Available at <https://www.fws.gov/midwest/ohio/EndangeredSpecies/pdf/SpeciesListByCountyApril2018.pdf>. Accessed December 2018.
- USFWS. 2018b. 2018 Range-wide Indiana Bat Summer Survey Guidelines, April 2018. Available at <https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>. Accessed December 2018.
- Watters, G.T. 1995. A field guide to the freshwater mussels of Ohio. revised 3rd edition. Ohio Department of Natural Resources, Division of Wildlife, Columbus, Ohio. 122 pp
- Watters, G. T., M. A. Hoggarth, and D. H. Stansbery. 2009. The Freshwater Mussels of Ohio. The Ohio State University Press, Columbus, OH. 421 pp.

Appendix A **Figures**

A.1 **FIGURE 1 – PROJECT LOCATION MAP**

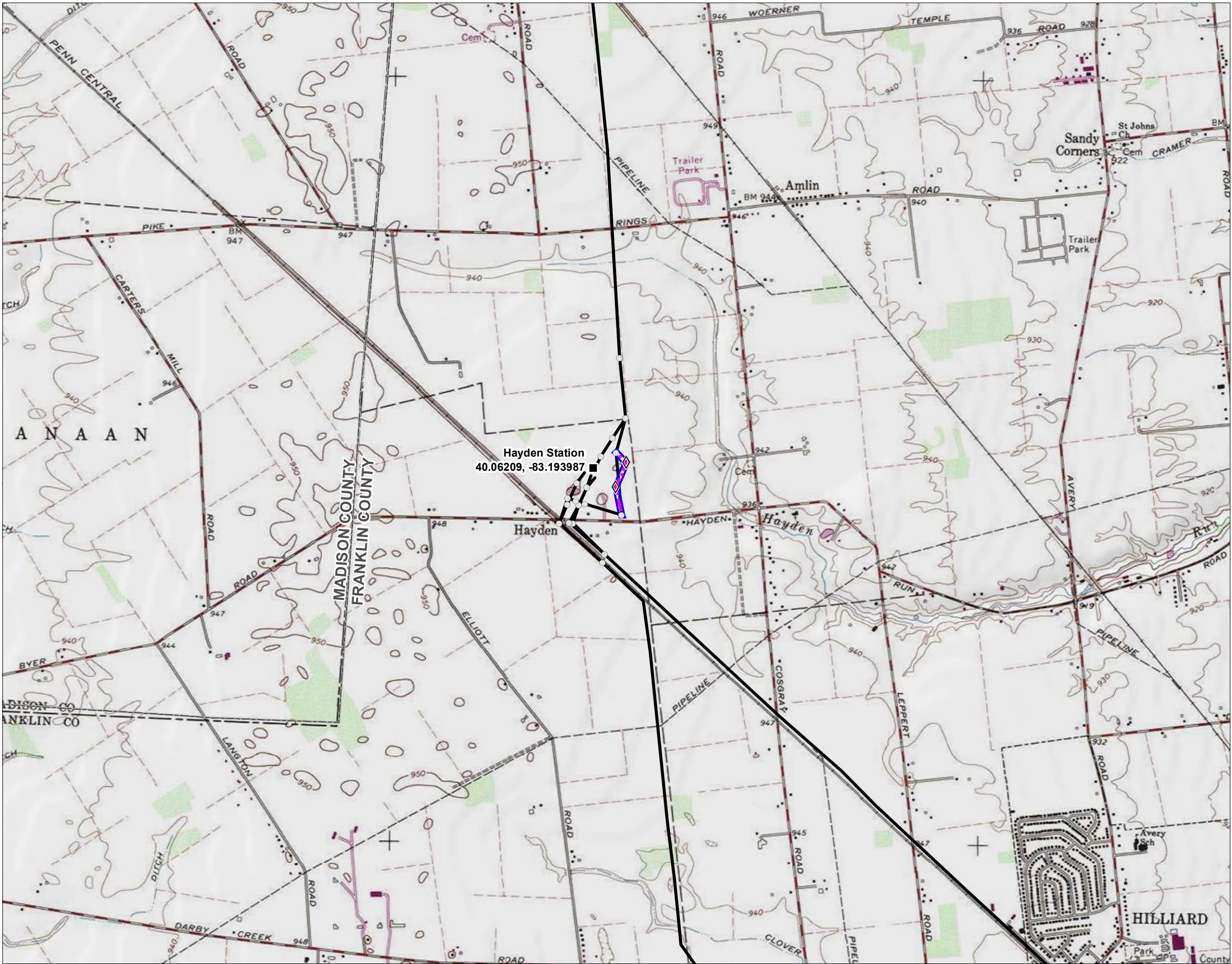
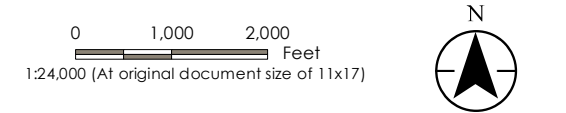


