CONSTRUCTION NOTICE FOR
Wakatomika 138 kV Switch Project

PUCO Case No. 20-1473-EL-BNR

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

Submitted by:
AEP Ohio Transmission Company, Inc.

September 18, 2020
CONSTRUCTION NOTICE FOR WAKATOMIKA 138 KV SWITCH PROJECT

AEP Ohio Transmission Company, Inc.
Wakatomika 138 kV Switch Project

4906-6-05

AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco" or the "Company") is providing the following information to the Ohio Power Siting Board ("OPSB") in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

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

The Company has identified the need to install the new Wakatomika 138 kilovolt ("kV") Switch and one single circuit dead end structure along the Philo - Howard 138 kV transmission line in Butler Township, Knox County, Ohio. These 2 steel poles will replace an existing double circuit lattice tower. The eastern steel pole will be the switch structure. The western steel pole will support the existing circuit.

The Wakatomika 138 kV Switch Project ("Project") is associated with rebuilding the existing Licking Co-Op Extension – Bladensburg 138 kV transmission line (the "Licking Co-Op Extension – Bladensburg 138 kV Transmission Line Project"), which is an asset of Ohio Power Company and will be filed separately with OPSB in Case No. 20-1474-EL-BLN. Map 1 (Appendix A) shows the location of the Project in relation to the surrounding vicinity.

The Project meets the requirements for a Construction Notice ("CN") because it is within the types of projects defined by Item (2)(a) of Appendix A to O.A.C. 4906-1-01, Application Requirement Matrix For Electric Power Transmission lines:

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structure, for a distance of:

(a) Two miles or less.
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B(2) Statement of Need

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

The Company is proposing to install the Wakatomika 138 kV Switch (phase-over-phase), one single circuit dead end structure and approximately 0.04-mile of single circuit transmission line, which will be filed in Case No. 20-1474-EL-BNR, to serve Licking Co-Op's Bladensburg Substation (delivery point) in Knox County, Ohio. Licking Co-Op's Bladensburg delivery point is currently served via a hard tap on the Philo - Howard 138 kV transmission line. The Licking Co-Op's Bladensburg 138 kV delivery point serves approximately 1,449 customers with a peak demand of 3.9 megawatts. In the last 5 years, this delivery point has experienced 553,000 customer minutes of interruption.

Hard taps limit AEP’s ability to sectionalize during outages (planned or unplanned) and can result in over tripping and/or mis-operations affecting customers served from this line. Failure to address the existing hard tap arrangement will result in continued reliability issues to Licking Co-Op’s Bladensburg delivery point and others served from this line. While portions of the Bladensburg load are transferrable to other sources, under high loading conditions, transferring loads can take several hours to accomplish. During these transfers, Licking Co-Op has experienced low voltage conditions in real time operations.

The solution for this Project was presented and reviewed with stakeholders at the March 19, 2020 PJM SRRTEP Western meeting. The Project was subsequently assigned PJM project number s2218. This Project was not included in the Company’s most recent Long-Term Forecast Report because it does not involve the creation of a new transmission line or substation.

B(3) Project Location

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

The location of the Project in relation to existing transmission lines and substations is shown on Map 1 in Appendix A.

In addition to the installation of the Wakatomika 138 kV Switch, the existing 0.04-mile Licking Co-Op Extension – Bladensburg 138 kV transmission line will be rebuilt. The rebuild is an asset of Ohio Power Company and will be filed separately with the OPSB in Case No. 20-1474-EL-BNR (Licking Co-Op Extension – Bladensburg 138kV Transmission Line Project).

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
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not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The Project is located within an existing easement held by the Company. The region surrounding the Project area consists mainly of agricultural fields, an existing substation and medium density residential land use. Although the nearest residence is approximately 180 feet west of the Project area, the Project is entirely within an agricultural field with an existing right of way (“ROW”). No streams or wetlands will be impacted by the Project. The location of the Project minimizes impacts to the community, while taking into account the engineering and construction needs of the Company. Therefore, no alternatives were considered as part of this Project.

B(5) Public Information Program

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

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

B(6) Construction Schedule

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

The Company anticipates construction of the Project will begin in January 2021, and the in-service date (completion date) of the Project will be mid-April 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.

Map 1 included in Appendix A identifies the location of the Project area on a United States Geological Survey 1:24,000 quadrangle map. Map 2 in Appendix A is an aerial map of the Project area.

To visit the Project from Columbus, take I-670 East for 6.1 miles. Then take the I-270 North exit and continue 1.6 miles. Take exit 33 onto OH-161 East and continue 12.7 miles. Take exit 51 and turn left onto Mink Street then continue 5.5 miles. Turn left onto South Main Street and continue 0.3-mile, then turn right onto US 62 and continue 20.2 miles. Turn left onto North Market Street to continue on US 62 for 6.2 miles. Turn right onto OH-229 East and continue 3.5 miles. Project site will be on your right. The coordinates of the proposed Project are latitude 40.333229, longitude -82.238979.
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B(8) Property Agreements

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

The Project is located within two existing easements on privately-owned property (Parcel Number 08-00281.004). The Company is working with the property owner to supplement these easements.

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.

Project construction is estimated to include the following:

Voltage: 138kV
Conductors: 795 kcmil 26/7 ACSR
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 Feet
Structure Types: (1) Single circuit steel pole dead-end structure, (1) Custom switch mounted steel pole

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. The discussion shall include:

No occupied residences are located within 100 feet of the proposed Project. The replacement of a hard tap with a three-way switch is not anticipated to change the existing electric and magnetic fields.

B(9)(c) Project Costs

The estimated capital cost of the project.

The estimated capital cost of the Project, comprised of applicable tangible and capital costs, is approximately $1,386,465. Pursuant to the PJM OATT, the costs for this Project will be recovered in the
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AEP Ohio Transco’s FERC formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP Zone.

**B(10) Social and Economic Impacts**

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

**B(10)(a) 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 Butler Township, Knox County, Ohio. Land use in the Project area consists of agricultural land and residential communities within a rural landscape. Land use at the Project is existing transmission line ROW within and agricultural field. The closest residence is located approximately 180 feet west of the Project. ROW expansion is proposed in an agricultural field used as pasture.

