

Letter of Notification for the Corridor Station; 138kV Line Entrance Span Modifications Project



An **AEP** Company

BOUNDLESS ENERGY™

Case No. 20-1257-EL-BLN

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

Submitted by:
Ohio Power Company

July 15th, 2020

Letter of Notification

Ohio Power Company

Corridor Station; 138kV Line Entrance Span Modifications Project

4906-6-05

Ohio Power Company. (“Company”) 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.

Ohio Power Company proposes the Corridor Station; 138kV Line Entrance Span Modifications Project (“Project”), located in Westerville, Franklin County, Ohio. The purpose of this Project is to relocate six transmission structures (approximately 0.58 miles) on the Corridor Extension No. 1 transmission line, Corridor Extension No. 2 transmission line, and double circuit Corridor - Morse transmission line with taller structures to meet Nation Electric Safety Coded electrical clearances to the station fence upgrades approved as part of the Corridor Station Expansion Project, Case No. 19-0842-EL-BLN. Additionally, additional structure location modifications are required to accommodate a new storm water detention pond being installed south of the station. The existing transmission line consists of wood monopoles that will be replaced with steel monopoles. The Project will be constructed on existing AEP Ohio property. Appendix A shows the location of the Project.

The Project meets the requirements for a Letter of Notification (“LON”) because it is within the types of projects defined by 1(b) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:

(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. 20-1257-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 Corridor Station Expansion Project approved in Case No. 19-0842-EL-BLN. As part of this Project new structures will be added to the Corridor Extension No. 1, _____

Ohio Power Company
July 15th, 2020

Corridor Station; 138kV Line Entrance
Span Modifications
20-1257-EL-BLN

Corridor Extension No. 2, Corridor - Morse Circuit 1 and Corridor - Morse Circuit 2 transmission lines to meet electrical clearances to the station fence and to accommodate a new storm water detention pond.

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 Corridor Station is an existing substation. Corridor Station was included as an existing substation in AEP Ohio's 2020 Form FE-T8, on page 67 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.

This Project is located in Westerville, Franklin County, Ohio. Appendix A shows the location of the Project in relation to existing assets. Figures 1 and 2 in Appendix A show the location of the proposed Project in relation to existing Company facilities, including the existing Corridor Station facility and other associated transmission lines.

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 Company right-of-way ("ROW") and/or on Ohio Power Company property. Due to the location of the existing Corridor Station facility, the short length of the transmission line adjustments 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.

B(5) Public Information Program

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

The Company informs affected property owners and tenants about its projects through several different mediums. Within seven days of filing this LON, the Company 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, the Company will mail a letter, via first class mail, to affected landowners, tenants, contiguous owners, and any other landowner that the Company approaches for an easement necessary for the construction, operation, or maintenance of the facility. The letter complies with all the requirements of Ohio Adm.Code 4906-6-08(B). The Company 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. A paper copy of the LON will be served to the public library in each political subdivision affected by this proposed Project. Lastly, the Company 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 the fourth quarter of 2020, and the anticipated in-service date will be approximately February 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.

Appendix A, Figure 1 provides a topographical map of existing and proposed facilities at 1:24,000, and Figure 2 provides an aerial image showing roads and highways, clearly marked with Project components.

From Columbus, get on I-670 E. Take exit 30 to E Dublin Granville Rd. Then take exit 33 from I-270 N. Turn left on Ulry Rd (1.59mi) to Lee Rd (1.11mi). Turn right on E Walnut St (0.88mi). Turn left on Harlem Rd (0.77mi). The Project area will be on the left.

B(8) Property Agreements

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

The Project is located on property owned by the Company and/or within existing Ohio Power Company easements. No other property easements, options, or land use agreements are necessary to construct the Project or relocate any of the associated transmission lines.

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 relocate six transmission structures on the Corridor Extension No. 1, Corridor Extension No. 2, Corridor - Morse Circuit 1 and Corridor - Morse Circuit 2 138kV transmission lines.

Line: Corridor Ext. 1
Circuit: Corridor-Genoa

Voltage: 138kV
Conductors: 1,272,000 CM (Bittern)
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Single circuit deadend pole. One structure needed.

Line: Corridor Ext. 2
Circuit: Corridor-Gahanna
Voltage: 138kV
Conductors: 1,272,000 CM (Bittern)
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Single circuit deadend pole. Two structures needed.

Line: Corridor-Morse
Circuit: Blendon-Corridor
Voltage: 138kV
Conductors: 1,272,000 CM (Bittern)
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Single circuit tangent pole. One structure needed.

Line: Corridor-Morse
Circuit: Corridor-Morse Road
Voltage: 138kV
Conductors: 1,272,000 CM (Bittern)
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Single circuit deadend pole. Two structures 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.

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$1,319,524.

B(10) Social and Economic Impacts

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

B(10)(a) Land Use Characteristics

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

The Project is located within AEP Ohio property in Westerville, Franklin County, Ohio. The Franklin County Auditor lists the land use of this area as “Other Commercial Structures”. Very minimal tree clearing will be required for the adjustment along the Corridor Extension #2 transmission line only. No environmental or cultural resources are expected to be impacted as a result of this Project. There are no parks, churches, cemeteries, wildlife management areas, or nature preserve lands within 1,000 feet of the Project.

B(10)(b) Agricultural Land Information

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

The Project area is entirely on property owned by the Company, with surrounding agricultural land. It is noted on the Franklin County Auditor site that the parcel is for commercial use and public utility use. There are no impacts to agricultural district lands anticipated.

B(10)(c) Archaeological and Cultural Resources

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

The literature review concluded that there are no archaeological sites or surveys involved in the Project or its study area. There were no sites identified by these surveys relative to the current project. There are no significant resources currently known from the project area.

Cultural resource investigation also included field reconnaissance/testing and report preparation for archaeological resources. The field investigations involved subsurface testing, surface collection and visual inspection. One previously unrecorded site was identified during investigation, 33FR3096. However, the site was not determined to be significant and no further work was deemed necessary (see Appendix C).

Additionally, a history/architecture survey was completed for the Project and consists of a systematic survey of all properties 50 years of age or older that are situated within the project area or have a viewshed of the

proposed project area. The project study area included five buildings 50 years of age or older that consisted of three mid-Twentieth Century residential homes, a house dating to 1840, and a house dating to around 1900. All of the identified resources were found to be clearly not eligible for the NRHP under Criteria A, B, or C due to a lack of associative significance, a loss of integrity, or a lack of character defining features. The resources all experienced alterations that have compromised their historic integrity. A finding of 'no historic properties affected' was recommended for the Project and SHPO agreed with the recommendation (see Appendix C).