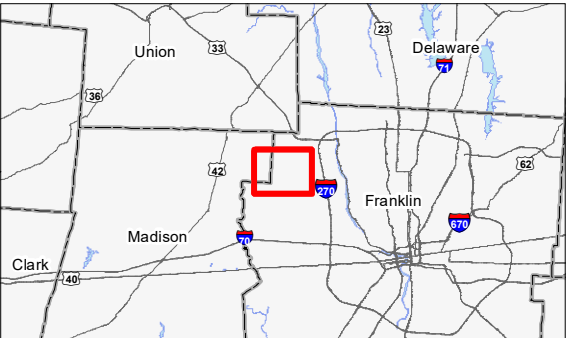
Figure No. 1
Title
Project Location Map

Client/Project
AEP Ohio Transmission Company, Inc.
Cole-Amlin 138 kV Transmission Line
Relocation Project

Project Location
Franklin County, Ohio
193705735
Prepared by JH on 2020-04-21
Technical Review by NTN on 2020-04-23
Independent Review by DJG on 2020-04-30



- Legend
- AEP Substation
 - Existing Structure
 - ◇ Proposed Structure
 - Existing Transmission Line
 - Proposed 138 kV Transmission Line Extension
 - Project Area



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources Include: Stantec, AEP, USGS, NADS
3. Background: USGS 7.5 Topographic Quadrangles - Hilliard, OH (1980)



A.2 FIGURE 2 – WETLAND AND WATERBODY DELINEATION MAP



Figure No.
2

Title
**Wetland and Waterbody
Delineation Map**

Client/Project
AEP Ohio Transmission Company, Inc.
Cole-Amlin 138 kV Transmission Line
Relocation Project

Project Location
Franklin County, Ohio

193705735

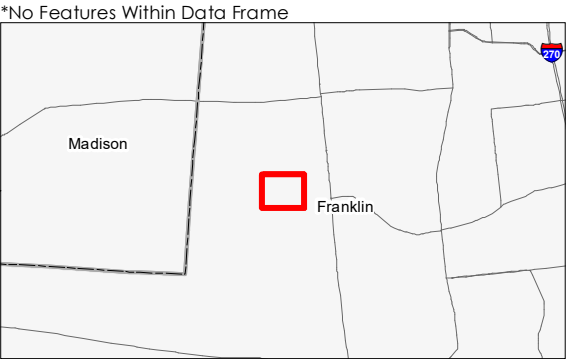
Prepared by J.L.H. on 2020-04-21
Technical Review by NTN on 2020-04-23
Independent Review by DJG on 2020-04-30

0 100 200 Feet
1:2,400 (At original document size of 11x17)

N

Legend

- Existing Structure
- Proposed Structure
- Existing Transmission Line
- Existing 138 kV Transmission Line to be Remove
- Proposed 138 kV Transmission Line
- Project Area
- Hayden Station
- Existing Culvert
- Photo Location
- Wetland Determination Sample Point
- Approximate Upland Drainage Feature
- FEMA Flood Hazard Area*
- 100-year Flood Zone
- 100-year Floodway



Notes

- Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
- Data Sources Include: Stantec, AEP, USGS, FEMA, NADS, OGRIP
- Orthophotography: 2019 NAIP