There are no temporary or permanent wetland or stream impacts associated with 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.

According to the Knox County Auditor’s Office on September 1, 2020, Parcel Number 08-00281.004 has a classification as an Agricultural District. The parcel is 164 acres and is comprised of 76 tillable acres, 59 pasture acres, 28 wooded acres and one homestead acre. The Project will affect approximately 0.02 acres of Agricultural District land.

**B(10)(c) Archaeological and Cultural Resources**

Provide a description of the applicant's investigation concerning the presence or absence of significant archeological 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.

A literature review, visual inspection, and shovel test unit excavation were completed by the Company's consultant as part of the archeological investigations. No previously identified archaeological sites are located within the Project area. One new archaeological site was identified (Ohio Archaeological Inventory #35KN0562) a prehistoric lithic scatter. The site was recommended not eligible for listing in the National Register of Historic Places. Ohio State Historic Preservation Office ("OHPO") agreed with the recommendation and no further archaeological work is necessary.

A literature review and field survey were completed by the Company’s consultant as part of the Historical/Architectural investigations. Two properties 50 years of age or older were identified within the
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Project area and/or 1,000-foot study area that may have a direct line of sight to the Project. The properties were recommended not eligible for inclusion in the National Register of Historic Places due to historical and architectural insignificance. The OHPO agreed with the recommendation and no further architectural work is necessary. Copies of the OHPO correspondence is included in Appendix D.

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.

The Project requires replacing one existing double circuit lattice tower with two steel poles with a limit of disturbance less than 20,000SQ FT, which is below the threshold requiring coverage under an Ohio Environmental Protection Agency General Permit for Storm Water Discharges Associated with Construction Activity and is also below the threshold requiring Knox County Stormwater Management and Sediment Control Plan Review.

A wetland and stream identification field investigation was completed by the Company's consultant in January 2020 (Appendix B). No streams or wetlands were identified within the immediate vicinity of the Project and thus impacts to aquatic resources are not anticipated.

The Project is not located within a Federal Emergency Management Agency (“FEMA”) 100-year floodplain area (FEMA, Flood Insurance Rate Map, Panel 0380D, Map Number 39083C0380D, Effective Date July 07, 2009). Therefore, no floodplain permitting is required for the Project.

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.

Coordination with the United States Fish and Wildlife's (“USFWS”) Ohio Ecological Services Field Office was completed under TAILS# 03E15000-2020-TA-0732. A response letter dated February 4, 2020 (Appendix C) indicated the Indiana bat (Myotis sodalis; federally endangered) and northern long-eared bat (Myotis septentrionalis; federally threatened) may occur in the Project area. No adverse effects to these species are anticipated, provided no caves or abandoned mines are impacted and that seasonal tree clearing
restrictions (i.e., federally-listed bat mitigation) are adhered to. The Project does not require tree clearing and will not impact caves or abandoned mines. Thus, impacts to federally-listed species are not anticipated.

Coordination with the Ohio Department of Natural Resources’ (“ODNR”) Division of Wildlife (“DOW”) seeking technical assistance for potential impacts to threatened or endangered species was completed under Reference Number 20-105 (Appendix C). In a response letter dated March 13, 2020, the results of the Natural Heritage Database review and interdisciplinary review within the ODNR indicated that state-listed and natural communities are known to occur near the Project, or the Project is within the range of state-listed species. However, based on the absence of tree removal impacts to aquatic resources, impacts to state-listed species and impacts natural communities within the vicinity of the Project area are not anticipated.

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.

Coordination with the USFWS (Appendix C) indicated there were no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the Project. Coordination with the ODNR DOW (Appendix C) indicated no records of unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, or other protected natural areas were identified in the vicinity of the Project.

No properties identified in the National Conservation Easement Database (http://www.conservationeasement.us) were identified in the Project area.

The Project is not located within a FEMA 100-year floodplain area (FEMA, Flood Insurance Rate Map, Panel 0380D, Map Number 39083C0380D, Effective Date July 07, 2009). Therefore, no floodplain permitting is required for the Project.

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

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.
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To the best of the Company’s knowledge, no unusual conditions exist that would result in substantial environmental, social, health, or safety impacts.
Appendix A  Project Maps

Maps 1 and 2
Proposed Structure (Filed Under Licking Co-Op Extension - Bladensburg 138kV Transmission Line Project)

Existing Structures (To Be Removed)

Proposed 138kV Transmission Line

Existing 138kV Transmission Line

Legend
- Existing Substation
- Proposed Structure
- Existing Structure
- (To Be Removed)
- Proposed 138kV Transmission Line
- Existing 138kV Transmission Line

Map 1
Project Location Map


NAD 1983 State Plane Ohio North Feet

Wakatomika 138kV Switch Project

September 03, 2020
Proposed Structure
(Filed Under Licking Co-Op Extension - Bladensburg 138kV Transmission Line Project)

Legend
- Existing Substation
- Proposed Structure
- Existing Structure (To Be Removed)
- Proposed 138kV Transmission Line
- Existing 138kV Transmission Line


NAD 1983 State Plane Ohio North Feet

Map 2
Aerial Map

September 03, 2020
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Appendix B  Ecological Survey Report
Ecological Survey Report

AEP Ohio Transmission Company
Wakatomika 138 kV Switch Install Project
Knox County, Ohio

GAI Project Number: C170352.93, Task 001

September 2020
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Table 1 Waterbodies Identified Within the Project Study Area
Table 2 ODNR and USFWS Rare, Threatened, and Endangered (RTE) Species and Critical Habitat Review Results

Figure 1 Project Location Map
Figure 2 Resource Location Map
Figure 3 Stream Eligibility Map

Appendix A Photographs
Appendix B Wetland Determination Data Forms
Appendix C ODNR and USFWS Correspondence

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1.0 Introduction

GAI Consultants, Inc. (GAI), on behalf of American Electric Power Ohio Transmission Company (AEP), completed an ecological survey for the Wakatomika 138 kilovolt (kV) Switch Install Project (Project) located in Knox County, Ohio (OH). The proposed Project involves removal of the existing hard tap near the Bladensburg Station, install a new 3-way switch, and relocate the Licking Co-Op – Bladensburg 138 kV Line tie into the switch.