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

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

Coordination with the State Historic Preservation Office, United States Fish and Wildlife Service (“USFWS”), and the Ohio Department of Natural Resources (“ODNR”) has been completed and coordination letters can be found in Appendix C.

There are no other known local, state, or federal 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 Company has coordinated with USFWS and ODNR regarding special status species within the vicinity of the Project. No impacts are expected to such species as a result of this Project. Copies of the coordination letters are included as Appendix C.

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.

An Ecological Resources Inventory Report was completed by the Company’s consultants within the Project area and is included as Appendix B. There are no streams impacted by the proposed Project. No wetland

impacts are expected to occur. A SWPPP will be completed for the Project and coordinated directly with the OPSB.

B(10)(g) Unusual Conditions

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

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

APPENDIX A

Figure 1

Figure 2



Legend

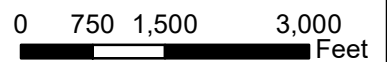
- ▲ Existing Substation
- Existing Structure
- Existing Transmission Lines
- Proposed Transmission Alignment

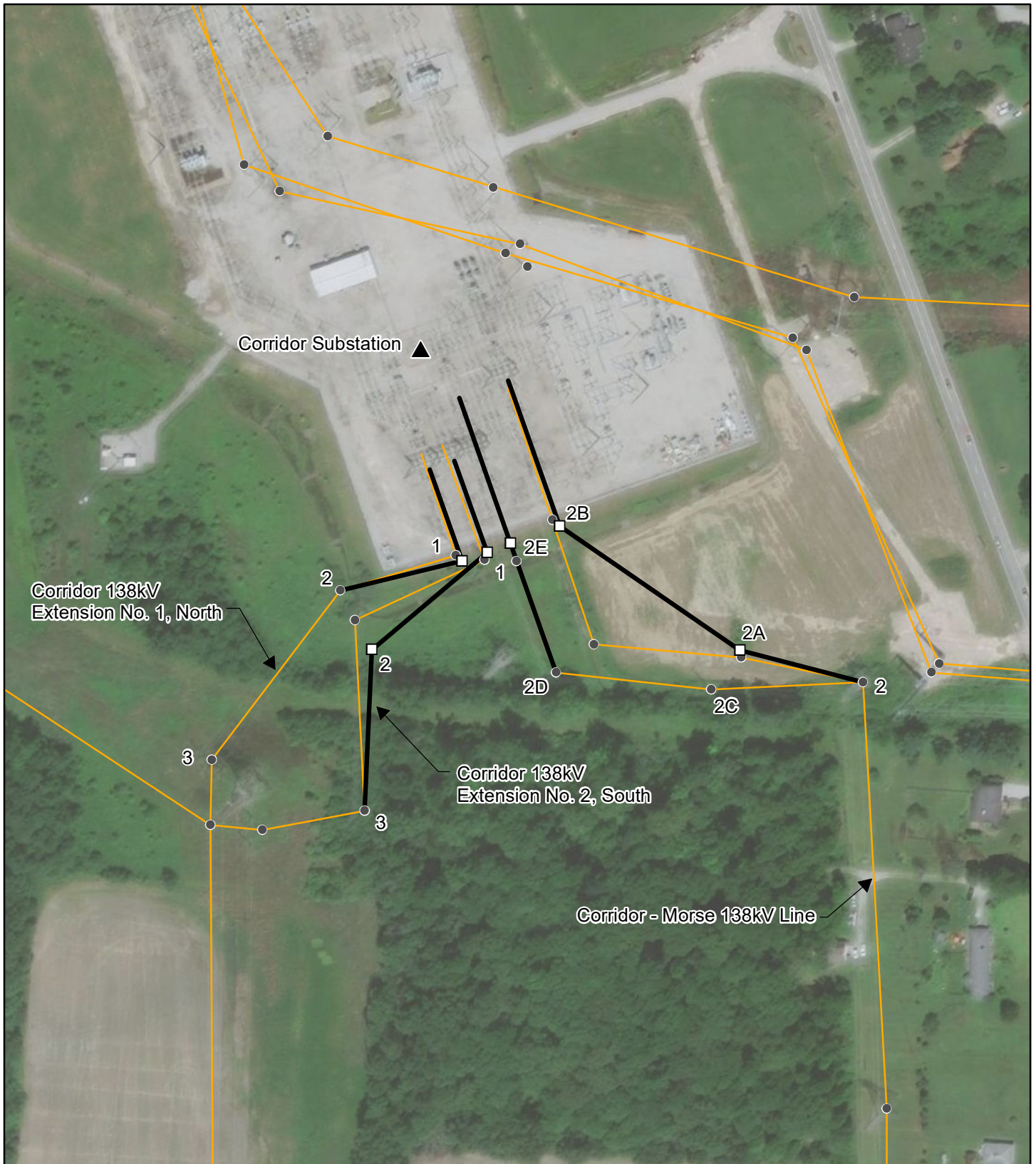
**Corridor Station;
138 kV Line Entrance
Span Modifications**

**Figure 1
Topographic Map**



June 26, 2020





Legend

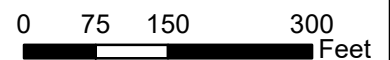
- ▲ Existing Substation
- Proposed Structure
- Existing Structure
- Existing Transmission Lines
- Proposed Transmission Alignment

**Corridor Station;
138 kV Line Entrance
Span Modifications**

July 13, 2020



**Figure 2
Aerial Map**



APPENDIX B Ecological Resources Inventory Report

**Corridor Station Expansion Project,
Franklin County, Ohio**

**Ecological Resources Inventory
Report**



Prepared for:
AEP Ohio Transmission Company, Inc.
700 Morrison Road
Gahanna, Ohio 43230

Prepared by:

Stantec Consulting Services Inc.
1500 Lake Shore Drive, Suite 100
Columbus, Ohio 43204

January 4, 2018

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Table of Contents

LIST OF APPENDICES.....	i
1.0 INTRODUCTION	1
2.0 METHODS.....	2
2.1 WETLAND DELINEATION.....	2
2.2 STREAM DELINEATION.....	2
2.3 RARE SPECIES	2
3.0 RESULTS	3
3.1 TERRESTRIAL HABITAT.....	3
3.2 WETLANDS	4
3.3 STREAMS	4
3.4 OPEN WATER.....	4
3.5 RARE, THREATENED, OR ENDANGERED SPECIES HABITAT.....	5
4.0 CONCLUSIONS AND RECOMMENDATIONS.....	13
5.0 REFERENCES.....	15

LIST OF TABLES

Table 1. Vegetation Communities and Land Cover Found within the Corridor Station Expansion Project Area, Franklin County, Ohio	3
Table 2. Summary of Potential Ohio State-Listed Species within the Corridor Station Expansion Project Area, Franklin County, Ohio	5
Table 3. Summary of Potential Federally-Listed Species within the Corridor Station Expansion Project Area, Franklin County, Ohio	10