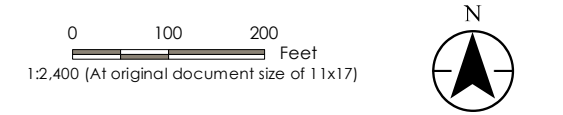


A.3 **FIGURE 3 – HABITAT ASSESSMENT MAP**

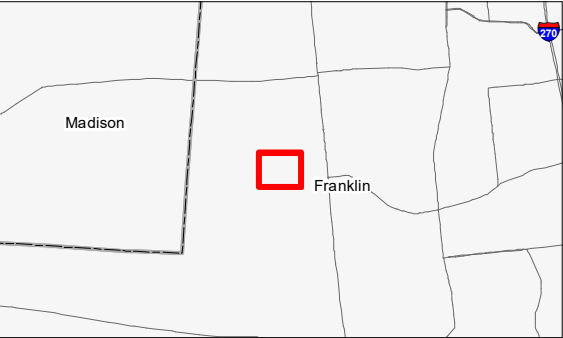


Figure No.
3
Title
Habitat Assessment Map

Client/Project
AEP Ohio Transmission Company, Inc.
Cole-Amlin 138 kV Transmission Line
Relocation Project
Project Location
Franklin County, Ohio
193705735
Prepared by J.L.H. on 2020-04-21
Technical Review by NTN on 2020-04-23
Independent Review by DJG on 2020-04-30



- Legend**
- Existing Structure
 - Proposed Structure
 - Existing Transmission Line
 - Existing 138 kV Transmission Line to be Removed
 - Proposed 138 kV Transmission Line
 - Project Area
 - Hayden Station
 - Photo Location
 - Approximate Upland Drainage Feature
 - Habitat Area
 - Agricultural Field/Fallow Agricultural Field



Notes

- Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
- Data Sources Include: Stantec, AEP, USGS, NADS, OGRIP
- Orthophotography: 2019 NAIP



Appendix B **Agency Correspondence**



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Office of Real Estate
Paul R. Baldrige, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6649
Fax: (614) 267-4764

January 4, 2018

Dan Godec
Stantec
1500 Lake Shore Drive Suite 100
Columbus OH 43204-3800

Re: 17-799; Request for Environmental Review, Hayden Station Expansion Project

Project: The proposed project involves the expansion of the existing Hayden 345 kV substation and potentially relocate associated transmission lines.

Location: The proposed project is in the City of Hilliard, Franklin County, Ohio.

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

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

Heritage Trail Park – Columbus & Franklin Co. Metro Parks
Homestead Metro Park – Columbus & Franklin Co. Metro Parks

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

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

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 range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the purple cat's paw (*Epioblasma o. obliquata*), a state endangered and federally endangered mussel, the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the northern riffleshell (*Epioblasma torulosa rangiana*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel species, the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered and federal candidate mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federal endangered mussel, the long solid (*Fusconaia maculata maculata*), a state endangered mussel, the Ohio pigtoe (*Pleurobema cordatum*), a state endangered mussel, the pocketbook (*Lampsilis ovata*), a state endangered mussel, the washboard (*Megaloniais nervosa*), a state endangered mussel, the elephant-ear (*Elliptio crassidens crassidens*), a state endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel, the pondhorn (*Unio merus tetralasmus*), a state threatened mussel, and the fawnsfoot (*Truncilla donaciformis*), 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 Scioto madtom (*Noturus trautmani*), a state endangered and federally endangered fish, the popeye shiner (*Notropis ariommus*), a state endangered fish, the northern brook lamprey (*Ichthyomyzon fossor*), a state endangered fish, the spotted darter (*Etheostoma maculatum*), a state endangered fish, the shortnose gar (*Lepisosteus platostomus*), a state endangered fish, the tonguetied minnow (*Exoglossum laurae*), a state threatened fish, the paddlefish (*Polyodon spathula*) a state threatened fish, and the Tippecanoe darter (*Etheostoma tippecanoe*), 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 these species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands,

seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

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

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

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

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler
ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693
John.Kessler@dnr.state.oh.us

Godec, Daniel

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>
Sent: Thursday, November 09, 2017 9:09 AM
To: Godec, Daniel
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: AEP - Hayden Station Expansion, Franklin County



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



TAILS# 03E15000-2018-TA-0160

Dear Mr. Godec,

We have received your recent correspondence requesting information about the subject proposal. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The following comments and recommendations will assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA).

The U.S. Fish and Wildlife Service (Service) recommends that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands). Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. All disturbed areas should be mulched and revegetated with native plant species. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

FEDERALLY LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

Should the proposed site contain trees ≥ 3 inches dbh, we recommend that trees be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we recommend that removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, summer surveys may be conducted to document the presence or probable absence of Indiana bats within the project area during the summer. If a summer survey documents probable absence of Indiana bats, the 4(d) rule for the northern long-eared bat could be applied. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have a valid federal permit. Please note that summer surveys may only be conducted between June 1 and August 15.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

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

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 ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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,



Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW

Appendix C Representative Photographs



Photo Location 1. Representative view of upland (agricultural field/fallow agricultural field habitat) at wetland determination sample point (SP 1). Photograph taken facing north.