Ecological survey was conducted on January 7, 2020. The Project study area consisted of 1.0-acre area, as shown in Figure 1.

The Project study area is located within the Headwaters Wakatomika Creek (United States Geological Survey [USGS] Hydrologic Unit Code [HUC] #050400040101) watershed.

This report details the results of the ecological surveys regarding the existence of aquatic resources within the Project area (Figure 2). The United States Army Corps of Engineers (USACE) Wetland Determination Data Forms are provided in Appendix B.

2.0 Methods

2.1 Wetlands

The 1987 USACE Corps of Engineers Wetlands Delineation Manual (Wetlands Delineation Manual) (USACE, 1987) and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region, Version 2.0 (Regional Supplement) (USACE, 2012) describe the methods used to identify and delineate wetlands that fall under the jurisdiction of the USACE. This approach recognizes the three (3) parameters of wetland hydrology, hydrophytic vegetation, and hydric soils to identify and delineate wetland boundaries. In accordance with the Wetlands Delineation Manual and Regional Supplement, GAI completed preliminary data gathering and onsite inspections.

2.1.1 Preliminary Data Gathering

The preliminary data gathering is used to compile and review information that may be helpful in identifying wetlands and/or areas that warrant further inspection during the investigation. The preliminary data gathering includes a review of the following:

- USGS 7.5-minute topographic mapping for Martinsburg (USGS, 1963) and Walhonding (1978), OH (Figure 1);
- United States Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) mapping (USFWS, 2017) (Figure 2);
- Federal Emergency Management Agency (FEMA), National Flood Hazard Layer (FEMA, 2015) (Figure 2); and
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS, 2017) soil mapping (Figure 2).

Topographic mapping is used to identify mapped streams and the overall shape of the landscape in the Project area to determine potential locations for wetlands, such as floodplains and depressions. NWI mapping is used to determine locations where probable wetlands are located based on infrared photography. Soil mapping is reviewed to determine the location and extent of mapped hydric soils that have a high probability of containing wetlands.
2.1.2 Onsite Inspection

The methodology described in the Regional Supplement identifies areas meeting the definition of a wetland by evaluating three parameters: hydrology, vegetation, and soil. During the on-site inspection, GAI staff traversed the Project study area on foot to determine if any indicators of wetlands were present. When indicators of wetlands are observed, an observation point is established, and a Wetland Determination Data Form (Data Form) is completed to determine if all three wetland indicators are present.

The presence of wetland hydrology is determined by examining the observation point for primary and secondary indicators of wetland hydrology. The presence of any primary indicator signifies the presence of wetland hydrology, or the presence of two (2) or more secondary indicators signifies the presence of wetland hydrology.

Vegetation is characterized by four (4) different strata. This includes trees (woody plants, excluding vines, three inches or more \([\geq 3.0\text{"}]\) in diameter at breast height [DBH]), saplings/shrubs (woody plants, excluding vines, less than three inches \([<3.0\text{"}]\) DBH and greater than or equal to \([\geq]3.28\text{ feet tall}\)), herbs (non-woody plants, regardless of size, and all other plants less than \([<]3.28\text{ feet tall}\)), and woody vines (greater than 3.28 feet tall). In general, trees and woody vines are sampled within a thirty-foot (30.0’) radius, saplings and shrubs are sampled within a fifteen-foot (15.0’) radius, and herbs are sampled within a five-foot (5.0’) radius.

When evaluating an area for the presence of hydrophytes, classification of the indicator status of vegetation is based on The National Wetland Plant List: 2016 Update of Wetland Ratings (Lichvar et al., 2016). The list of possible indicator statuses for plants is as follows:

- Obligate Wetland (OBL) - Obligate Wetland plants occur in standing water or in saturated soils;
- Facultative Wetland (FACW) - Facultative Wetland plants nearly always occur in areas of prolonged flooding or require standing water or saturated soils but may on rare occasions, occur in non-wetlands;
- Facultative (FAC) - Facultative plants occur in a variety of habitats, including wetland and mesic to xeric non-wetland habitats but often occur in standing water or saturated soils;
- Facultative Upland (FACU) - Facultative Upland plants typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils; and,
- Obligate Upland (UPL) - Obligate Upland plants almost never occur in water or saturated soils.

Presence of hydrophytic vegetation is determined by using a Rapid Test, Dominance Test or Prevalence Index. The Rapid Test finds a vegetation community to be hydrophytic if all dominant species are OBL or FACW. Hydrophytic vegetation is considered present based on the Dominance Test if more than fifty percent (50\%) of dominant species are OBL, FACW, or FAC. The Prevalence Index weighs the total percent of vegetation cover based on the indicator status of each plant. Hydrophytic vegetation is considered present when the Prevalence Index is less than or equal to \((\leq)3.0 \text{ (USACE, 2012)}\).

To determine the presence of hydric soils, soil data is collected by digging a minimum sixteen inch (16.0”) deep soil pit. The soil profile is studied and described, while possible hydric indicators are examined. Soil indicators described in the Wetlands Delineation Manual and Regional Supplement are used to determine the presence of hydric soils. The presence of any of these indicators signifies a hydric soil.
If all three parameters including wetland hydrology, a dominance of hydrophytic vegetation, and hydric soils are identified at a single observation point, the area is determined to be a wetland. Once a wetland is identified, the boundary is delineated.

Wetland boundaries are determined by looking for locations in which one of the three wetland indicators would transition into an upland characteristic. When the transition is identified, a Data Form is completed in the Upland Area. Wetland boundaries are then marked in the field using pink flagging labeled “WETLAND DELINEATION.” The locations of the flags are recorded using a Global Positioning System (GPS) unit. Each wetland is codified with a unique identifier indicating the feature type and number (e.g., W001).

Wetlands are then classified using the *Classification of Wetlands and Deepwater Habitats of the United States* as modified for NWI Mapping Convention. This system classifies wetlands based on topographic position and vegetation type. Palustrine system wetlands found within the study area are classified as Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), Palustrine Forested (PFO), or Palustrine Unconsolidated Bottom (PUB) based on aerial coverage of the vegetative community across the extent of the wetland boundary (Cowardin et al., 1979).

### 2.2 Waterbodies

As with wetlands, Sections 404 and Section 401 of the Clean Water Act (CWA) and state regulations protect waterbodies in OH. Generally, waterbodies are defined as environmental features that have defined beds and banks, ordinary high water mark (OHWM), and contain flowing or standing water for at least a portion of the year.

#### 2.2.1 Preliminary Data Gathering

During the preliminary data gathering, the USGS 7.5-minute topographic mapping is examined for the presence of mapped waterbodies including perennial and intermittent streams. In addition, the topographic mapping is used to identify areas likely to contain unmapped waterbodies including ephemeral streams (USGS, 1963, 1978) (Figure 1).

The OEPA 401 Water Quality Certification for the 2017 Nationwide Permits Stream Eligibility Web Map (OPEA, 2017) is used to determine eligibility for coverage under the 401 Water Quality Certification (WQC) for the 2017 Nationwide Permits (NWPs). Furthermore, the map is used to identify any ineligible areas that may require a CWA Section 401 individual permit from the OEPA should stream impacts occur within the Project area (OEPA, 2017) (Figure 3).

#### 2.2.2 Onsite Inspection

During the onsite inspection, GAI staff traversed the study area, concurrently with the wetland inspection, whereby waterbodies are identified. Waterbodies are identified based on the morphological and hydrologic characteristics of the channel and the presence of aquatic macroinvertebrates.

When a waterbody is identified, field measurements are collected. The measurements include top of bank width, top of bank depth, pool depth, water depth, OHWM width, and OHWM depth. A detailed description of substrate composition is also recorded. Waterbodies are then delineated using white flagging marked with the GAI stream code (e.g., S001). The tops-of-bank for streams wider than ten feet (>10.0’) are delineated, while the centerline of smaller streams is delineated. The locations of the flags are recorded using a sub-meter-capable hand-held GPS unit.
2.3  Rare, Threatened, and Endangered Species

GAI conducts a literature review of potential Rare, Threatened, and Endangered (RTE) species in the vicinity of the Project study area. Potential habitat for RTE species as a result of the literature review is noted during the ecological survey.

2.3.1  Preliminary Data Gathering

State-listed RTE species fall under the jurisdiction of the ODNR, Division of Wildlife, while federally-listed species are covered under Section 7 of the Endangered Species Act. The Bald and Golden Eagle Protection Act and Migratory Bird Act aim to extend protection to certain bird species that fall under the jurisdiction of the USFWS. A request for review of the Ohio Natural Heritage Database (ONHD) is submitted to the Ohio Department of Natural Resources (ODNR) to determine if any state-listed Threatened or Endangered species occur within a one-mile (1.0 mi) radius of the Project area. A request is also submitted to the USFWS Ohio Ecological Services Field Office to determine if any federally-listed Threatened or Endangered species occur within the vicinity of the Project area.

Based on the desktop review and onsite inspection, informal consultation with the ODNR and USFWS has been initiated to determine if any activities associated with the proposed Project may affect state- and/or federally-listed RTE species.

2.3.2  Onsite Inspection

During the onsite inspection, GAI staff traverse the study area in conjunction with the wetland and waterbody inspections to determine if suitable habitat for state- and/or federally-listed RTE species is present within the study area.

3.0  Results

3.1  Wetlands

3.1.1  Preliminary Data Gathering

Desktop review of available USFWS NWI digital data for the Project revealed no NWI mapped wetlands located within the Project study area (USFWS, 2017).

According to the USDA-NRCS soil mapping, three (3) soil map units are located within the Project study area (Figure 2). None of the soil map units are classified as hydric or known to contain hydric inclusions.

3.1.2  Onsite Inspection

No wetlands were identified within the Project study area.

3.1.3  Regulatory Discussion

The USACE guidance divides waterbodies into three (3) groups: Traditionally Navigable Waters (TNWs), non-navigable Relatively Permanent Waters (RPWs), and non-navigable Non-RPWs. TNWs are waterbodies which have been, are, or may be susceptible to use in interstate commerce, including recreational use of the waterbody. RPWs are waterbodies that flow year-round, or at a minimum seasonally, by exhibiting continuous flow for at least three (3) consecutive months, but are not TNWs. Non-RPWs are waterbodies that do not flow continuously for at least three (3) consecutive months, are not TNWs or RPWs, but typically exhibit characteristic beds, banks, and OHWM (USACE, 2007).

The status of wetlands is determined partly based on the classification of the waterbody that the wetland is associated with, and the degree of that association. Wetlands that abut or are...
adjacent to TNWs are jurisdictional. Wetlands that abut RPWs and wetlands that abut or are adjacent to Non-RPWs must be subjected to the Significant Nexus Test (SNT) to determine their jurisdictional status. Generally, the USACE considers wetlands that are isolated, meaning that they are not associated with any other surface water feature, as non-jurisdictional; and wetlands that abut or are adjacent to Non-RPWs as needing further examination by the USACE to determine and verify whether they exhibit a significant nexus to waters of the United States. If these wetlands exhibit a significant nexus, they are jurisdictional; if not, they are not subject to USACE jurisdiction (USACE, 2007).

Wetlands that do not exhibit an association with any surface water are categorized as “isolated” under present USACE guidance and policy (USACE, 2007). These wetlands are regulated by the OEPA Division of Surface Water, and may require an Isolated Wetland Permit.

As regulated by Ohio Administrative Code (OAC) rules 3745-1-50 through 3745-1-54, wetlands were also evaluated using the ORAM to determine the appropriate wetland category. Any wetland score that fell within a gray zone between categories was scored one of two ways. Either the wetland was assigned to the higher of the two categories or it was assessed using a non-rapid method to determine its quality (Mack, 2001). The category assigned to a particular wetland determines the requirement, if any, for additional levels of protection administered by the OEPA.

### 3.2 Waterbodies

#### 3.2.1 Preliminary Data Gathering

Desktop review of the available USGS topographic mapping revealed no previously mapped stream segments located within the Project study area (Figure 1). Desktop review of OEPA’s Stream Eligibility Web Map revealed the Project is located within a possibly eligible and ineligible area for automatic 401 WQC coverage (Figure 3).

#### 3.2.2 Onsite Inspection

One non-jurisdictional ditch and no stream segments were identified within the Project study area. Information on the delineated waterbodies and their classifications can be found in Table 1, and photographs of the identified resources are included in Appendix A.

#### 3.2.3 Regulatory Discussion

As with wetlands, present USACE guidance and policy determines the jurisdictional status of waterbodies identified during the Project. TNWs and RPWs are jurisdictional. Non-RPWs must be subjected to the SNT by USACE to determine their jurisdictional status. If Non-RPWs exhibit a Significant Nexus, as defined in USACE guidance documents, they are jurisdictional. If not, they do not fall under the jurisdiction of the USACE.

Streams are generally defined as environmental features that have defined beds and banks, an OHWM, and contain flowing or standing waters for at least a portion of the year (USACE 2005). Streams were classified as perennial, intermittent, or ephemeral based upon presence of flow, estimated duration of flow, stream bed characteristics, and presence of aquatic biota. The USACE Jurisdictional Determination Form Instructional Guidebook (USACE, 2007) was used to determine stream classification and flow status.

As regulated by OAC Chapter 3745-1-24, streams were also assessed according to OEPA guidance using either the HHEI for watersheds less than one square mile (<1.0 mi²) in size,
or the Qualitative Habitat Evaluation Index (QHEI) for watersheds between one and twenty square miles (1.0-20.0 mi²) in size.

3.3 Rare, Threatened, and Endangered Species

3.3.1 Preliminary Data Gathering

Desktop review of ODNR, Division of Wildlife’s (ODNR-DOW) Ohio’s Listed Species revealed 338 Endangered, Threatened, Species of Concern, and Species of Interest located in OH (ODNR, 2017). Eighteen (18) of the state-listed species are considered federally endangered, and four (4) are federally threatened.

A review of the USFWS County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species for Ohio, as well as the USFWS Information for Planning and Consultation (IPaC) website revealed two (2) federally Endangered or Threatened species that may occur within the Project study area (USFWS, 2017). The list of species includes the following:

- Indiana bat (*Myotis sodalis*) - Endangered;
- Northern long-eared bat (*Myotis septentrionalis*) – Threatened.

In addition to the species listed above, there are two (2) migratory bird species that may occur within the Project study area.

The ODNR and USFWS consultation letters were submitted on January 23, 2020 and are provided in Appendix C. A response from the USFWS was received on February 4, 2020 and the ODNR response was received on September 17, 2020. Both response letters are also provided in Appendix C.

The USFWS identified two bat species that may be present in vicinity of the Project. As the Project area is entirely comprised of grassland pasture and no trees are present, completion of the Project is not likely to affect these species.

The ODNR-DOW identified one bat species, four mussel species, four fish species, and one amphibian species that may be present in vicinity of the Project. As the Project area is entirely comprised of grassland pasture and no streams are present, completion of the Project is not likely to affect these species.

3.3.2 Onsite Inspection

Potential habitat for RTE species was evaluated within the Project study area. Habitat encountered within the study area consisted of fenced grassland pasture. No trees or streams were present in the Project study area. Therefore, impacts to species identified by the ODNR and USFWS are not likely. Representative photographs of the identified habitat are included in Appendix A.

4.0 Conclusions

An ecological survey was conducted within the Project study area on January 7, 2020. One non-jurisdictional ditch and no wetlands or streams were identified within the Project study area. Representative photographs of the Study Area and Resources are included in Appendix A. Habitat for state or federally-listed species was not present within the Project study area.
5.0 References


Ohio Environmental Protection Agency. 2006. Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI). Ohio EPA Division of Surface Water, Columbus, Ohio.


United States Geological Survey. 1963. Martinsburg, Ohio 7.5-Minute Topographic Quadrangle (1:24,000).

United States Geological Survey. 1978. Walhonding, Ohio 7.5-Minute Topographic Quadrangle (1:24,000).
### Table 1
Waterbodies Identified Within the Project Study Area

<table>
<thead>
<tr>
<th>Stream I.D.</th>
<th>Waterbody Name</th>
<th>OEPA WQ Designation</th>
<th>OEPA Stream Eligibility</th>
<th>Stream Type</th>
<th>USACE Classification</th>
<th>HHEI Score⁴</th>
<th>PHWH Class⁵</th>
<th>QHEI Score⁶</th>
<th>Bank Width⁷ (feet)</th>
<th>OHWM Width (feet)</th>
<th>OHWM Depth (inches)</th>
<th>Stream Length⁸ (feet)</th>
<th>Latitude⁹</th>
<th>Longitude⁹</th>
<th>Figure 2 (sheet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditch 001</td>
<td>Non-jurisdictional ditch</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>241.30</td>
<td>40.333213</td>
<td>-82.239460</td>
<td>1</td>
</tr>
</tbody>
</table>

**Notes:**

1. GAI map designation.
3. As defined by the 401 WQC conditions for stream eligibility coverage under the 2017 NWP program. Streams located in Possibly Eligible areas are eligible for coverage if the pH is <6.5 or stream flow is ephemeral. Streams located in Possibly Eligible areas are also eligible for coverage if the HHEI score is <50, or if the HHEI score is between 50-69 and substrate composition is ≤10% coarse types (includes cumulative percentage of bedrock, boulders, boulder slabs, and cobble).
4. Jurisdictional status is the opinion of GAI and must be confirmed by USACE and state agencies through the JD process. RPW - Relatively Permanent Waters.
5. Scoring for OEPA Headwater Habitat Evaluation Index (HHEI) Primary Headwater Habitats (PHWH). Class I = 0 - 29.9 and include “normally dry channels with little or no aquatic life present”; Class II = 30 - 69.9 and are equivalent to “warm water habitat”; Class III = 70 – 100 and typically have perennial flow with cool-cold water adapted native fauna.
6. Narrative rating for headwater streams using the OEPA Qualitative Habitat Evaluation Index (QHEI). Excellent = ≥70; Good = 55 - 60; Fair = 43 - 54; Poor = 30 - 42; Very Poor = <30.
7. Width in feet from tops of stream bank.
8. Total stream length (in feet) located within the Project study area.
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Habitat Type</th>
<th>Listing Status</th>
<th>Habitat Type Present Within the Project Area?</th>
<th>Impacts to Habitat/Species Anticipated?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amphibians</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Hellbender²</td>
<td>Cryptobranchus alleganiensis</td>
<td>Flooded agricultural fields or other water-holding depressions, underground burrows</td>
<td>E, FSC</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td><strong>Bats</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indiana bat³⁴</td>
<td>Myotis sodalis</td>
<td>Trees &gt;3” dbh</td>
<td>E, FE</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td>Northern long-eared bat¹</td>
<td>Myotis septentrionalis</td>
<td>Roost sites can be trees, caves, and mines</td>
<td>SC, FT</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td><strong>Fish</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spotted Darter³</td>
<td>Etheostoma maculatum</td>
<td>Medium sized rivers and streams in swift currents.</td>
<td>E</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td>Mountain Brook Lamprey³</td>
<td>Ichthyomyzon greeleyi</td>
<td>Clear brooks with fast flowing water</td>
<td>E</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td>Tippecane Darter³</td>
<td>Etheostoma tippecane</td>
<td>Riffles of medium to large streams</td>
<td>T</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td>Speckled Chub²</td>
<td>Macrhybopsis aestivalis</td>
<td>Sand and gravel runs of small to large rivers</td>
<td>SE</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td><strong>Mussels</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern Riffleshell²</td>
<td>Epioblasma torulosa rangiana</td>
<td>Large streams and small rivers</td>
<td>E, FE</td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
</tbody>
</table>
## Ecological Survey Report
AEP Ohio Transmission Company
Wakatomika 138 kV Switch Install Project

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Habitat Type</th>
<th>Listing Status</th>
<th>Habitat Type Present Within the Project Area?</th>
<th>Impacts to Habitat/Species Anticipated?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-solid(^2)</td>
<td><em>Fusconaia maculata maculata</em></td>
<td>Large or small rivers with gravel substrate</td>
<td><em>E</em></td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td>Rabbitsfoot(^3)</td>
<td><em>Quadrula cylindrica cylindrica</em></td>
<td>Streams with flowing water</td>
<td><em>E, FT</em></td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
<tr>
<td>Black Sandshell(^3)</td>
<td><em>Ligumia recta</em></td>
<td>Rivers with strong currents and lakes with a firm substrate of gravel or sand</td>
<td><em>T</em></td>
<td>No</td>
<td>No; Known habitat types are not present within the Project area</td>
</tr>
</tbody>
</table>

### Notes:

1. E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; FE = federal endangered; FT = federal threatened; FSC = federal species of concern; FC = federal candidate.
2. Natural Heritage Database record at or within a one-mile radius of the Project area.
3. ODNR, Division of Wildlife (DOW) comments included in the ODNR response, dated September 17, 2020.
FIGURE 2
RESOURCE LOCATION MAP

PROJECT LOCATION

LEGEND

- Culvert
- Stormwater Erosion
- NHD Stream
- OH WQS Stream
- Study Area
- OH EPA Stream Eligibility
  - Eligible
  - Ineligible
  - Possibly Eligible

KNOX COUNTY, OHIO


FIGURE 3
STREAM ELIGIBILITY MAP

WAKATOMIKA SWITCH TRANSMISSION LINE PROJECT
AMERICAN ELECTRIC POWER

DRAWN BY: KJB
CHECKED: EFJ
APPROVED:

G:\C170352.93 - O:\MXD\Figs\Stream_Eligibility_2020_01_16.mxd

DATE: 3/25/2020
APPENDIX A
Photographs
Photograph 1. Culvert at road crossing, Facing West

Photograph 2. Ditch 001, Facing East
Photograph 3. Representative upland habitat, Facing East

Photograph 4. Representative upland habitat, Facing South
Photograph 5. Representative upland habitat, Facing West

Photograph 6. Representative upland habitat, Facing South
APPENDIX B

Wetland Determination Data Forms
WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Watauga
City/County: Knox Co.
Sampling Date: 1/1/2020

Applicant/Owner: ATP
State: OH
Sampling Point: STP-001

Investigator(s): KLU
Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): none
Slope (%): 0.7

Subregion (LRR or MLRA): LBRN
Lat: 40.333182
Long: -82.239191
Datum: NAD 83

Soil Map Unit Name: HDBB-Hemlock/Silva
WNI classification: NA

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

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

Are Vegetation no, Soil no, or Hydrology no, naturally problematic? (If needed, explain any answers in Remarks.)

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

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Hydric Soil Present? Yes

Hydrological Vegetation Present? Yes

Remarks: Soil test pit 141. Data taken within fenoreal pasture kind.

HYDROLOGY

<table>
<thead>
<tr>
<th>Wetland Hydrology Indicators:</th>
<th>Secondary Indicators (minimum of two required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Indicators (minimum of one is required; check all that apply)</td>
<td>Surface Soil Cracks (B6)</td>
</tr>
<tr>
<td>Surface Water (A1)</td>
<td>True Aquatic Plants (B14)</td>
</tr>
<tr>
<td>High Water Table (A2)</td>
<td>Hydrogen Sulfide Odor (C1)</td>
</tr>
<tr>
<td>Saturation (A3)</td>
<td>Oxidized Rhizospheres on Living Roots (C3)</td>
</tr>
<tr>
<td>Water Marks (B1)</td>
<td>Presence of Reduced Iron (C4)</td>
</tr>
<tr>
<td>Sediment Deposits (B2)</td>
<td>Recent Iron Reduction in Tilled Soils (C6)</td>
</tr>
<tr>
<td>Drift Deposits (B3)</td>
<td>Thin Muck Surface (C7)</td>
</tr>
<tr>
<td>Algal Mat or Crust (B4)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>Iron Deposits (B5)</td>
<td></td>
</tr>
<tr>
<td>Inundation Visible on Aerial Imagery (B7)</td>
<td></td>
</tr>
<tr>
<td>Water-Stained Leaves (B9)</td>
<td></td>
</tr>
<tr>
<td>Aquatic Fauna (B13)</td>
<td></td>
</tr>
</tbody>
</table>

Field Observations:

Surface Water Present? Yes | No (vide Depth (inches):)
Water Table Present? Yes | No (vide Depth (inches):)
Saturation Present? (includes capillary fringe) Yes | No (vide Depth (inches):)

Wetland Hydrology Present? Yes | No

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

Remarks:

Wetland hydrology is not present.
**VEGETATION (Four Strata) – Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 30' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. none</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
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<td></td>
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<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

50% of total cover: \( \boxed{0} \) = Total Cover

20% of total cover: \( \boxed{0} \)

**Sapling/Shrub Stratum (Plot size: 15' )**

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. none</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
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<tr>
<td>4.</td>
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<td>5.</td>
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<tr>
<td>6.</td>
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<tr>
<td>7.</td>
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<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

50% of total cover: \( \boxed{0} \) = Total Cover

20% of total cover: \( \boxed{0} \)

**Herb Stratum (Plot size: 5' )**

<table>
<thead>
<tr>
<th>Herb Stratum</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dactylis glomerata</td>
<td>90 ( \checkmark ) FacU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Daucus carota</td>
<td>10 ( \times ) Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

50% of total cover: \( \boxed{100} \) = Total Cover

20% of total cover: \( \boxed{0} \)

**Woody Vine Stratum (Plot size: 30' )**

<table>
<thead>
<tr>
<th>Woody Vine Stratum</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. none</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

50% of total cover: \( \boxed{0} \) = Total Cover

20% of total cover: \( \boxed{0} \)

**Dominance Test worksheet:**

- Number of Dominant Species That Are OBL, FACW, or FAC: \( \boxed{0} \) (A)
- Total Number of Dominant Species Across All Strata: \( \boxed{1} \) (B)
- Percent of Dominant Species That Are OBL, FACW, or FAC: \( \boxed{0} \) (A/B)

**Prevalence Index worksheet:**

- Total % Cover of: Multiply by:
  - OBL species \( \times 1 \) =
  - FACW species \( \times 2 \) =
  - FAC species \( \times 3 \) =
  - FACU species \( \times 4 \) =
  - UPL species \( \times 5 \) =
- Column Totals: \( \boxed{0} \) (A) \( \boxed{0} \) (B)
- Prevalence Index = \( \frac{A}{B} \) =

**Hydrophytic Vegetation Indicators:**

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0′
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)

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

**Definitions of Four Vegetation Strata:**

- **Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
- **Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
- **Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
- **Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**

- Yes __________ No \( \checkmark \)

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

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

<table>
<thead>
<tr>
<th>Depth</th>
<th>Matrix</th>
<th>Redox Features</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1.6</td>
<td>10YR 4/3</td>
<td>100%</td>
<td></td>
<td>Shalem</td>
</tr>
</tbody>
</table>

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

**Hydric Soil Indicators:**
- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyclude Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

**Indicators for Problematic Hydric Soils:**
- 2 cm Muck (A10) (MLRA 147)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

**Restrictive Layer (if observed):**
Type: 
Depth (inches): 

<table>
<thead>
<tr>
<th>Hydric Soil Present?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Remarks: Hydric Soils not present.
APPENDIX C

ODNR and USFWS Correspondence
September 17, 2020

Kristen Vonderwish
GAI Consultants
6000 Town Center Blvd., Suite 300
Canonsburg, PA 15317

Re: 20-105; AEP - Wakatomika 138 kV Switch Install Project

Project: The proposed project involves the removal of the existing hard tap near the Bladensburg Station, install a new 3-way switch, and relocate the Licking Co-Op - Bladensburg 138 kV Line tie into the switch.

Location: The proposed project is located in Butler Township, Knox 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 no records at or within a one-mile radius of the project area.

A review of the Ohio Natural Heritage Database indicates there are no other records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. 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.

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 to include: 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 consist 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 northern riffleshell (*Epioblasma torulosa rangiana*), a state endangered, and federally endangered mussel, the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered, and federally threatened mussel, the long solid (*Fusconaia maculata maculata*), a state endangered mussel, and the black sandshell (*Ligumia recta*), 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 spotted darter (*Etheostoma maculatum*), a state endangered fish, the mountain brook lamprey (*Ichthyomyzon greeleyi*), a state endangered fish, the speckled chub (*Macrhybopsis aestivalis*), a state endangered 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 eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, 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.

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)
January 23, 2020

Project C170352.93

Environmental Review Staff
Ohio Department of Natural Resources
Division of Wildlife - Ohio Natural Heritage Program
2045 Morse Road, Building G-3
Columbus, Ohio 43229-6693

American Electric Power
Wakatomika 138 kV Switch Install Project
Request for Technical Assistance Regarding Threatened and Endangered Species and Critical Habitat
Knox County, Ohio

Dear Staff:

GAI Consultants, Inc. (GAI), on behalf of American Electric Power (AEP), is requesting information regarding state- and federally-listed threatened and endangered species in the vicinity of the Wakatomika 138 kilovolt (kV) Switch Install Project (Project) in Knox County, Ohio. As part of this request, please also provide information specific to any threatened and endangered bats. GAI is also requesting the locations of any known golden or bald eagle nests known in the area.

The proposed Project (1.0 acre) involves removal of the existing hard tap near the Bladensburg Station, install a new 3-way switch, and relocate the Licking Co-Op – Bladensburg 138 kV Line tie into the switch.

The study area for the Project is shown on the attached map (Figure 1). The habitat within the study area consists of fenced pasture. Project shapefiles have been included to aid in your review.

GAI and AEP thank you in advance for your assistance. Please contact me at 234.203.0772 or via email at k.vonderwish@gaiconsultants.com if you have any questions or require further information.

Sincerely,

GAI Consultants, Inc.

Kristen L. Vonderwish
Project Environmental Specialist

Attachments:  
Attachment 1 (Project Location Map)  
Project Shapefiles
ATTACHMENT 1

PROJECT LOCATION MAP
Dear Ms. Vonderwish

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 in Ohio summer mist net 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,

Patrice M. Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
    Kate Parsons, ODNR-DOW
January 23, 2020
Project C170352.93

Ms. Patrice M. Ashfield
United States Fish and Wildlife Service
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230

American Electric Power
Wakatomika 138 kV Switch Install Project
Request for Technical Assistance Regarding Threatened
and Endangered Species and Critical Habitat
Knox County, Ohio

Dear Ms. Ashfield:

GAI Consultants, Inc. (GAI), on behalf of American Electric Power (AEP), is requesting information regarding state- and federally-listed threatened and endangered species in the vicinity of the Wakatomika 138 kilovolt (kV) Switch Install Project (Project) in Knox County, Ohio. As part of this request, please also provide information specific to any threatened and endangered bats. GAI is also requesting the locations of any known golden or bald eagle nests known in the area.

The proposed Project (1.0 acre) involves removal of the existing hard tap near the Bladensburg Station, install a new 3-way switch, and relocate the Licking Co-Op – Bladensburg 138 kV Line tie into the switch.

The study area for the Project is shown on the attached map (Figure 1). The habitat within the study area consists of fenced pasture. Project shapefiles have been included to aid in your review.

GAI and AEP thank you in advance for your assistance. Please contact me at 234.203.0772 or via email at k.vonderwish@gaiconsultants.com if you have any questions or require further information.

Sincerely,

GAI Consultants, Inc.

Kristen L. Vonderwish
Project Environmental Specialist

Attachments: Attachment 1 (Project Location Map)
Project Shapefiles
ATTACHMENT 1

PROJECT LOCATION MAP
FIGURE 1
PROJECT LOCATION MAP

WAKATOMIKA SWITCH
INSTALL PROJECT
AMERICAN ELECTRIC POWER

DRAWN BY: KJB
CHECKED: EFJ
APPROVED:

CONSTRUCTION NOTICE FOR WAKATOMIKA 138 KV SWITCH PROJECT

Appendix C  PJM Submittal
Need Number: AEP-2019-OH050

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 05/11/2020

Previously Presented:
Needs Meeting 8/29/2019
Solutions Meeting 3/19/2020

Project Driver:
Equipment Material/Condition/Performance/Risk

Specific Assumption Reference:
AEP Guidelines for Transmission Owner Identified Needs

Problem Statement:
• The Bladensburg Licking Rural Electrification Co-op (LRE) 138 kV delivery point, connected to the 45 mile North Bellville – Ohio Central 138 kV circuit, has a load of 3.9 MW peak demand serving 1449 customers. The Bladensburg load is 100% transferrable but under high loading conditions transferring loads can take several hours. For heavy loading periods LRE has experienced areas of low voltage while transferring loads.
• The Blandensburg delivery point has experienced approximately 553,000 minutes of CMI over the last 5 years.
• This delivery point is connected to the North Belleville – Ohio Central 138 kV circuit via a hard tap which limits operational flexibility and the effectiveness of protection schemes. In addition, it is difficult to coordinate maintenance efforts because the line cannot be removed from service without either a customer outage or temporary jumper configuration.
Need Number: AEP-2019-OH050
Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 05/11/2020

Selected Solution:
- Install a new 3-way 1200A switch with Auto-Sectionalizing, MOABs, and SCADA to serve the existing Bladensburg Delivery Point (Wakatomika). Additional structure work on the existing line will be required to accommodate the new switching structure. (S2218)

Ancillary Benefits: Removes a hard tap from the 138kV system and provides a more reliable service to customers.

Estimated Cost: $1.90M
Projected In-Service: 4/15/2021
Supplemental Project ID: S2218
Project Status: Engineering
Model: N/A
Appendix D  Ohio State Historic Preservation Office Correspondence
January 7, 2020

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

RE: Wakatomika 138kV Switch Project, Butler Township, Knox County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on December 9, 2019 regarding the proposed Wakatomika 138kV Switch Project, Butler Township, Knox 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 (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the Phase I Archaeological Survey for the Approximately 0.4 ha (1.0 ac) Wakatomika 138kV Switch Project in Butler Township, Knox County, Ohio by Weller & Associates, Inc. (2019).

A literature review, visual inspection, and shovel test unit excavation was completed as part of the investigations. No previously identified archaeological sites are located within the project area. One (1) new archaeological site was identified, Ohio Archaeological Inventory (OAI) #33KN0562, a prehistoric lithic scatter. The site was recommended not eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with this recommendation and no further archaeological work is necessary.

The following comments pertain to the History/Architecture Investigations for the Approximately 0.4 ha (1.0 ac) Wakatomika 138kV Switch Project in Butler Township, Knox County, Ohio by Weller & Associates, Inc. (2019).

A literature review and field survey were completed as part of the investigations. Two properties fifty years of age or older were identified within the project area and/or 1,000’ study area that may have a direct line of sight to the project. It is Weller’s recommendation that the identified properties are not eligible for inclusion in the National Register of Historic Places due to historical and architectural insignificance. Our office agrees with Weller’s recommendations of eligibility.

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) 298-2000, or by e-mail at jwilliams@ohiohistory.org, or Krista Horrocks at khorrocks@ohiohistory.org. Thank you for your cooperation.

RPR Serial No: 1081847-1081848

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

Joy Williams

Joy Williams, Project Reviews Manager
Resource Protection and Review

cc: Pattarin Jarupan, AEP (pjarupan@aep.com)