LIST OF APPENDICES

APPENDIX A FIGURES	A.1
A.1 Figure 1 – Project Location Map.....	A.1
A.2 Figure 2 – Wetland and Waterbody Delineation Map.....	A.2
A.3 Figure 3 – Habitat Assessment Map	A.3
APPENDIX B AGENCY CORRESPONDENCE	B.1
APPENDIX C REPRESENTATIVE PHOTOGRAPHS	C.1
C.1 Figure 3 Photographs.....	C.1

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

1.0 Introduction

AEP Ohio Transmission Company, Inc. (AEP) is proposing to expand the existing Corridor 345 kV substation (Corridor Station) and to relocate associated transmission lines in Franklin County, Ohio (Figure 1, Appendix A). The Project area includes the existing station pad and adjacent areas where substation expansion and/or transmission line relocation work may occur. 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 September 18, 2017. The approximate locations of features located up to 50 feet outside of the Project area were also recorded during the field surveys, where landowner access was permitted. However, no data forms were collected on features that did not extend into the Project area. These features are shown on the Figure 2 maps in Appendix A as “approximate” wetland, stream (waterway), open water, and upland drainage features.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

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.

3.0 Results

3.1 TERRESTRIAL HABITAT

Stantec completed field surveys within the Project area on September 18, 2017 for wetlands, waterbodies, and threatened and endangered species or their habitats. Figure 2 (Appendix A) shows the wetlands and waterbodies identified by Stantec within the Project area, as well as the locations of open waters and upland drainage features identified within the Project area. Figure 3 (Appendix A) shows the habitats and locations of any identified rare, threatened or endangered species observed within the Project area. Representative photographs of the habitats identified within the Project area are included in Appendix C of this report (photo locations are shown on Figure 3, Appendix A).

Table 1. Vegetation Communities and Land Cover Found within the Corridor Station Expansion Project Area, Franklin County, Ohio

Vegetation Communities and Land Cover Types within the Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
Agricultural Field	Extreme disturbance/ruderal community (dominated by planted non-native row crop species, opportunistic invaders, and/or native highly tolerant taxa).	No	35.8
Industrial	Extreme disturbance/ruderal community (dominated by opportunistic invaders and/or native highly tolerant taxa).	No	18.3
Second Growth Deciduous Forest	Intermediate disturbance (dominated by plants that typify a stable phase of a native community that persists under some disturbance).	No	14.4
Old Field	Area of extreme disturbance/ruderal community dominated by opportunistic invaders or native highly tolerant taxa; An infrequently maintained area dominated by herbaceous species with a limited presence of low-growing woody species.	No	21.6
Gravel Road	Extreme disturbance/ruderal community (dominated by opportunistic invaders and/or native highly tolerant taxa).	No	0.9
Total			91.0

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

3.2 WETLANDS

No wetlands were identified within the Project area during field surveys conducted on September 18, 2017.

3.3 STREAMS

No streams were identified within the Project area during field surveys conducted on September 18, 2017.

3.4 OPEN WATER

No open water bodies were identified within the Project area during field surveys conducted on September 18, 2017.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

3.5 RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Table 2. Summary of Potential Ohio State-Listed Species within the Corridor Station Expansion Project Area, Franklin County, Ohio

Common Name	Scientific Name	State Status ^{1, 2}	Known to Occur in Franklin County?	Known Within One Mile of Project Area? ³	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Amphibians								
Eastern Hellbender	<i>Cryptobranchus alleganiensis alleganiensis</i>	E	Yes	No	Found mostly in unglaciated Ohio and prefer large, swift flowing streams where they hide under larger rocks (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Midland Mud Salamander	<i>Pseudotriton montanus diastictus</i>	T	Yes	No	This salamander is often observed under large, flat stones. They prefer muddy areas (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Mussels								
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 (Butler 2002, 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 was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.
Fanshell	<i>Cyprogenia stegaria</i>	E	Yes	No	This mussel is found in medium to large streams with gravel substrates and strong current, in both deep and shallow water (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Butterfly	<i>Ellipsaria lineolata</i>	E	Yes	No	This mussel is found in large rivers and stretches with pronounced current and substrate of coarse sand and gravel. It can also be found in deep impoundment areas (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Elephant-ear	<i>Elliptio crassidens crassidens</i>	E	Yes	No	This mussel is found in muddy sand, sand, and rocky substrates in moderate currents. In some areas, it is common in large creeks to rivers with moderate to swift currents primarily on sand and limestone or rock substrates (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Common Name	Scientific Name	State Status ^{1,2}	Known to Occur in Franklin County?	Known Within One Mile of Project Area? ³	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Purple Cat's Paw	<i>Epioblasma obliquata obliquata</i>	E	Yes	No	This mussel can be found in medium to large rivers with moderate gradient and riffles. Substrates can be sand to gravel (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	This mussel is found in a wide variety of streams from small to large (USFWS 2016b). Habitat for this species includes riffles and firmly packed substrates of fine to coarse gravel. This mussel needs highly oxygenated water (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	Snuffbox is found buried in riffles of small and medium creeks, in large rivers, and in shoals and wave-washed shores of lakes. Except when spawning, adults are usually burrowed deep in sand, gravel, or cobble substrates (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.
Ebonysell	<i>Fusconaia ebena</i>	E	Yes	No	This species inhabits large rivers and prefers swift water and stable sand or gravel shoals. Coarse sand and gravel substrate provides the most suitable habitat. It can occur at depths of 10-15 feet with current associated (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Long-solid	<i>Fusconaia maculata maculata</i>	E	Yes	No	This species is found in medium to large rivers in gravel with a strong current (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.
Sharp-ridged Pocketbook	<i>Lampsilis ovata</i>	E	Yes	No	This mussel is a generalist, occurring in different sized streams/rivers. Typically occurs in moderate to strong current with substrates of gravel and coarse sand (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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>Megaloniais nervosa</i>	E	Yes	No	Occurs in large rivers, typically in main channel or overbank areas of reservoirs. It is found in areas of slow current with muddy to coarse gravel substrates and water can be up to 50 feet (NatureServe 2017).	No	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated.	Due to the Project 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	Clubshell is found in small to medium rivers, but occasionally 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 (2001) found the clubshell in gravel/sand substrate, runs having laminar flow (0.06-0.25 m/sec) within small to medium sized streams.	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Common Name	Scientific Name	State Status ^{1, 2}	Known to Occur in Franklin County?	Known Within One Mile of Project Area? ³	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Ohio Pigtoe	<i>Pleurobema cordatum</i>	E	Yes	No	Occurs in medium to large rivers directly above riffles of gravel, cobble, and boulder, but occasionally in muddy or sandy or gravel habitats at great depths (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	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 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.
Wartyback	<i>Quadrula nodulata</i>	E	Yes	No	Occurs in medium to large rivers generally in pools with depths up to 15-18 feet. Substrates include sand and mud (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Black Sandshell	<i>Ligumia recta</i>	T	Yes	No	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 (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	Habitat includes large rivers with moderately strong current and stable substrate of gravel, sand, and mud (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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>Unio merus 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 (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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 (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.
Fishes								
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 Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Common Name	Scientific Name	State Status ^{1, 2}	Known to Occur in Franklin County?	Known Within One Mile of Project Area? ³	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
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 with their heads sticking out watching for food (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	This fish is found in large rivers and associated overflow ponds and backwaters (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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. They likely eat various aquatic invertebrates like most other madtom species (ODNR 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.
Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	E	No	No	Adult lampreys are found in clear brooks with fast flowing water and sand or gravel bottoms. Juveniles are found in slow moving water buried in soft substrate in medium to large streams (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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>	T	Yes	No	Habitat for this fish includes rocky pools and runs of cool to warm water. They prefer clear creeks and small to medium sized rivers of moderate gradient with unsilted bottoms of gravel, cobble, and/or boulder. Spawning occurs in gravel nests in slow to moderate current (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	This fish is found in the Ohio River and its larger tributaries, preferring sluggish pools and backwater areas (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project 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	This fish prefers 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 Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the Project location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Common Name	Scientific Name	State Status ^{1, 2}	Known to Occur in Franklin County?	Known Within One Mile of Project Area? ³	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Birds								
Upland Sandpiper	<i>Bartramia longicauda</i>	E	No	No	This species breeds in grasslands, pastures, and unkempt agricultural land (ODNR Division of Wildlife 2017b).	Yes	Potentially suitable habitat (old field, agricultural hayfields) for this species was observed within the Project area. AEP plans to avoid construction in potentially suitable habitat during the species' nesting period of April 15 -July 31. Therefore, no impacts are anticipated.	If suitable habitat will be impacted, the ODNR recommends construction 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.
Butterflies/Moths								
Regal Fritillary	<i>Speyeria idalia</i>	E	Yes	No	Occurs in tall grass prairie remnants (Butterflies and Moths of North America 2017). This species prefers open grassland, savannah, and old field habitats; all with varying degrees of hydrology. Heavily treed areas are not utilized due to the impediment of movement and migration (NatureServe 2017).	Yes	Potentially suitable habitat (old field) was observed within the Project area, but due to the mobility of this species, impacts to this species are not anticipated.	No comments.
Mammals								
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 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 2017a). 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).	Yes	No suitable winter hibernacula were observed in the Project area. However, suitable summer roost habitat was observed in the Project area. AEP intends to avoid areas with summer roost habitat to the extent possible. AEP will determine if any summer tree clearing is necessary in areas containing suitable roost habitat and will proceed in accordance with agency requirements.	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 occur between October 1 and March 31. If suitable trees must be cut during the summer months, the ODNR recommends a net survey be conducted prior to cutting. If no tree removal is proposed, this Project is not likely to impact this species.
¹ According to Ohio Department of Natural Resources Division of Wildlife (ODNR Division of Wildlife 2017a) ² E=Endangered; T=Threatened; X=Presumed Extirpated in Ohio ³ According to Ohio Natural Heritage Program (Appendix B)								