Photo Location 1. Representative view of upland (agricultural field/fallow agricultural field habitat) at wetland determination sample point (SP 1). Photograph taken facing east.



Photo Location1. Representative view of upland (agricultural field/fallow agricultural field habitat) at wetland determination sample point (SP 1). Photograph taken facing south.



Photo Location 1. Representative view of upland (agricultural field/fallow agricultural field habitat) at wetland determination sample point (SP 1). Photograph taken facing southwest.



Photo Location 1. Representative view of agricultural field/fallow agricultural field habitat.
Photograph taken facing west.



Photo Location 2. Representative view of agricultural field/fallow agricultural field habitat.
Photograph taken facing north.



Photo Location 2. Representative view of agricultural field/fallow agricultural field habitat.
Photograph taken facing southeast.

Appendix D Data Forms

D.1 WETLAND DETERMINATION DATA FORMS

Project/Site: Cole-Amlin 138 kV Transmission Line Relocation Project		Stantec Project #: 193705735	Date: 12/12/18
Applicant: AEP Ohio Transmission Company, Inc.		County: Franklin	
Investigator #1: Aaron Kwolek	Investigator #2: Kate Bomar		State: Ohio
Soil Unit: Kokomo silty clay loam, 0 to 2 percent slopes	NW1/WW1 Classification: NA		Wetland ID: NA
Landform: Dip	Local Relief: Linear		Sample Point: SP1
Slope (%): <1%	Latitude: 40.05997	Longitude: -83.192036	Datum: WGS 1984
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)			Community ID: Upland
Are Vegetation ¹ , Soil ¹ , or Hydrology ¹ significantly disturbed? <input type="checkbox"/> Yes <input type="checkbox"/> No Are Vegetation ¹ , Soil ¹ , or Hydrology ¹ naturally problematic? <input type="checkbox"/> Yes <input type="checkbox"/> No			Section: -- Township: -- Range: -- Dir: --

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

Primary:

- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface

- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B14 - True Aquatic Plants
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ D9 - Gauge or Well Data
- ☐ Other (Explain in Remarks)

Secondary:

- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: -- (in.)
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: 6" (in.)
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: 6" (in.)

Wetland Hydrology Present? ☐ Yes ☐ No

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

N/A

Remarks:

SOILS

Map Unit Name: **Kokomo silty clay loam, 0 to 2 percent slopes**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix			Redox Features					Texture (e.g. clay, sand, loam)
			Color (Moist)		%	Color (Moist)		%	Type	Location	
0	16	--	10YR	3/1	100	--	--	--	--	--	silty clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A10 - 2 cm Muck
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S3 - 5 cm Mucky Peat or Peat

- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils¹

- ☐ A16 - Coast Prairie Redox
- ☐ S7 - Dark Surface
- ☐ F12 - Iron-Manganese Masses
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type: N/A	Depth: N/A	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **Cole-Amlin 138 kV Transmission Line Relocation Project**

Wetland ID: **NA**

Sample Point: **SP1**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	Species Name	% Cover	Dominant	Ind. Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Amaranthus retroflexus</i>	1	N	FACU
2.	<i>Schedonorus arundinaceus</i>	25	Y	FACU
3.	<i>Panicum virgatum</i>	5	N	FAC
4.	<i>Symphyotrichum ericoides</i>	2	N	FACU
5.	<i>Abutilon theophrasti</i>	2	N	FACU
6.	<i>Erigeron annuus</i>	15	Y	FACU
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
Total Cover =		50		

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
Total Cover =		0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	<u>0</u>	x 1 =	<u>0</u>
FACW spp.	<u>0</u>	x 2 =	<u>0</u>
FAC spp.	<u>5</u>	x 3 =	<u>15</u>
FACU spp.	<u>45</u>	x 4 =	<u>180</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>

Total 50 (A) 195 (B)

Prevalence Index = B/A = 3.900

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

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

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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

Additional Remarks:

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

5/20/2020 5:02:37 PM

in

Case No(s). 20-1019-EL-BLN

Summary: Notice Letter of notification electronically filed by Tanner Wolfram on behalf of AEP Ohio Transmission Company, Inc.