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Table 3. Summary of Potential Federally-Listed Species within the Corridor Station Expansion Project Area, Franklin County, Ohio

Common Name	Scientific Name	Federal Status ^{1, 2}	Known to Occur in Franklin County?	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 2017a). 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).	Yes	No suitable winter hibernacula were observed in the Project area. However, suitable summer roost habitat was observed in the Project area. AEP intends to avoid areas with summer roost habitat to the extent possible. AEP will determine if any summer tree clearing is necessary in areas containing suitable roost habitat and will proceed in accordance with agency requirements.	If the proposed Project area contains trees ≤3 inches dbh, the USFWS recommends that trees be saved wherever possible. If no caves or abandoned mines are present and trees ≤3 inches dbh cannot be avoided, USFWS recommends that removal of any trees ≤3 inches dbh only occur between October 1 and March 31. Seasonal tree clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. If implementation of seasonal tree cutting is not possible, summer surveys may be conducted to document the presence or probable absence of Indiana bats from the Project area during the summer.
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 2016a). 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).	Yes	No suitable winter hibernacula were observed in the Project area. However, suitable summer roost habitat was observed in the Project area. AEP intends to avoid areas with summer roost habitat to the extent possible. AEP will determine if any summer tree clearing is necessary in areas containing suitable roost habitat and will proceed in accordance with agency requirements.	If the proposed Project area contains trees ≤3 inches dbh, the USFWS recommends that trees be saved wherever possible. If no caves or abandoned mines are present and trees ≤3 inches dbh cannot be avoided, USFWS recommends that removal of any trees ≤3 inches dbh only occur between October 1 and March 31. Seasonal tree clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. Incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule.
Mussels							
Clubshell	<i>Pleurobema clava</i>	E	Yes	Clubshell is found in small to medium rivers, but occasionally 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 (2001) found the clubshell in gravel/sand substrate, runs having laminar flow (0.06-0.25 m/sec) within small to medium sized streams.	No	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Common Name	Scientific Name	Federal Status ^{1, 2}	Known to Occur in Franklin County?	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	USFWS Comments/ Recommendations
Northern Riffleshell	<i>Epioblasma torulosa rangiana</i>	E	Yes	This mussel is found in a wide variety of streams from small to large (USFWS 2016b). Habitat for this species includes riffles and firmly packed substrates of fine to coarse gravel. This mussel needs highly oxygenated water (NatureServe 2017).	No	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.
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 (Butler 2002, 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 was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.
Snuffbox	<i>Epioblasma triquetra</i>	E	Yes	Snuffbox is found buried in riffles of small and medium creeks, in large rivers, and in shoals and wave-washed shores of lakes. Except when spawning, adults are usually burrowed deep in sand, gravel, or cobble substrates (NatureServe 2017).	No	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.
Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T	Yes	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 2017).	No	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.
Fish							
Scioto Madtom	<i>Noturus trautmani</i>	E	Yes	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. They likely eat various aquatic invertebrates like most other madtom species (ODNR 2017b).	No	No suitable habitat was observed within the Project area and no in-water work is proposed to occur in perennial streams by AEP. Therefore, no impacts are anticipated. Therefore, no impacts are anticipated.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

Common Name	Scientific Name	Federal Status ^{1, 2}	Known to Occur in Franklin County?	Habitat Preference	Habitat Observed in Project Area?	Impact Assessment	USFWS Comments/ Recommendations
Plants							
Running Buffalo Clover	<i>Trifolium stoloniferum</i>	E	Yes	Running buffalo clover most commonly is mesic woodlands in partial to filtered sunlight, where there is a pattern of moderate periodic disturbance for a prolonged period, such as mowing, trampling, or grazing (NatureServe 2017).	No	No suitable habitat was observed within the Project area.	Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.
¹ E=Endangered; T=Threatened; SOC=Species of Concern ² According to USFWS (2017b).							

4.0 Conclusions and Recommendations

Stantec conducted a wetland and waterbodies delineation and a preliminary habitat assessment for threatened and endangered species within the Project area on September 18, 2017. During the field surveys, no wetlands, streams, or waterbodies were identified within the Project area.

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

Table 2 provides summary information for all state-listed species known to occur within Franklin County. An environmental review request letter was sent to ODNR-Office of Real Estate. The ODNR-Office of Real Estate response indicated that no known records exist of threatened or endangered species within the Project area or a one-mile radius of it. The Project area is, however, within a one-mile radius of Rocky Fork Metro Park and Hoover Reservoir Park. The ODNR -Office of Real Estate response letter (Appendix B) indicates that the Project area is located within range of the following state-listed endangered and/or threatened species: Indiana bat, upland sandpiper, 15 mussel species, and 8 fish species.

The Project is within the range of the Indiana bat (state-listed endangered) and, if suitable habitat occurs within the Project area, the ODNR-Office of Real Estate response indicated trees should be conserved. If suitable habitat occurs within the Project area and trees must be cut, the ODNR-Office of Real Estate recommends that cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the ODNR-Office of Real Estate recommends a net survey be conducted between June 1 and August 15, prior to any cutting.

The Project is within the range of several state-listed mussel and fish species as shown in Table 2. However, due to the location of the Project, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact these species.

Potentially suitable habitat (old field and agricultural hayfield) for the upland sandpiper (state-listed endangered) is present within the Project area. If suitable nesting habitat will be impacted, ODNR-Office of Real Estate recommends construction to be avoided during the species nesting period of April 15 through July 31. If suitable habitat will not be impacted, this Project is not likely to impact upland sandpiper.

Potentially suitable habitat (old field) for the regal fritillary (state-listed endangered) is present within the Project area. Due to the mobility of this species no impacts are anticipated.

The ODNR-Office of Real Estate 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.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

The Project area is located within the known range of the following federally-listed species: Indiana bat (federally-listed endangered), northern long-eared bat (federally-listed threatened), running buffalo clover (federally-listed endangered), and several mussel and fish species as shown in Table 3. A technical assistance letter also was submitted to the USFWS. The USFWS response letter (Appendix B) indicated that this Project is in the range of the Indiana bat and northern long-eared bat. Therefore, the USFWS recommends that trees ≥ 3 inches (dbh) be saved wherever 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. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

The USFWS stated that due to the project type, size, and location, they do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species. They also advised that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat. Best practices should be used to minimize erosion, especially on slopes, and disturbed areas should be mulched and revegetated with native plant species.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

5.0 References

- Badra, P. J. 2001. Special animal abstract for *Pleurobema clava* (northern clubshell). Lansing, Michigan: Michigan Natural Features Inventory.
- 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.
- Butler, R. S. 2002. Status assessment report for the rayed bean, *Villosa fabalis*, occurring in the Mississippi River and Great Lakes systems. U.S. Fish and Wildlife Service Regions 3, 4, and 5, and Canada. 62 pp.
- Butterflies and Moths of North America. 2017. Regal Fritillary. Available at <http://www.butterfliesandmoths.org/species/Speyeria-idalia>. Accessed October 3, 2017.
- 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.
- NatureServe. 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.0. NatureServe, Arlington, VA. U.S.A. Available at <http://explorer.natureserve.org>. Accessed October 3, 2017.
- Ohio Department of Natural Resources (ODNR) Division of Wildlife. 2017a. State Listed Wildlife Species by County. Available at <http://wildlife.ohiodnr.gov/species-and-habitats/state-listed-species/state-listed-species-by-county>. October 3, 2017.
- ODNR Division of Wildlife. 2017b. Species Guide Index. Available at <http://wildlife.ohiodnr.gov/species-and-habitats/species-guide-index/>. Accessed October 3, 2017.
- 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. Ohio EPA Division of Surface Water, Columbus, Ohio. 117 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.

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

- 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 3, 2017.
- USACE. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- United States Fish and Wildlife Service (USFWS). 1994. Clubshell (*Pleurobema clava*) and Northern Riffleshell (*Epioblasma torulosa rangiana*) Recovery Plan. Prepared for the U.S. Fish and Wildlife Service, Hadley, Massachusetts. 68 pp.
- USFWS. 2007. Indiana bat (*Myotis sodalis*) draft recovery plan: First revision. U.S. Fish and Wildlife Service, Ft. Snelling, Minnesota. 258 pp.
- USFWS. 2016a. Northern Long-eared Bat (*Myotis septentrionalis*) Fact Sheet. Available at <https://www.fws.gov/Midwest/endangered/mammals/nleb/nlebFactSheet.html>. Accessed October 3, 2017.
- USFWS. 2016b. Northern riffleshell (*Epioblasma torulosa rangiana*) fact sheet. Available at <https://www.fws.gov/midwest/endangered/clams/n-riffleshell.html>. Accessed December 11, 2017.
- USFWS. 2017a. 2017 Range-wide Indiana Bat Summer Survey Guidelines, April 2017. Available at <https://www.fws.gov/midwest/Endangered/mammals/inba/inbasummersurveyguidance.html>. Accessed October 3, 2017.
- USFWS. 2017b. Federally Listed Species by Ohio Counties. Available at <https://www.fws.gov/midwest/endangered/lists/ohio-spp.html>. Accessed October 3, 2017.
- 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

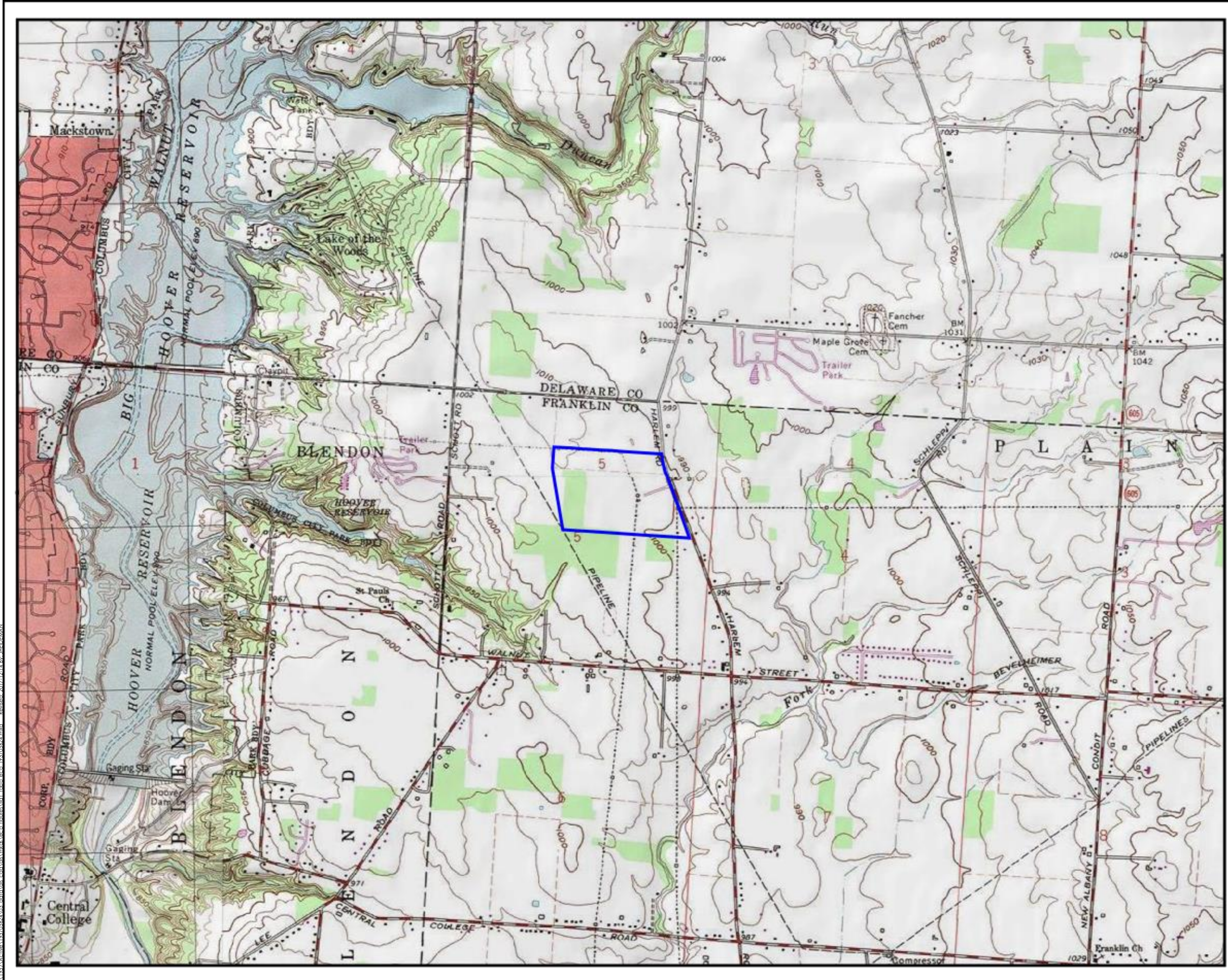
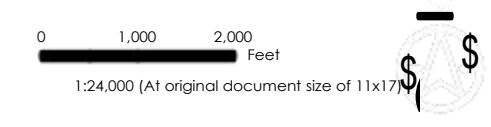



Figure No. **1**
 Title
Project Location Map

Client/Project
 AEP Ohio Transmission Company, Inc.
 Corridor Station Expansion Project

Project Location
 Franklin County, OH
 193705624
 Prepared by J.L.H. on 2017-09-19
 Technical Review by M.T. on 2017-12-08
 Independent Review by J.B. on 2017-12-13



Legend
 Project Area (Substation Property)



Notes
 1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
 2. Data Sources Include: Stantec, AEP, NADS
 3. Background: USGS 7.5' Topographic Quadrangles - New Albany, OH (1983), Sunbury, OH (1981)



VA1937A.ctb\\193705624\03_dan\os_cad\ah.mxd,eco_l\area.eco_193705624.mxd
 Revised: 2017.12.14 by: JHEDEMAN

CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

A.2 FIGURE 2 – WETLAND AND WATERBODY DELINEATION MAP

VA:1937\Active\193705624\03_data\01_cadd\01\mxd\eco\193705624.mxd_Revision:2017.12.14.Rv_JHEDEMAN

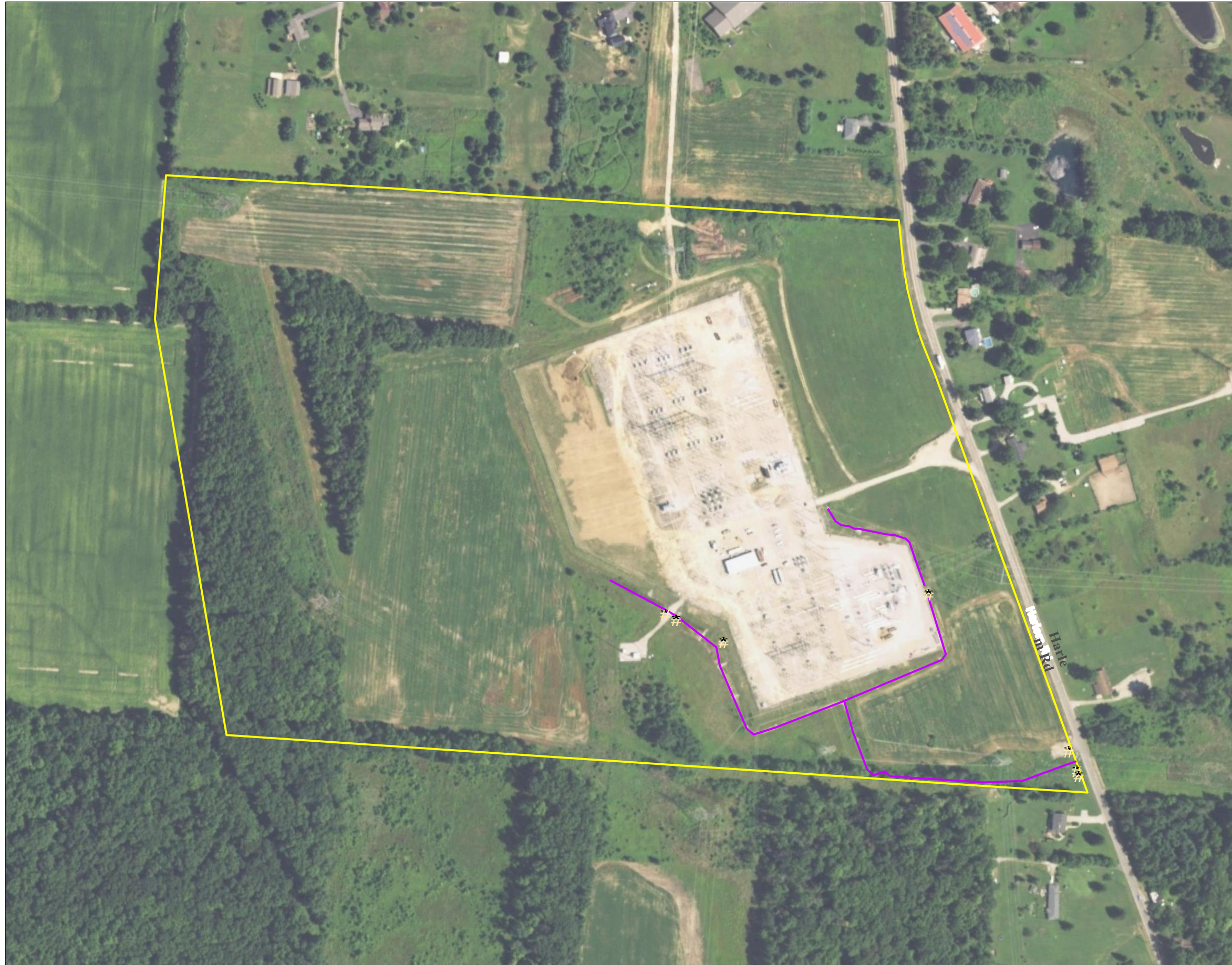
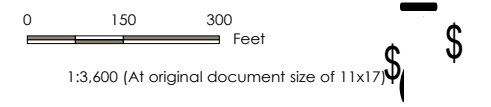


Figure No.
2

Title
**Wetland and Waterbody
Delineation Map**

Client/Project
AEP Ohio Transmission Company, Inc.
Corridor Station Expansion Project

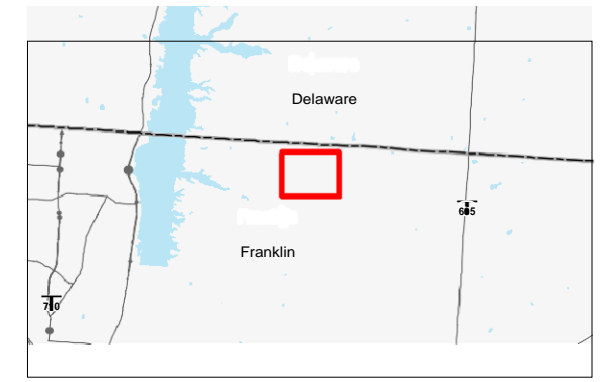
Project Location 193705624
Franklin County, OH Prepared by JH on 2017-09-19
Technical Review by MT on 2017-12-08
Independent Review by JB on 2017-12-14



Legend

- Project Area (Substation Property)
- Existing Culvert
- Upland Drainage Feature
- FEMA Flood Hazard Area*
 - 100-year Flood Zone
 - 100-year Floodway

*No features within data frame



- Notes**
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
 2. Data Sources Include: Stantec, AEP, USGS, FEMA, NADS
 3. Orthophotography: 2015 NAIP



CORRIDOR STATION EXPANSION PROJECT, FRANKLIN COUNTY, OHIO

A.3 FIGURE 3 – HABITAT ASSESSMENT MAP

V:\1937\A\ch\193705624\03_data\03_cadd\03_mxd\03_hab\03_habassess.eco_193705624.mxd - Revised: 2017-12-14 By: JHEDEMAN

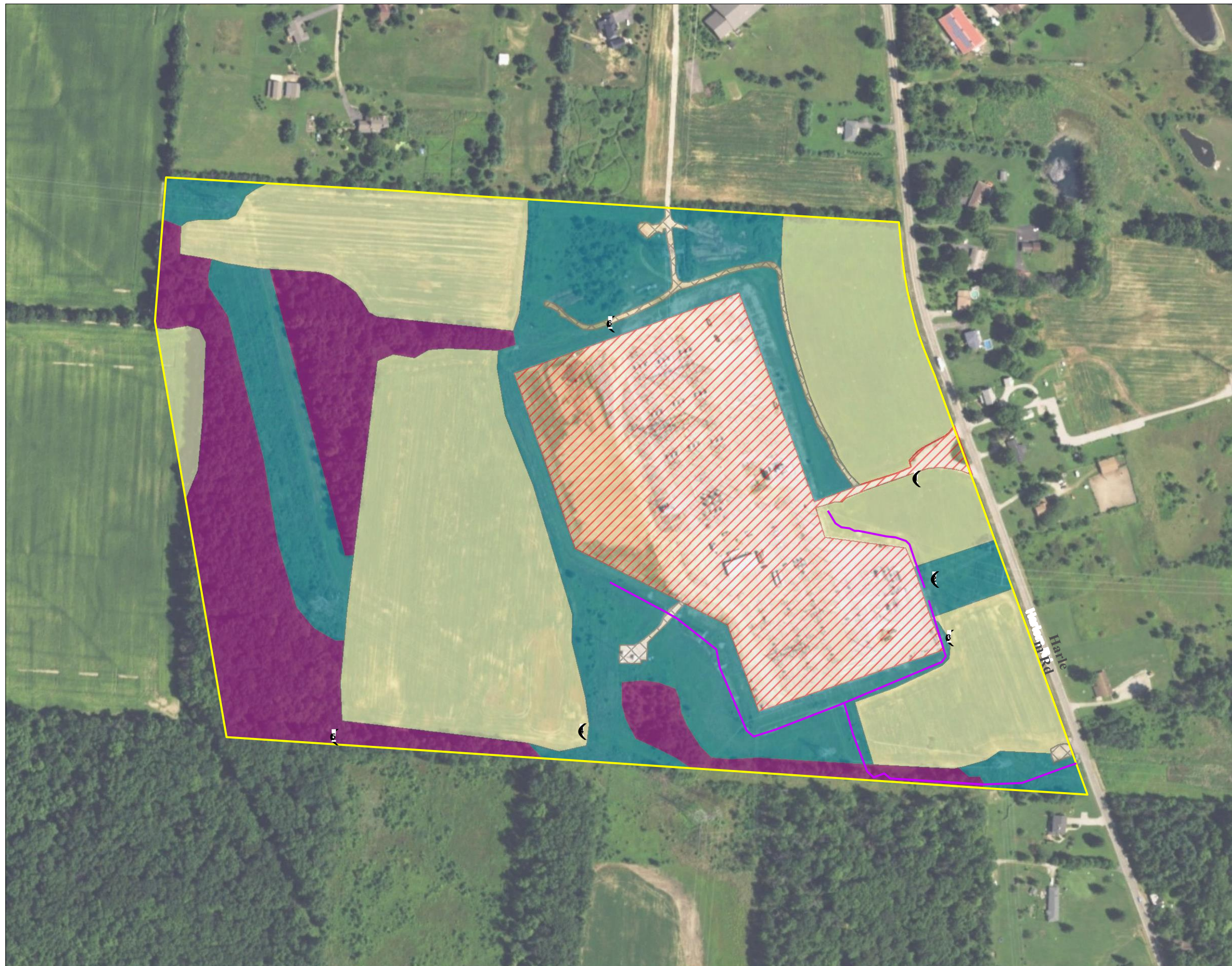


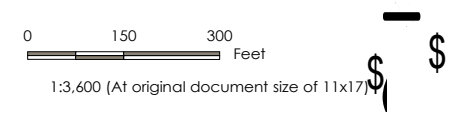
Figure No.
3

Title
Habitat Assessment Map

Client/Project
AEP Ohio Transmission Company, Inc.
Corridor Station Expansion Project

Project Location
Franklin County, OH

193705624
Prepared by HDB on 2017-10-02
Technical Review by MT on 2017-12-08
Independent Review by JB on 2017-12-13



- Legend**
- Project Area (Substation Property)
 - Photo Location
 - Upland Drainage Feature
 - Habitat Area**
 - Agricultural Field
 - Old Field
 - Second Growth Deciduous Forest
 - Gravel Road
 - Industrial



- Notes**
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
 2. Data Sources Include: Stantec, AEP, USGS, NADS
 3. Orthophotography: 2015 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

December 1, 2017

Kim Carter
Stantec
1500 Lake Shore Drive Suite 100
Columbus OH 43204-3800

Re: 17-717; Request for Environmental Review, Corridor Station Expansion Project

Project: The proposed project involves the expansion of the existing Corridor 345kV Substation

Location: The proposed project is in the City of Westerville, 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:

Rocky Fork Metro Park – Columbus & Franklin Co. Metro Parks
Hoover Reservoir Park – Columbus Recreation & Parks

The review was performed on the project area you specified in your 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

Nietz, Jennifer

From: Carter, Kim (Columbus)
Sent: Friday, October 13, 2017 2:21 PM
To: Nietz, Jennifer
Subject: FW: Stantec No. 193705624 - AEP Corridor Station Expansion, Franklin Co. OH

Follow Up Flag: Follow up
Flag Status: Flagged

Kim Carter

Project Manager
Stantec
1500 Lake Shore Drive Suite 100, Columbus OH 43204-3800
Phone: (614) 643-4357
Cell: (614) 286-8056
Kim.Carter@stantec.com



The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

 Please consider the environment before printing this email.

From: susan_zimmermann@fws.gov [mailto:susan_zimmermann@fws.gov] **On Behalf Of** Ohio, FW3
Sent: Wednesday, September 27, 2017 10:35 AM
To: Carter, Kim (Columbus) <Kim.Carter@stantec.com>
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: Stantec No. 193705624 - AEP Corridor Station Expansion, Franklin Co. OH



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# 03E15000-2017-TA-1987

Dear Ms. Carter,

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,

A handwritten signature in black ink, appearing to read "Dan Everson". The signature is written in a cursive style with a large initial "D" and "E".

Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW

Appendix C Representative Photographs

C.1 FIGURE 3 PHOTOGRAPHS

AEP Ohio Transmission Company, Inc.
Corridor Station Expansion Project
Franklin County, Ohio



Photo Location 1. Representative view of agricultural field (hay) habitat. Photograph taken facing south.



Photo Location 2. Representative view of old field habitat. Photograph taken facing southeast.

AEP Ohio Transmission Company, Inc.
Corridor Station Expansion Project
Franklin County, Ohio



Photo Location 3. Representative view of agricultural field (row crop) habitat. Photograph taken facing southeast.



Photo Location 4. Representative view of agricultural field (row crop) habitat. Photograph taken facing west.

AEP Ohio Transmission Company, Inc.
Corridor Station Expansion Project
Franklin County, Ohio



Photo Location 5. Representative view of second growth deciduous forest habitat.
Photograph taken facing west.



Photo Location 6. Representative view of industrial habitat. Photograph taken facing south.

APPENDIX C Agency Coordination Letters



In reply refer to
2017- FRA- 40424

December 12, 2017

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

RE: Corridor Station Safety Fence Project, Plain Township, Franklin County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on November 13, 2017 regarding the proposed Corridor Station Safety Fence Project, Plain 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 C.F.R. 8001]).

The following comments pertain to the *Phase I Archaeological Investigations for the 36.8 ha (91 ac) Corridor Station Safety Fence Project in Plain 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. One (1) Ohio Archaeological Inventory (OAI) site was identified as part of this survey. OAI# 33 FR3096 is a prehistoric period lithic scatter identified during surface collection. The site is not recommended as eligible for listing in the National Register of Historic Places (NRHP). Based on the information provided, we agree the archaeological site is not eligible for listing in the NRHP and no further archaeological work is necessary.

The following comments pertain to the *History/Architecture Investigations for the 36.8 ha (91 ac) Corridor Station Safety Fence Project in Plain 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 five individual properties of fifty years of age or older were identified within the APE.

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.


RPR Serial No: 1071241, 1071242

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

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: 1071241, 1071242



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

December 1, 2017

Kim Carter
Stantec
1500 Lake Shore Drive Suite 100
Columbus OH 43204-3800

Re: 17-717; Request for Environmental Review, Corridor Station Expansion Project

Project: The proposed project involves the expansion of the existing Corridor 345kV Substation

Location: The proposed project is in the City of Westerville, 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:

Rocky Fork Metro Park – Columbus & Franklin Co. Metro Parks
Hoover Reservoir Park – Columbus Recreation & Parks

The review was performed on the project area you specified in your 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

Nietz, Jennifer

From: Carter, Kim (Columbus)
Sent: Friday, October 13, 2017 2:21 PM
To: Nietz, Jennifer
Subject: FW: Stantec No. 193705624 - AEP Corridor Station Expansion, Franklin Co. OH

Follow Up Flag: Follow up
Flag Status: Flagged

Kim Carter

Project Manager
Stantec
1500 Lake Shore Drive Suite 100, Columbus OH 43204-3800
Phone: (614) 643-4357
Cell: (614) 286-8056
Kim.Carter@stantec.com



The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

Please consider the environment before printing this email.

From: susan_zimmermann@fws.gov [mailto:susan_zimmermann@fws.gov] **On Behalf Of** Ohio, FW3
Sent: Wednesday, September 27, 2017 10:35 AM
To: Carter, Kim (Columbus) <Kim.Carter@stantec.com>
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: Stantec No. 193705624 - AEP Corridor Station Expansion, Franklin Co. OH



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# 03E15000-2017-TA-1987

Dear Ms. Carter,

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,

A handwritten signature in black ink, appearing to read "Dan Everson". The signature is written in a cursive style with a large initial "D".

Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW