

LETTER OF NOTIFICATION FOR STERLING- FOUNDRY PARK 138KV TRANSMISSION LINE RAISE PROJECT



An **AEP** Company

BOUNDLESS ENERGY™

PUCO Case No. 21-0590-EL-BLN

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

Submitted by:
Ohio Power Company

June 9, 2021

LETTER OF NOTIFICATION FOR STERLING-FOUNDRY PARK 138KV TRANSMISSION LINE RAISE PROJECT

**LETTER OF NOTIFICATION
Ohio Power Company
Sterling-Foundry Park 138-kV Transmission Line Raise Project**

4906-6-05

Ohio Power Company (the “Company”) provides 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 Letter of Notification.

The Company is proposing the Sterling – Foundry Park 138kV Transmission Line Raise Project (the “Project”) in Allen County, Ohio. The Project consists of raising the height of approximately 0.28-mile of the existing single circuit Sterling – Foundry Park 138kV transmission line to accommodate the rebuild of the Lima Pumping Extension 34.5kV transmission line to 69kV standards. The four existing structures are wood monopoles that will be replaced with steel monopoles as part of this Project. This Project is part of the overall Lima Pumping Extension Rebuild Project.

Figure 1 in Appendix A shows the location of the Project in relation to the surrounding area. Figure 2 in Appendix A shows the Project in relation to the immediate vicinity. Technical features of this Project are discussed in Section B9.

The Project meets the requirements for a Letter of Notification (“LON”) because it is within the types of projects defined by Item (1)(b) of *Appendix A* to OAC 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. 21-0590-EL-BLN.

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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 Sterling – Foundry Park 138kV transmission line crosses the Lima Pumping Extension 34.5kV line near Structure 11 on the Sterling – Foundry Park 138kV transmission line. The Lima Pumping Extension 34.5kV line is currently built and operated at 34.5kV; however, the line is currently being rebuilt to 69kV standards as part of PJM project s2352. In order to provide the required electrical clearance for crossing the rebuilt 69kV line, Structures 9-12 on the Sterling-Foundry Park 138kV transmission line will need to be raised.

Lima Pumping Extension is a 34.5kV radial transmission line serving two retail customers. Most of this line still has the original wood pole structures and #2 ACSR/AW Sparrow conductors installed in 1943. Customers on this line have experienced 95,000 customer minutes of interruption over the last 5 years. This radial line has 35 total splices and 5 poles with asset renewal conditions on them; these include both hardware and structural issues. Many of the outages have been caused by bird contact on the line due to an obsolete cross arm construction and inadequate phase spacing. During these outages, the burned down 34.5kV conductors end up falling into and faulting the underbuilt distribution line, interrupting several hundred additional distribution customers.

Further, both of the retail customers are served from a hard tap. 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 will result in continued reliability issues to the customer's delivery points. Eliminating the hard tap and replacing it with the 69 kV switch, as proposed in PJM project s2352, will significantly improve reliability to the customers by allowing maintenance to occur without significant interruptions and will help with restoration times in this location.

Without the Project, the Lima Pumping Extension Rebuild project cannot be completed, leaving customers connected to the 34.5kV line subject to continued outages due to the condition of the 34.5kV radial line.

The Project is necessary to support PJM Supplemental Project (s2352). During detailed engineering of s2352, it was determined that there was insufficient clearance from the Sterling-Foundry Park 138kV transmission line to the Lima Pumping Extension 34-kV transmission line. However, as raising the line to accommodate the Lima Pumping Extension does not result in an operation, modeling or topology change to the electrical grid, the Project does not need to be presented to PJM. This PJM Supplemental Project was originally presented and reviewed with stakeholders on August 14, 2020 PJM SRRTEP-Western meeting. The Project was not listed in the 2021 LTFR because it does not create a new transmission networked facility.

B(3) Project Location

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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 stations is shown on a 1:24,000 quadrangle map (Lima (1984) and Cridersville (1984)) in Map 1 in Appendix A and on 2018 aerial imagery in Map 2 in Appendix A (Esri World Imagery, OSIP 2018).

The Project directly impacts Structure 11 and Structure 13 along the existing Lima Pumping Extension 34-kV line.

B(4) Alternatives Considered

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

The Project is located within an existing easement held by the Company on Parcel Number 1900689015. The region surrounding the Project area consists mainly of medium-density residential, commercial, and industrial land use. Although the nearest residence is approximately 60 feet east of the Project area, the Project is entirely within the existing 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 informs affected property owners and tenants about its projects through several different medium. 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 mailed a letter, via first class mail, to affected landowners, tenants, contiguous owners, and any other landowner the Company approached for an easement necessary for the construction, operation, or maintenance of the facility. The letter complies with all the requirements of O.A.C. Section 4906-6-08(B). 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.

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B(6) Construction Schedule

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

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The Company anticipates construction of the Project will begin in September 2021, and the in-service date of the Project will be late December 2021.

B(7) Area Map

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

Figure 1 included in Appendix A identifies the location of the Project area on a United States Geological Survey 1:24,000 quadrangle map (Lima, OH 1984 and Cridersville OH, 1984). Figure 2 in Appendix A is an aerial map of the Project area (Esri World Imagery, OSIP 2018).

To visit the Project from Columbus, take I-70 W/1-71 S. Continue on I-70 W towards Dayton for approximately 15 miles, then take exit 93 to merge onto I-270 N toward Cleveland. After 59.2 miles take exit 17B for OH-161 W/US-33 W toward Marysville. After 6.9 miles turn left to stay on US-33 W. After 9.1 miles, turn right onto OH-65 N. After 1.0 mile, turn left onto E Breese Road. In 1.4 miles, turn right onto McClain Road. Continue for approximately 1.4 miles and the Project site will be on your left. The coordinates of the southernmost proposed structure rebuild are latitude 40.707773, longitude -84.108414.

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.

Property Parcel Number	Existing Easement Agreement/Option Obtained (Yes/No)
46120001015000	Yes
46120004001000	Yes

B(9) Technical Features

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

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

The Sterling-Foundry rebuild line is planned to include:

Voltage:	138 kV
Conductors:	795 kcmil 45/7 ACSR Tern
Static Wire:	7#10 Alumoweld
Insulators:	Polymer Insulators
ROW Width:	100 Feet
Structure Types:	Single circuit steel pole horizontal post structure. Four(4) structures are needed. Two (2) single circuit galvanized steel pole, braced post structures. Two(2) single circuit galvanized steel pole, horizontal post structures

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:

B(9)(b) Electric and Magnetic Fields

There are three residences (assumed to be occupied) located within 100 feet of the proposed Project. However, the replacement structures are along an existing line with no deviations to the current alignment. The Company's consultant completed an electromagnetic field (EMF) survey in April 2021.

Three loading conditions were examined: (1) Normal Maximum Loading, (2) Emergency Loading, and (3) Winter Normal Conductor Rating, consistent with the OPSB requirements. Normal Maximum Loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal (WN) conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. **It is not anticipated that this line would operate at its WN rating in the foreseeable future.**

EMF levels were computed one meter above ground under the line and at the ROW edges (50/50 feet, left/right, of centerline).

Our results, calculated using EPRI's EMF Workstation 2015 software are summarized below.

Sterling - Foundry Park 34.5kV Line
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Condition	Load (Amps)	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading^	234.3	47.69	0.05/0.13/0.05	4.93/9.13/4.32
(2) Emergency Line Loading^^	384.9	47.21	0.05/0.13/0.05	8.18/15.26/7.16
(3) Winter Conductor Rating^^^	1322.0	47.69	0.05/0.13/0.05	27.84/51.49/24.39

*EMF levels (left ROW edge/maximum/right ROW edge) computed one meter above ground at the point of minimum ground clearance, assuming balanced phase currents and 1.0 P.U. Voltages. ROW width is 50 feet (left) and 50 feet (right) of centerline, respectively.

^Peak line flow expected with all system facilities in service.

^^Maximum flow during a critical system contingency

^^^Maximum continuous flow that the line, including its terminal equipment, can withstand during winter conditions.

For power-frequency EMF, IEEE Standard C95.6TM-2002 recommends the following limits:

	General Public	Controlled Environment
	-----	-----
Electric Field Limit (kV/m)	5.0	20.0
Magnetic Field Limit (mG)	9040	27,100

The above EMF levels are well within the limits specified in IEEE Standard C95.6TM-2002. Those limits have been established to "prevent harmful effects in human beings exposed to electromagnetic fields in the frequency range of 0-3 kHz."

Therefore, changes to the existing electric and magnetic fields as a result of this Project are not anticipated.

B(9)(c) Project Costs

The estimated capital cost of the project.

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The estimated capital cost of the Project, comprised of applicable tangible and capital costs, is approximately \$380,495 (Class 4). Pursuant to the PJM OATT, the costs for this Project will be recovered in the Ohio Power Company's FERC formula rate (Attachment H-14 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.

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The Project is located within the village of Fort Shawnee and the city of Lima, Allen County, Ohio. Land use at the Project location is industrial, consisting of existing transmission line ROW and roadway infrastructure bordering a residential area. Land use within the vicinity of the Project consists of residential communities and commercial and industrial properties within a rural landscape. Residential development is isolated to the east of the Project. The closest residence is located approximately 60 feet east of the Project, with additional residences located approximately 185 feet northeast and 135 feet southeast of the Project. No ROW expansion is proposed for this Project.

There are no temporary or permanent wetland or stream impacts associated with the Project. The Project is not located within a flood hazard area (FEMA Flood Insurance Rate Map #39079C0161K, Effective Date December 18, 2009).

According to the OH Department of Transportation, Transportation Information Mapping System, there are no scenic byways within 1,000 feet of the Project.

According to the OH Department of Natural Resources (ODNR) Land and Facilities Map Viewer there are no lands or facilities under their jurisdiction within 1,000 feet of the Project.

There are no known parks or other recreational resources within 1,000 feet of the Project.

The Project will not require tree cutting.

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 Allen County Auditor's Office, as of May 13, 2021, the parcels crossed by the Project are not registered as Agricultural District land. Additionally, the Project does not cross active agricultural row crop land (Appendix A, Figure 2).

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.

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The Company's consultant completed an archaeological and architectural resource literature review within a 1,000-foot radius of the Project in September 2020. Information regarding known locations of archaeological and architectural resources and their National Register of Historic Places (NRHP) status were obtained from the Ohio State Historic Preservation Office's (SHPO), archival materials at the respective county courthouses, local libraries, and several online resources. As part of this review, the Archeological Atlas of Ohio (Mills 1914) did not identify any resources in the vicinity of the Project area. Further, no recorded archaeological sites were identified in the Project study area. The Ohio Historical Index (OHI) files indicated that there are no previously recorded OHI properties located within the vicinity of the Project or its study area, and, based on a review of NRHP files and SHPO consensus Determinations of Eligibility (DOE) files, no NRHP or DOE properties were identified within the vicinity of the Project or its study area.

A review of CRM/contract files indicated that there was one previously conducted survey that involved a slight overlap of the Project area, however no sites identified by this previous survey are located within the Project study area.

Historical atlases were also reviewed for this Project. The USGS 1906 Lima, Ohio 15 Minute Series (Topographic) map indicated that industrial development had encroached upon the Project area at the beginning of the twentieth century. A railroad was apparent at the western end of the project area corridor, and oil tanks were prevalent in the remainder of the area. The USGS 1994 Lima, Ohio 7.5 Minute Series (Topographic) map depicted buildings, residences, tanks, and industrial development in the surrounding area with a substation in the western part of the Project study area.

Based on this review, no previously recorded cultural resources were identified within 1,000 feet of the Project. A small part of the Project was the subject of a previous survey (Wellspring et al. 2016); however, there were no relative sites identified by this prior survey within the Project area. Soils data suggested this entire area is contained in built land.

The archaeological and architectural field reconnaissance involved visual inspection and subsurface testing. The field investigations encountered severely disturbed conditions, and there were no archaeological sites identified. Three architectural resources were identified immediately adjacent to the Project area (S-1/ ALLO071407; S-2/ ALLO071507; and S-3/ ALLO071612), however none of these sites will be impacted. No other significant resources that are older than 50 years of age or older were identified within the Project Area of Potential Effect. Therefore, no further cultural resource management work was deemed necessary for this project, and the Company's consultant recommended that the Project was not likely to have adverse effects on known archaeological or historic properties.

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,

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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 four structures with a total limit of disturbance of less than 1 acre, which is below the threshold requiring coverage under an Ohio Environmental Protection Agency General Permit for Storm Water Discharges Associated with Construction Activity. This project will be constructed with an adjacent transmission line with a combined limit of disturbance exceeding 1 acre. Therefore, a Notice of Intent ("NOI") will be necessary for the Project. Additionally, a Stormwater Management and Sediment Control permit will be obtained from the Allen County Engineer, Drainage Department.

The Company's consultant completed a wetland delineation and stream identification field review for the Project in June 2021 (Appendix D). One wetland was identified within the study area; however, there are no temporary or permanent wetland or stream impacts associated with the Project. Therefore, Clean Water Act Section 401/404 permits will not be needed.

The Project is not located within a Federal Emergency Management Agency ("FEMA") 100-year floodplain area (FEMA, Flood Insurance Rate Map, Panel 0330, Map Number 39003C0330D, Effective Date May 2, 2013). Therefore, no floodplain permitting is required for the Project.

State and municipal road and driveway authorizations are required.

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.

A coordination letter was submitted to the United States Fish and Wildlife Service ("USFWS") Ohio Ecological Services Field Office on August 28, 2020 seeking technical assistance on the Project for potential impacts to threatened or endangered species. In a response email dated September 4, 2020, the USFWS noted the potential for the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) to occur within the Project area. The USFWS recommended that if tree removal was required for the Project, it be limited to the time between October 1 and March 31 to avoid the potential for take of the Indiana bat and northern long-eared bat. As the Project does not require tree clearing and will not impact caves or abandoned mines, no adverse effects to these species are anticipated. The USFWS also stated that due to the Project type, size, and location, no adverse effects to other federally endangered, threatened, or proposed species or designated critical habitat are anticipated.

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A coordination letter was submitted to the ODNR on August 28, 2020 seeking technical assistance on the Project for potential impacts to threatened or endangered species. In a response dated October 28, 2020, ODNR Division of Wildlife (“DOW”) noted that the Project is in the vicinity of records for the little brown bat (*Myotis lucifugus*) (state endangered). Because presence of state endangered bat species has been established in the area, the ODNR-DOW recommended that summer tree cutting be avoided and noted that additional summer surveys would not constitute presence/absence in the area. The ODNR-DOW noted that limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW. However, as the Project does not require tree clearing, no adverse effects to this species are anticipated.

The ODNR-DOW also noted the potential for the Indiana bat (state endangered and federally endangered), northern long-eared bat (state endangered and federally threatened), and the tricolored bat (*Perimyotis subflavus*) (state endangered) to occur within the Project area. ODNR-DOW recommended that if tree removal was required for the Project, it be limited to the time between October 1 and March 31 to avoid potential for take of the state and/or federally listed bat species. ODNR-DOW also recommended conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH \geq 20 if possible. The ODNR DOW recommended that the Company conduct a desktop review of the Project area to identify portals and potential hibernacula for state and federally-listed bat species. The Company’s consultants completed a desktop review on May 13, 2021. According to the ODNR’s Ohio Mine data, there are no underground mines or mine openings located within a one-mile radius of the Project. As the Project does not require tree clearing and will not impact caves or abandoned mines, no adverse effects to these species are anticipated.

The ODNR indicated the Project is within the range of the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the northern riffleshell (*Epioblasma torulosa rangiana*), a state endangered and federally endangered mussel, and the pondhorn (*Unio merus tetralasmus*), a state threatened mussel. Impacts to mussels are not anticipated because no in-stream work is required to construct the Project.

The ODNR indicated the Project is within the range of the pirate perch (*Aphredoderus sayanus*), a state endangered fish, and the greater redhorse (*Moxostoma valenciennesi*), a state threatened fish. No impacts to the identified fish species are anticipated as no in-stream work is proposed for the Project.

The ODNR indicated that the Project is within the range of the upland sandpiper (*Bartramia longicauda*) a state threatened bird. Based on the scope and location of the Project and nominal disturbance to herbaceous open space, breeding habitat for this species will not be affected by the Project and therefore, not impact the species.

Coordination letters from USFWS and ODNR are provided in Appendix C.

B(10)(f) Areas of Ecological Concern

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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 letters were submitted to the USFWS and ODNR requesting a review of the Project and identification of areas of ecological concern. The ODNR Natural Heritage Database did not indicate any records of state endangered or threatened plants or animals, state potentially threatened plants, special interest or species of concern animals, or any federally listed species within the Project area or a one-mile radius of the Project area. Additionally, the ODNR did not indicate 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 or a one-mile radius of the Project area.

A review of the National Conservation Easement Database and the USACE Regulatory In-lieu Fee and Bank Information Tracking System did not identify mapped easements or mitigation sites in the Project area.

The Project is not located within a flood hazard area (FEMA, Flood Insurance Rate Map, Panel 0330, #39003C0330D, Effective Date May 2, 2013). Floodplains and floodways are shown on Figure 2 in Appendix D.

A wetland delineation and stream identification field review were completed for the Project by the Company's consultant in June 2021. The results of the field review are presented in the Ecological Survey Report included in Appendix D. In general, the habitat encountered within the study area consisted of maintained transmission line ROW along a roadway and open field within an industrial and residential area. One wetland and no streams were identified within the study area.

B(10)(g) Unusual Conditions

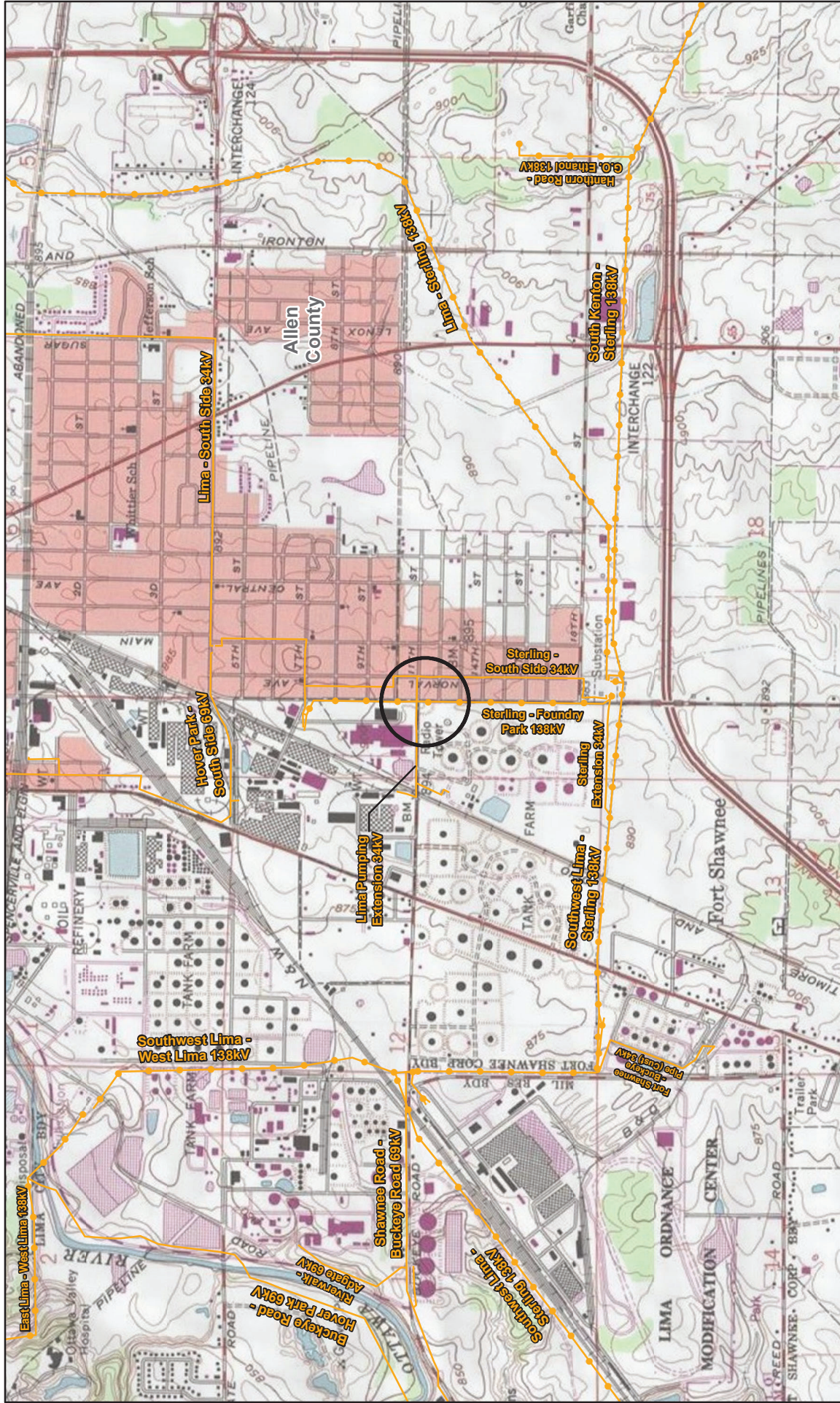
Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

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

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APPENDIX A

Project Maps



Legend

- Existing 69-kV or Lower Transmission Line
- Existing 138-kV Transmission Line
- Project Area
- County Boundary



USGS Topographic (Lima (1984) and Cridersville (1984), Ohio), Esri ArcGIS Online, Accessed 05/2021.



NAD 1983 State Plane
Ohio North Feet

May 14, 2021

Figure 1 Project Location Map



Sterling-Foundry Park 138-kV
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Legend

- Existing Structure To Be Raised
- Existing Sterling-Foundry Park 138-kV Transmission Line To Be Raised
- Existing 69-kV or Lower Transmission Line
- Existing 138-kV Transmission Line

Aerial Imagery, Ohio State Imagery Program (OSIP), 2018. Esri World Transportation, ArcGIS Online, Accessed 05/2021.

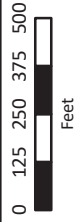
NAD 1983 State Plane
Ohio North Feet

May 14, 2021



Figure 2
Aerial Map

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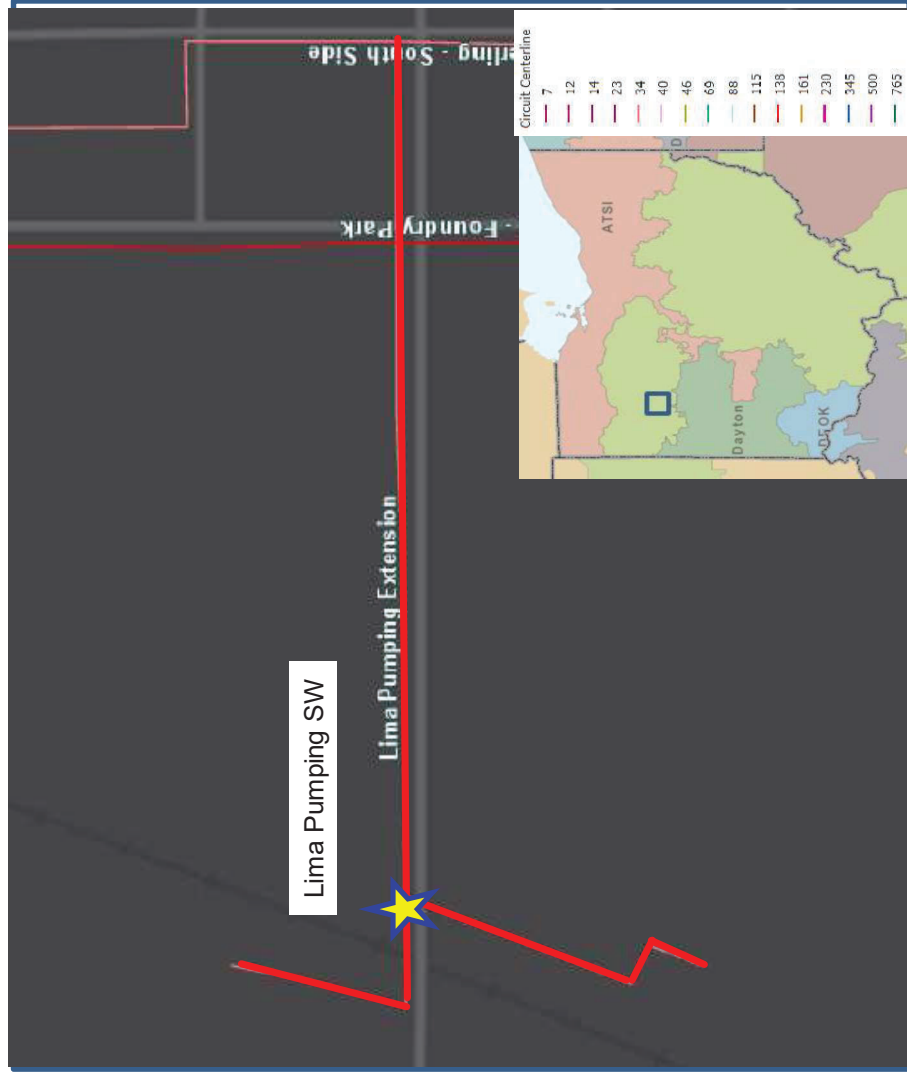


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APPENDIX B

PJM Interconnection Submittal

AEP Transmission Zone M-3 Process Lima Pumping Extension Rebuild



Need Number: AEP-2020-OH009

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/20/2020

Previously Presented:

Needs Meeting 2/21/2020

Solutions Meeting 8/14/2020

Project Driver:

Equipment Material/Condition/Performance/Risk, Operational Flexibility and Efficiency, Customer Service

Specific Assumption Reference:

AEP Guidelines for Transmission Owner Identified Needs

Problem Statement:

Equipment Material/Condition/Performance/Risk:

- This line consists of 15 wood pole structures and has predominantly the original #2ACSR/AW Sparrow conductors installed in 1943. 9 out of the 15 structures on this line were installed more than 60 years ago. 5 year CMI on this circuit is approx. 95,000. The existing construction is obsolete crossarm construction with 35 kV vertical stud post insulators. A couple of the poles have shield wire support bay-o-nets.

Operational Flexibility and Efficiency

- The line has experienced four (4) conductor failures since August 1, 2018. The first 8 spans of the line have 35 total splices. In most cases the burned down 34.5 kV conductors end up falling into and faulting the AEP Ohio 3-phase distribution underbuild, interrupting several hundred additional distribution customers.

Customer Service:

- Marathon Pipe Line has experienced multiple outages to their facilities due to geese contact with AEP's 34.5 kV transmission line serving them and another customer. Additionally these two customers are connected off of a hard tap at the end of the radial 34.5 kV line forcing both of them to be out when one of them request and outage.

AEP Transmission Zone M-3 Process
Lima Pumping Extension Rebuild

Need Number: AEP-2020-OH009

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/20/2020

Selected Solution:

- Rebuild the ~0.4 miles, 34.5 kV Lima Pumping Line Extension to 69 kV standards (operated at 34.5 kV). **(S2352.1) Estimated Cost \$2.3M**
- Rebuild the ~0.1 miles, 34.5 kV Ex-cell-o Line Extension to 69 kV standards (operated at 34.5 kV). **(S2352.2) Estimated Cost \$0.5M**
- **Lima Pumping Switch 34.5kV:** Install new 69 kV, 1200A, 40kA 3-way phase-over-phase manual switch on the Sterling – South Side Lima 34.5 kV circuit. **(S2352.3) Estimated Cost \$0.4M**
- **Airfoil Switch 34.5kV:** Install new 69kV, 1200A, 40kA 2-way Phase-over-phase manual switch on the Lima Pumping Extension. **(S2352.4) Estimated Cost \$0.6M**

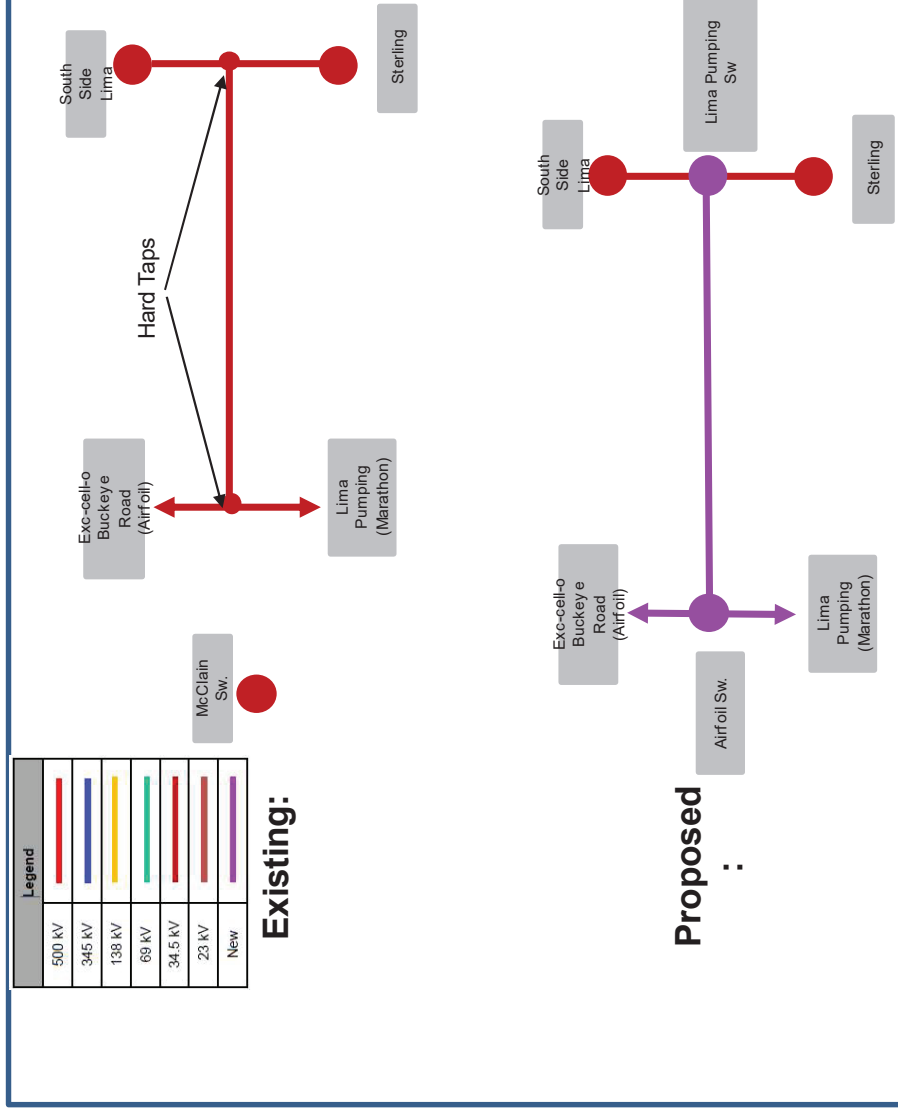
Estimated Cost: \$3.8 M

Projected In-Service: 11/15/2021

Supplemental Project ID: S2352.1-4

Project Status: Scoping

Model: 2023 RTEP



**LETTER OF NOTIFICATION FOR STERLING-FOUNDRY PARK 138KV TRANSMISSION LINE RAISE
PROJECT**

APPENDIX C

Agency Correspondence



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief

2045 Morse Road – Bldg. E-2

Columbus, OH 43229

Phone: (614) 265-6621

Fax: (614) 267-4764

October 28, 2020

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

Re: 20-855; AEP-Lima Pumping Extension Rebuild Project

Project: The proposed project involves the rebuilding and the relocation of the Lima Pumping Extension line asset (0.4-mile) and Excello Extension line asset (0.1-mile) to 69 kilovolt (kV) standards (currently operated at 34.5 kV).

Location: The proposed project is located in Lima Township, Allen 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 vicinity of records for the little brown bat (*Myotis lucifugus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Sarah Stankavich, sarah.stankavich@dnr.state.oh.us).

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

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS “Range-wide Indiana Bat Survey Guidelines.” If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, sarah.stankavich@dnr.state.oh.us for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the northern riffleshell (*Epioblasma torulosa rangiana*), a state endangered and federally endangered mussel, and the pondhorn (*Unio merus tetralasmus*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact these species.

The project is within the range of the pirate perch (*Aphredoderus sayanus*), a state endangered fish, and the greater redhorse (*Moxostoma valenciennesi*), a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

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 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)



In reply, refer to
2021-ALL-51578

May 26, 2021

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

RE: Lima Pumping Extension Rebuild Project, City of Lima, Allen County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on May 18, 2021 regarding the proposed Lima Pumping Extension Rebuild Project, City of Lima, Allen 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 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Cultural Resource Management Investigations for the Approximately .6 km (.4 mi) Lima Pumping Extension Rebuild Project in the City of Lima, Allen County, Ohio* by Weller & Associates, Inc. (2021).

A literature review, visual inspection, shovel probe excavation was completed as part of the investigations. No previously identified archaeological resources are located within the project area and no new archaeological sites were identified during survey. The entire project area was found to be highly disturbed. Our office agrees no further archaeological survey is necessary. A literature review and field survey were completed as part of the investigations. Three history/architecture resources fifty years of age or older were identified within the Area of Potential Effects during the field survey. It is Weller's recommendation that none of these properties are eligible for inclusion in the National Register of Historic Places. Our office agrees with Weller's recommendations of eligibility.

The following comments pertain to the *Cultural Resources Management Review for Access Road and Work Pad Areas associated with the Lima-Pumping Extension Project in the City of Lima, Allen County, Ohio* by Weller & Associates, Inc. (2021).

The revised project area, including access road and work pad areas, were found to be highly disturbed. No additional archaeological sites or history architecture resources were located within the project area or viewshed. Our office agrees no additional survey work is necessary.

Based on the information provided, we agree that the proposed project will have no effect on 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 khorrocks@ohiohistory.org or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1088636

Elizabeth Dubnicay

From: Ohio, FW3 <ohio@fws.gov>
Sent: Friday, September 4, 2020 3:23 PM
To: Kristen Vonderwish
Cc: Joshua Noble
Subject: AEP- Lima Pumping Extension Rebuild Project located in Allen County, Ohio

EXERCISE CAUTION: This is an External Email Message!

****Think before clicking on links, opening attachments, or responding****



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# 03E15000-2020-TA-2249

Dear Ms. Vonderwish,

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

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found 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 breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet 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, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal 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 removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is 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, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field 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.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then 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 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. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

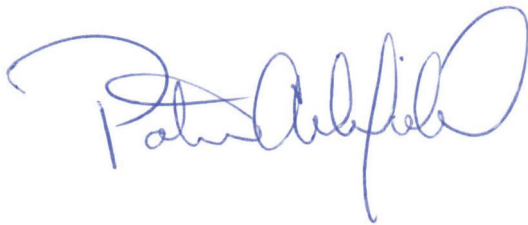
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army 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. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or 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, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@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 Ashfield
Ohio Field Office Supervisor

APPENDIX D

Ecological Survey Report

Ecological Survey Report

American Electric Power Ohio Transmission Company
Lima Pumping Extension Rebuild Project
Allen County, Ohio

GAI Project Number: R200062.11, Task 003

October 2020



Prepared by: GAI Consultants, Inc.
Canton Office
3720 Dressler Road Northwest
Canton, Ohio 44718

Prepared for: American Electric Power Service Corporation
1 Riverside Place, 22nd Floor
Columbus, Ohio 43215-2373

Ecological Survey Report

American Electric Power Ohio Transmission Company
Lima Pumping Extension Rebuild Project
Allen County, Ohio

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October 2020

Prepared for:
American Electric Power Service Corporation
1 Riverside Place, 22nd Floor
Columbus, Ohio 43215-2373

Prepared by:
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Canton Office
3720 Dressler Road Northwest
Canton, Ohio 44718

Report Authors:

Kristen L. Vonderwish
Project Environmental Specialist

Joshua J. Noble, MS
Senior Environmental Manager

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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 Lima Pumping Extension Rebuild Project (Project) located in Allen County, Ohio (OH). AEP is proposing to rebuild and relocate approximately 0.5 miles of existing transmission line in two line assets: Lima Pumping Extension (0.4-mile) and Excello Extension (0.1-mile). The Project includes the rebuilding of two existing structures along the Stelring-Foundary 138 kilovolt (kV) transmission line.

Ecological surveys were conducted on September 18, 2020. The Project study area consisted of an approximately 100-foot-wide corridor centered along the existing transmission line, as shown in Figure 1.

The Project study area is located within the Little Ottawa River (USGS HUC #041000070401) and Lima Reservoir-Ottawa River (USGS HUC #041000070306) watersheds.

This report details the results of the ecological surveys regarding the existence of aquatic resources within the Project area (Figure 2). Photographs of representative habitat types within the Project study area are included in Appendix A. Coordination with state and federal agencies for protected species is provided in Appendix B.

2.0 Methods

2.1 Wetlands

The 1987 United States Army Corps of Engineers (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 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 helpful in identifying wetlands and/or areas that warrants further inspection during the investigation. The preliminary data gathering includes a review of the following:

- ▶ USGS 7.5-minute topographic mapping for Cadiz (1973) and Smithfield (1985), 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).
- ▶ 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 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 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 a primary indicator signifies the presence of wetland hydrology, and the presence of two or more secondary indicators signifies the presence of wetland hydrology.

Vegetation is characterized by four different strata. This includes trees (woody plants, excluding vines, three inches or more [≥ 3.0] in diameter at breast height [DBH]), saplings/shrubs (woody plants, excluding vines, less than three inches [< 3.0] DBH and greater than or equal to [\geq] 3.28 feet tall), herbs (non-woody plants, regardless of size, and all other plants less than [$<$] 3.28 feet tall), and woody vines (greater than 3.28 feet tall). In general, trees and woody vines are sampled within a 30-foot radius, saplings and shrubs are sampled within a 15-foot radius, and herbs are sampled within a five-foot 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.
- ▶ Obligate Upland (UPL) – Obligate Upland plants almost never occur in water or saturated soils.

The 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 50 percent 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 (USACE, 2012).

To determine the presence of hydric soils, soil data is collected by digging a minimum 16-inch 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 determine the presence of hydric soils. The presence of these indicators signifies a hydric soil.

If all 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 where 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 (for example, 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 and West Virginia. 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, 1978, 1985) (Figure 1).

The Ohio Environmental Protection Agency (OEPA) 401 Water Quality Certification for the 2017 Nationwide Permits Stream Eligibility Web Map (OEPA, 2017) is used to determine eligibility for coverage under the 401 Water Quality Certification (WQC) for the 2017 Nationwide Permits (NWP). Furthermore, the map is used to identify 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 (for example, S001). The tops-of-bank for streams wider than 10 feet 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 Species (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 Ohio Department of Natural Resources (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. Based on the desktop review and onsite inspection, informal consultation with the ODNR and USFWS has been initiated to determine if activities associated with the proposed Project may affect state- and/or federally-listed RTE species.

A request for review of the Ohio Natural Heritage Database is submitted to the ODNR to determine if state-listed Threatened or Endangered species occur within a one-mile radius of the Project area. A request is submitted to the USFWS Ohio Ecological Services Field Office to determine if federally-listed Threatened or Endangered species occur within the vicinity of the Project area in OH.

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 did not reveal NWI mapped wetlands within the Project Study area. One NWI mapped wetland, classified as a palustrine, unconsolidated bottom, intermittently exposed, excavated wetland (PUBGx) was identified outside of the Project Study area boundary. Field inspections confirmed that the PUBGx wetland does not enter the Project Study area (USFWS, 2017).

According to the USDA-NRCS soil mapping, three soil map units are located within the Project study area (Figure 2). One of these soil map units, Blount-Urban land complex, zero to two percent slopes, is classified as hydric.

3.1.2 Onsite Inspection

No wetlands were identified or delineated within the Project study area (Figure 2).

3.1.3 Regulatory Discussion

The USACE guidance divides waterbodies into three groups: Traditionally Navigable Waters (TNWs), non-navigable Relatively Permanent Waters (RPWs), and non-navigable Non-RPWs. TNWs are waterbodies that 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 consecutive months, but are not TNWs. Non-RPWs are waterbodies that do not flow continuously for at least three consecutive months, are not TNWs or RPWs, but typically exhibit characteristic beds, banks, and OHWM (USACE, 2007).

The status of wetlands is determined 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 are jurisdictional. Wetlands that are adjacent to 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 they are not associated with other surface water features, 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 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 OH Administrative Code (OAC) rules 3745-1-50 through 3745-1-54, wetlands were to be evaluated using the OH Rapid Assessment Method to determine the appropriate wetland category. A wetland score that falls within a gray zone between categories is scored one of two ways. Either the wetland was to be assigned to the higher of the two categories or be 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. No wetlands were identified or delineated within the Project study area.

3.2 Waterbodies

3.2.1 Preliminary Data Gathering

Desktop review of the available USGS topographic mapping did not reveal 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 watersheds categorized as “Eligible” for automatic 401 WQC coverage (Figure 3).

3.2.2 Onsite Inspection

No stream segments were identified or delineated within the Project study area (Figure 2).

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 on 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 assessed according to OEPA guidance using the Headwater Habitat Evaluation Index for watersheds less than one square mile in size, or the Qualitative Habitat Evaluation Index for watersheds between one and 20 square miles in size. No stream segments were identified or delineated within the Project study area.

3.3 Rare, Threatened, and Endangered Species

3.3.1 Preliminary Data Gathering

Desktop review of ODNR, Division of Wildlife's Ohio's Listed Species revealed 337 Endangered, Threatened, Species of Concern, and Species of Interest located in OH (ODNR, 2017). Eighteen of the state-listed species are considered federally endangered, and four 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 website revealed two federally Endangered or Threatened species that may occur within the Project study area in OH (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 four migratory bird species that may occur within the Project study area in OH.

The ODNR and USFWS consultation letters were submitted on August 28, 2020 and are provided in Appendix B. A response from USFWS was received on September 4, 2020. A response from ODNR has not been received. Agency coordination requests and the USFWS response are included in Appendix B.

The USFWS identified two bat species that may be present in vicinity of the Project. Potential impacts to these species will be determined by the schedule of Project construction and extent of tree clearing that is needed.

3.3.2 Onsite Inspection

A potential habitat for RTE species was evaluated within the Project study area. In general, the habitat encountered within the study area consisted of transmission line Right Of Way along a roadway and open field within an industrial and residential area. No streams or wetlands were identified within the study area. Representative photographs of the identified habitat types are included in Appendix A.

4.0 Conclusions

Ecological surveys were conducted within the Project study area on September 18, 2020. No streams or wetlands were identified within the Project study area. Maps of the Project location, study area, and stream eligibility are depicted on Figures 1, 2 and 3, respectively. Photographs of representative habitat types within the Project study area are included in Appendix A. Copies of Project review requests to the ODNR and USFWS and a response from USFWS regarding RTE species within the Project study area are included in Appendix B.

5.0 References

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TABLES

Table 1
ODNR RTE Species and Critical Habitat Review Results¹

Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Amphibians						
Eastern Cricket Frog	<i>Acris crepitans</i>	Weed-choked permanent ponds and streams.	SC	No	No; Known habitat types are not present within the Project area.	-
Bats						
Big Brown Bat	<i>Eptesicus fuscus</i>	Roost sites can be trees, caves, mines, and buildings.	SC	No	No; Known habitat types are not present within the Project area.	April 1 to September 30
Indiana Bat	<i>Myotis sodalis</i>	Trees greater than three inches dbh.	E, FE	No	No; Known habitat types are not present within the Project area.	April 1 to September 30
Little Brown Bat	<i>Myotis lucifugus</i>	Roost sites can be trees, rock crevices, caves, mines, and buildings.	SC	No	No; Known habitat types are not present within the Project area.	April 1 to September 30
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Roost sites can be trees, caves, and mines.	SC, FT	No	No; Known habitat types are not present within the Project area.	April 1 to September 30
Red Bat	<i>Lasiurus borealis</i>	Roost sites can be trees, shrubs, and clusters of herbaceous plants.	SC	No	No; Known habitat types are not present within the Project area.	April 1 to September 30
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	Roost sites can be trees, rock crevices, caves, and buildings.	SC	No	No; Known habitat types are not present within the Project area.	April 1 to September 30
Birds						
Upland Sandpiper	<i>Bartramia longicauda</i>	Nest in grasslands, pastures both grazed and ungrazed, and in agricultural fields, especially fallow fields, but sometimes hay or other crop fields.	E	No	No; Known habitat types are not present within the Project area.	-
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Dry upland habitats. Prefers tall-grass pastures such as hayfields, lightly grazed pastures, reclaimed strip mines, and fields bordering airports.	SC	No	No; Known habitat types are not present within the Project area.	-

Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Common Nighthawk	<i>Chordeiles minor</i>	Dry upland habitats. Prefers tall-grass habitats such as hayfields, lightly grazed pastures, reclaimed strip mines, and fields bordering airports.	SC	No	No; Known habitat types are not present within the Project area.	-
Sedge Wren	<i>Cistothorus platensis</i>	Nests in dense tall sedges and grasses in wet meadows, hayfields, and marshes.	SC	No	No; Known habitat types are not present within the Project area.	-
Bobolink	<i>Dolichonyx oryzivorus</i>	Large fields with a mixture of grasses and broad-leaved plants like legumes and dandelions.	SC	No	No; Known habitat types are not present within the Project area.	-
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Breed in deciduous woodlands with oak or beech, groves of dead or dying trees, river bottoms, burned areas, recent clearings, beaver swamps, orchards, parks, farmland, grasslands with scattered trees, forest edges, and roadsides.	SC	No	No; Known habitat types are not present within the Project area.	-
Vesper Sparrow	<i>Poocetes gramineus</i>	Open areas with short, sparse grass and scattered shrubs including old fields, pastures, weedy fence lines and roadsides, hayfields, and native grasslands.	SC	No	No; Known habitat types are not present within the Project area.	-
Cerulean Warbler	<i>Setophaga cerulea</i>	Large deciduous wooded tracts of at least 50 to 75 acres. Utilizes both interiors and edges of woodlands.	SC	No	No; Known habitat types are not present within the Project area.	-
American Black Duck	<i>Anas rubripes</i>	Freshwater wetlands, including beaver ponds, brooks lined by speckled alder, shallow lakes with reeds and sedges, bogs in boreal forests, and wooded swamps.	SI	No	No; Known habitat types are not present within the Project area.	-
Canada Warbler	<i>Cardellina canadensis</i>	Mixed conifer and deciduous forest with a shrubby and mossy understory often near water.	SI	No	No; Known habitat types are not present within the Project area.	-
Veery	<i>Catharus fuscescens</i>	Breeds in dense, damp, mostly deciduous woodlands, often near rivers, streams, and swampy areas. Prefers disturbed forests with dense understory. Favors forest edges and second-growth woodlands during migration.	SI	No	No; Known habitat types are not present within the Project area.	-

Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Hermit Thrush	<i>Catharus guttatus</i>	Conifer or mixed woods, thickets, and parks. Breeds in spruce woods, sphagnum bogs, dry pine woods, wooded canyons, second growth forests, mountain forests of spruce and fir. Migrates and winters in any kind of woodland.	SI	No	No; Known habitat types are not present within the Project area.	-
Brown Creeper	<i>Certhia americana</i>	Woodlands, groves, and shade trees. Breeds in mature forests, will utilize any habitat with at least a few large trees along migration routes.	SI	No	No; Known habitat types are not present within the Project area.	-
Dark-eyed Junco	<i>Junco hyemalis</i>	Hemlock gorges in the extreme northeastern corner of Ohio.	SI	No	No; Known habitat types are not present within the Project area.	-
Nashville Warbler	<i>Oreothlypis ruficapilla</i>	Open woodlands, often younger successional forests with brushy understory and along bog margins.	SI	No	No; Known habitat types are not present within the Project area.	-
Northern Waterthrush	<i>Parkesia noveboracensis</i>	Wet habitats with dense ground cover. They use wooded swamps, bogs, and thickets bordering all manner of wetlands.	SI	No	No; Known habitat types are not present within the Project area.	-
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Nest in deciduous and mixed forests, wooded bogs, conifer plantations, hemlock groves, cottonwood-willow forests, and groves in parks and cemeteries.	SI	No	No; Known habitat types are not present within the Project area.	-
Black-throated Blue Warbler	<i>Setophaga caerulescens</i>	Breed in large tracts of mature deciduous and mixed evergreen-deciduous woodlands with a thick understory of shrubs.	SI	No	No; Known habitat types are not present within the Project area.	-
Blackburnian Warbler	<i>Setophaga fusca</i>	Mature coniferous and mixed coniferous-deciduous forests.	SI	No	No; Known habitat types are not present within the Project area.	-
Magnolia Warbler	<i>Setophaga magnolia</i>	Large hemlock gorges. Breeds in boreal, coniferous forests, typically spruce-dominated woodlands.	SI	No	No; Known habitat types are not present within the Project area.	-
Red-breasted Nuthatch	<i>Sitta canadensis</i>	Deciduous woods, including aspen, birch, poplar, oak, maple, and basswood.	SI	No	No; Known habitat types are not present within the Project area.	-
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Young forests and edge habitat, especially areas regenerating from timber harvesting.	SI	No	No; Known habitat types are not present within the Project area.	-

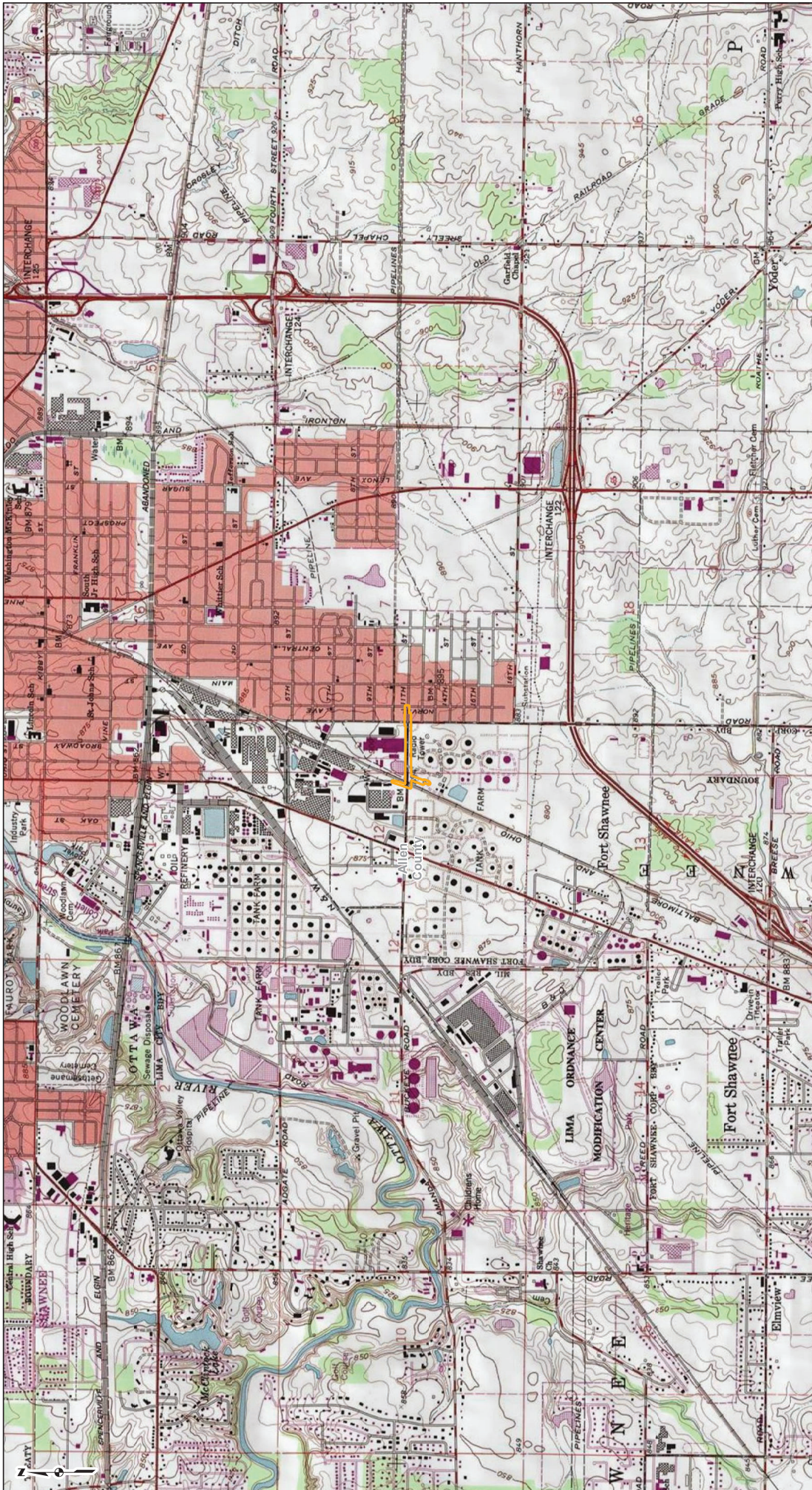
Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Winter Wren	<i>Troglodytes hiemalis</i>	Evergreen forests with spruce, fir, and hemlock as well as deciduous forests.	SI	No	No; Known habitat types are not present within the Project area.	-
Bell's Vireo	<i>Vireo bellii</i>	Dense shrubby or scrubby habitat, including brushy fields and early successional growth	SI	No	No; Known habitat types are not present within the Project area.	-
Blue-headed Vireo	<i>Vireo solitarius</i>	Wide variety of woodlands. Breeders prefer hemlock trees.	SI	No	No; Known habitat types are not present within the Project area.	-
Crayfish						
Northern Crayfish	<i>Orconectes virilis</i>	Streams with moderate flow and turbidity, abundant cover, muddy, sandy, or rocky substrate and stable water levels.	SC	No	No; Known habitat types are not present within the Project area.	-
Fish						
Pirate Perch	<i>Aphredoderus sayanus</i>	Clear warm water with low currents, for example bottomland lakes, overflow ponds and the quiet pools and backwaters of low-gradient streams.	E	No	No; Known habitat types are not present within the Project area.	-
Greater Redhorse	<i>Moxostoma valenciennesi</i>	Found in medium to large-sized rivers and occasionally lakes.	T	No	No; Known habitat types are not present within the Project area.	-
Western Creek Chubsucker	<i>Erimyzon claviformis</i>	Small clear prairie streams of moderate and high gradients.	SC	No	No; Known habitat types are not present within the Project area.	-
Least Darter	<i>Etheostoma microperca</i>	Clear freshwater streams and lakes, with cool to warm waters.	SC	No	No; Known habitat types are not present within the Project area.	-
Mammals						
Badger	<i>Taxidea taxus</i>	Grasslands, prefers those with short grasses such as fields or pastures.	SC	No	No; Known habitat types are not present within the Project area.	-
Mussels						
Northern Riffleshell	<i>Epioblasma rangiana</i>	Large streams and small rivers in firm sand of riffle areas; also occurs in Lake Erie.	E, FE	No	No; Known habitat types are not present within the Project area.	-

Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Clubshell	<i>Pleurobema clava</i>	Prefers clean, loose sand and gravel in medium to small rivers and streams.	E, FE	No	No; Known habitat types are not present within the Project area.	-
Purple Lilliput	<i>Toxolasma lividus</i>	Small to medium sized streams, and less often in large rivers and lakes. It occurs most often in well pack sand or gravel in water depths less than one mile.	E	No	No; Known habitat types are not present within the Project area.	-
Pondhorn	<i>Uniomerus tetralasmus</i>	Mud and sand of ponds, creeks, and headwaters of large streams.	T	No	No; Known habitat types are not present within the Project area.	-
Elktoe	<i>Alasmidonta marginata</i>	Small to large sized streams and small to medium rivers with clean, cool water. Prefers swifter currents over packed sand and gravel substrates.	SC	No	No; Known habitat types are not present within the Project area.	-
Purple Wartyback	<i>Cyclonaias tuberculata</i>	Larger rivers in areas with moderate current and gravel substrates.	SC	No	No; Known habitat types are not present within the Project area.	-
Wavy-rayed Lampmussel	<i>Lampsilis fasciola</i>	Small-medium sized shallow streams, in and near riffles, with good current. Substrate preference is sand and/or gravel.	SC	No	No; Known habitat types are not present within the Project area.	-
Creek Heelsplitter	<i>Lasmigona compressa</i>	Creeks, small rivers, and the upstream portions of large rivers. Prefers substrates are sand, fine gravel, and mud.	SC	No	No; Known habitat types are not present within the Project area.	-
Deertoe	<i>Truncilla truncata</i>	Firm sand or gravel substrates in rivers and lakes with a moderately swift current.	SC	No	No; Known habitat types are not present within the Project area.	-
Plants						
Rock elm	<i>Ulmus thomasii</i>	Moist, well-drained sandy loam, loam, or silt loam mixed with other hardwoods. Also found on dry uplands, especially rocky ridges and limestone bluffs.	P	No	No	-

Notes:

- ¹ Results are based on the State Listed Species list(s) for Athens County and will be updated once the ODNR response is received.
- ² E = state endangered; T = state threatened; SC = state species of concern; FE = federal endangered; FT = federal threatened; FSC = federal species of concern; FC = federal candidate, EX = state extirpated; SI = special interest; P = potentially threatened.

FIGURES



REFERENCE: USGS 7.5 TOPOGRAPHIC QUADRANGLES: CRODERSVILLE (1884) AND LIMA (1884), OHIO, OBTAINED FROM THE NATIONAL ARCHIVES, NATIONAL GEOSPATIAL ARCHIVE, GEOGRAPHIC TOPO AND USGS, ACCESSSED 10/20/20.

PROJECT LOCATION

LEGEND
Study Area



FIGURE 1
PROJECT LOCATION MAP

LIMA PUMPING EXTENSION
REBUILD PROJECT
AMERICAN ELECTRIC POWER

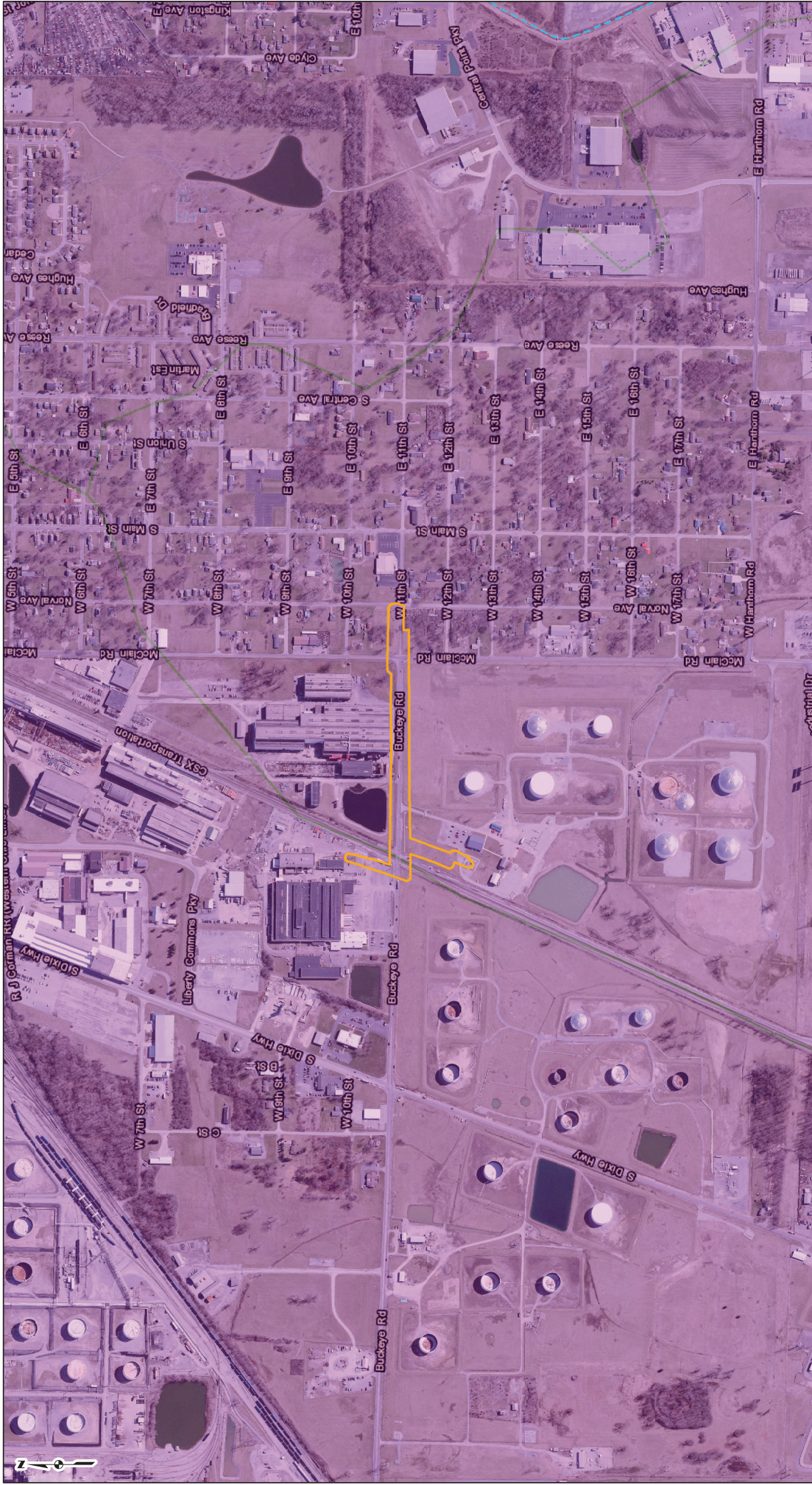


DRAWN BY: KJB
CHECKED: EFJ

DATE: 10/2/2020
APPROVED:

ALLEN COUNTY, OHIO

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PROJECT LOCATION



ALLEN COUNTY, OHIO

REFERENCE: OHIO STATE IMAGERY PROGRAM (OSIP), 2016 TRANSPORTATION AND ACCESSIBILITY (TAP) DATA, 2017; OHIO DEPARTMENT OF TRANSPORTATION (ODOT), 2017; U.S. GEOLOGICAL SURVEY (USGS), 2018; STREAM ELIGIBILITY, OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA), 2017; WQS STREAMS, OHIO WATER QUALITY STANDARDS, 2010.

LEGEND

- Study Area
- NHD Stream
- OH WQS Stream
- Eligible
- Ineligible
- Possibly Eligible



FIGURE 3
STREAM ELIGIBILITY MAP

LIMA PUMPING EXTENSION
REBUILD PROJECT
AMERICAN ELECTRIC POWER

DRAWN BY: KJB DATE: 10/2/2020
CHECKED: EFJ APPROVED:

APPENDIX A

Photographs



Photograph 1. Representative Upland habitat, Facing Southeast.



Photograph 2. Representative Upland habitat, Facing Southeast.



Photograph 3. Representative Upland habitat, Facing Southwest.



Photograph 4. Representative Upland habitat, Facing Northeast.



Photograph 5. Representative Upland habitat, Facing Northeast.



Photograph 6. Representative Upland habitat, Facing Northeast.

APPENDIX B

Agency Coordination

Elizabeth Dubnicay

From: Ohio, FW3 <ohio@fws.gov>
Sent: Friday, September 4, 2020 3:23 PM
To: Kristen Vonderwish
Cc: Joshua Noble
Subject: AEP- Lima Pumping Extension Rebuild Project located in Allen County, Ohio

EXERCISE CAUTION: This is an External Email Message!

****Think before clicking on links, opening attachments, or responding****



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# 03E15000-2020-TA-2249

Dear Ms. Vonderwish,

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

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found 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 breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet 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, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal 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 removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is 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, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field 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.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then 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 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. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

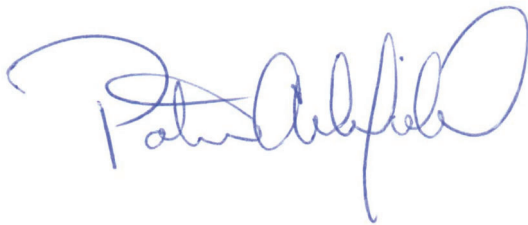
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army 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. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or 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, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@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 Ashfield
Ohio Field Office Supervisor



Canton Office
3720 Dressler Road Northwest
Canton, Ohio 44718

T 330.433.2680
F 330.433.2694

August 28, 2020
Project R200062.11

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
Lima Pumping Extension Rebuild Project
Request for Technical Assistance Regarding Threatened
and Endangered Species and Critical Habitat
Allen 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 Lima Pumping Extension Rebuild Project (Project) in Allen 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 involves rebuilding and the relocation of the Lima Pumping Extension line asset (0.4-mile) and Excello Extension line asset (0.1-mile) to 69 kilovolt (kV) standards (currently operated at 34.5 kV). The Project also includes the rebuilding of Structures 2 and 3 along the Sterling-Foundary 138 kV line) to provide the necessary clearance above the rebuilt and relocated Lima Pumping Extension Line asset.

The study area for the Project is shown on the attached map (Figure 1). The habitat within the study area consists of urban and residential areas and open field. 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.

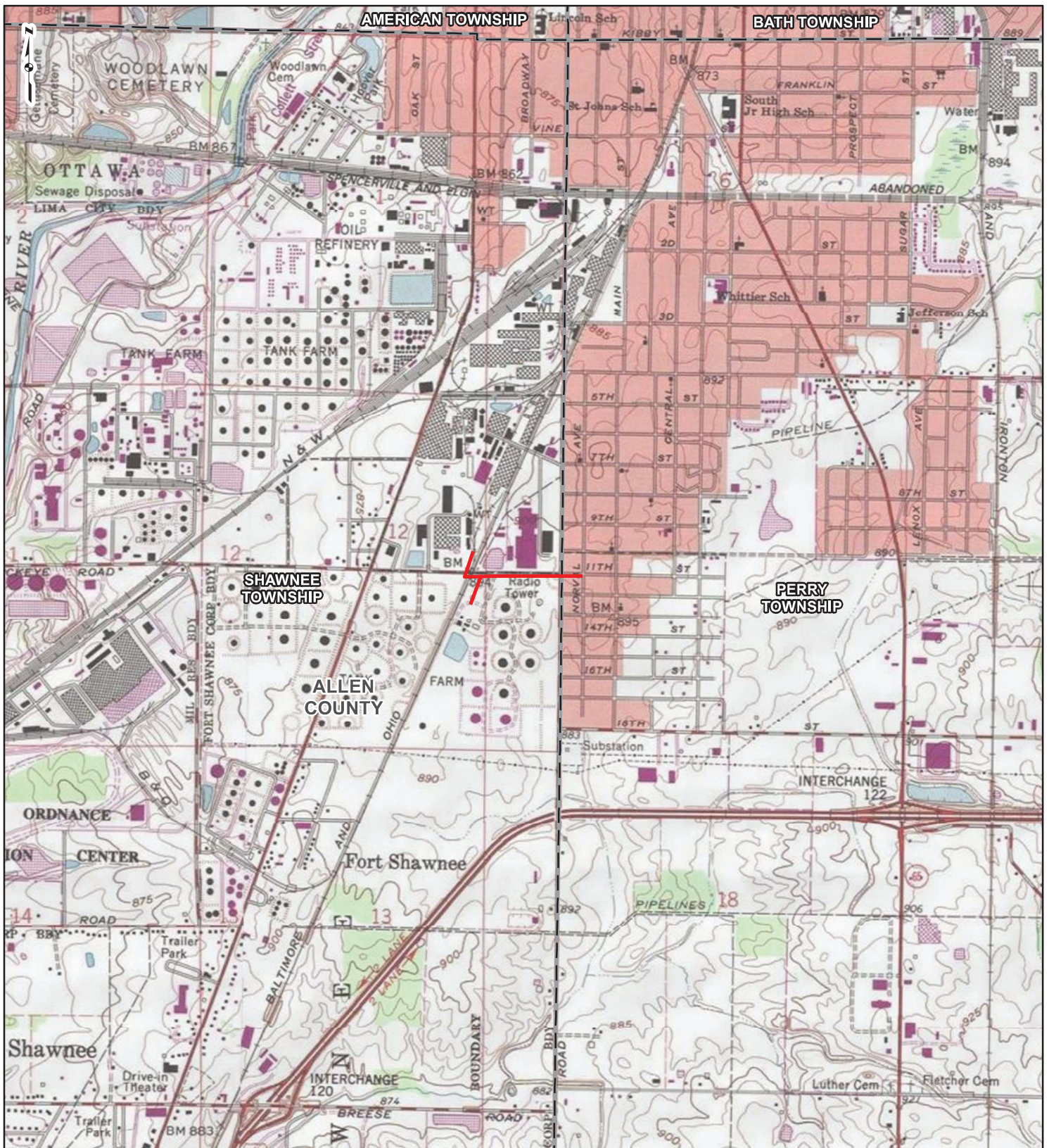
Sincerely,
GAI Consultants, Inc.

Kristen L. Vonderwish
 Digitally signed by Kristen L. Vonderwish
DN:
E=k.vonderwish@gaiconsultants.com,
O=GAI Consultants, Inc.,
Date: 2020.08.28 10:31:14-0400

Kristen L. Vonderwish
Project Environmental Specialist

Attachments: Attachment 1 (Project Location Map)
Project Shapefiles

ATTACHMENT 1
PROJECT LOCATION MAP



PROJECT LOCATION



ALLEN COUNTY, OHIO

LEGEND

- Proposed Transmission Line
- Township Boundary

0 1,000 2,000 4,000 Feet

PROJECT LOCATION MAP

**LIMA PUMPING EXTENSION
REBUILD PROJECT
AMERICAN ELECTRIC POWER**

DRAWN BY: EFJ

DATE: 8/27/2020

CHECKED:

APPROVED:

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: LIMA (1984) AND CRIDERSVILLE (1984), OHIO, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 08/2020.

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW



Canton Office
3720 Dressler Road Northwest
Canton, Ohio 44718

T 330.433.2680
F 330.433.2694

August 28, 2020
Project R200062.11

Environmental Review Staff
Ohio Department of Natural Resources
Division of Wildlife - Ohio Natural Heritage Program
2045 Morse Road, Building G-3
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Lima Pumping Extension Rebuild Project
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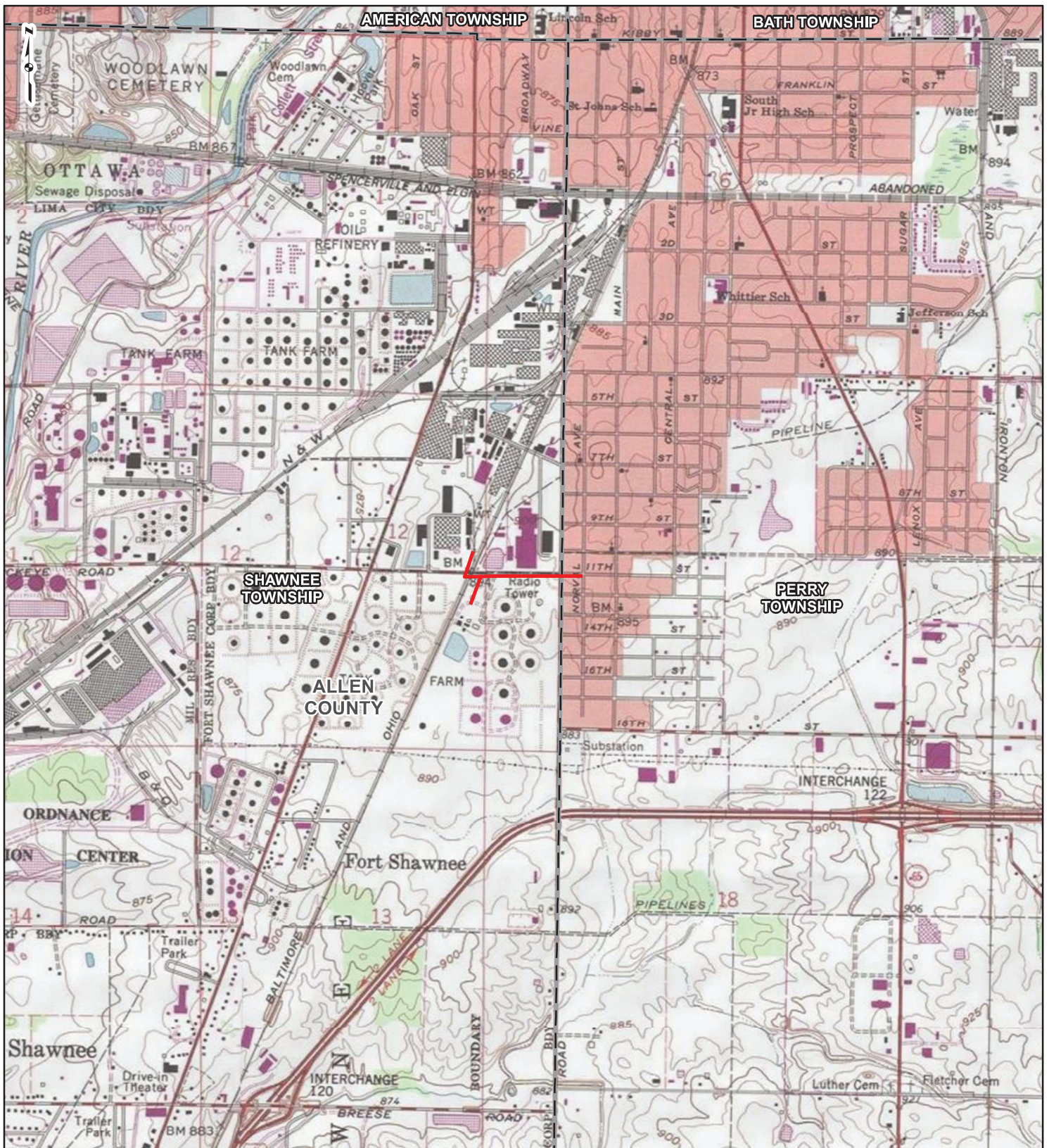
Sincerely,
GAI Consultants, Inc.

Kristen L. Vonderwish
 Digitally signed by Kristen L. Vonderwish
DN:
E=k.vonderwish@gaiconsultants.com,
O=GAI Consultants, Inc.,
Date: 2020.08.28 10:31:14-0400

Kristen L. Vonderwish
Project Environmental Specialist

Attachments: Attachment 1 (Project Location Map)
Project Shapefiles

ATTACHMENT 1
PROJECT LOCATION MAP



PROJECT LOCATION



ALLEN COUNTY, OHIO

LEGEND

- Proposed Transmission Line
- Township Boundary

0 1,000 2,000 4,000 Feet

PROJECT LOCATION MAP

**LIMA PUMPING EXTENSION
REBUILD PROJECT
AMERICAN ELECTRIC POWER**

DRAWN BY: EFJ

DATE: 8/27/2020

CHECKED:

APPROVED:

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: LIMA (1984) AND CRIDERSVILLE (1984), OHIO, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 08/2020.



Canton Office
3720 Dressler Road Northwest
Canton, Ohio 44718

T 330.433.2680
F 330.433.2694

June 3, 2021

Project R200062.25

Ms. Shannon Hemmerly
Environmental Specialist - Senior
American Electric Power Company
8600 Smiths Mill Road
New Albany, Ohio 43054

**Wetland Delineation and Stream Identification
Addendum No. 1 Letter Report
Lima Pumping Extension/Sterling-Foundry Park/Excello Rebuild Project
Allen County, Ohio**

Dear Ms. Hemmerly:

On September 18, 2020, and December 9, 2020, GAI Consultants, Inc. (GAI) conducted a preliminary wetland and stream study on behalf of American Electric Power (AEP) for the Lima Pumping Extension 69 kilovolt (kV), Sterling-Foundry Park 138 kV, and Excello 69 kV Rebuild Projects (Project) in Allen County, Ohio (OH). An Ecological Survey Report (ESR) was provided to AEP in October 2020. The ESR included the methods and results of the field study. No resources were identified for either of the first two field reviews.

As AEP developed construction plans for the Project, a subsequent field review was needed to locate sensitive resources in the expanded areas of the Project's footprint. A supplemental wetland and stream study was conducted on area on June 2, 2021. One palustrine emergent (PEM) wetland was identified within the expanded study area shown on the Resource Location Map (Attachment 1).

Mapping depicting the newly studied areas and delineated feature are included as Attachment 1. Data collected on the newly wetland is included in Attachment 2 (Table 1). Photographs of the wetland and upland sample points are included in Attachment 3. The United States Army Corps of Engineers (USACE) Wetland Determination Data Forms documenting the wetland area and corresponding upland area are provided in Attachment 3. Ohio Rapid Assessment Method (ORAM) data forms are provided in Attachment 4.

We appreciate working with you on this Project. If you have any questions or need additional information, please contact me at 330.323.1894 or j.noble@gaiconsultants.com.

Sincerely,
GAI Consultants, Inc.

Joshua J. Noble
Senior Environmental Manager

Attachments: Attachment 1 - Project Mapping

Attachment 2 – Table 1

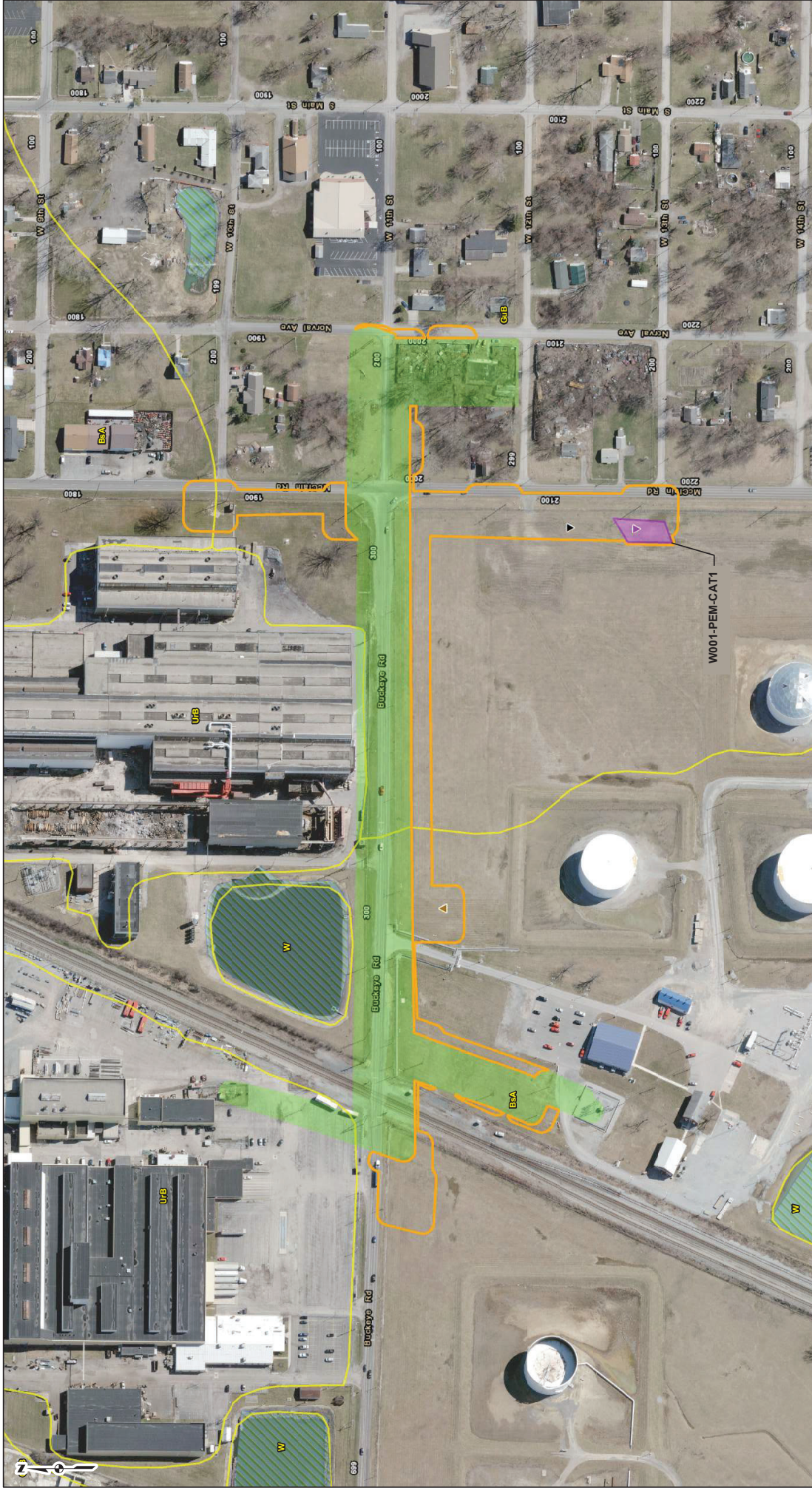
Attachment 3 – Photographic Log

Attachment 4 – Wetland Determination Data Forms

Attachment 5 – ORAM Forms

Ms. Shannon Hemmerly
June 3, 2021
Project R200062.25

ATTACHMENT 1
PROJECT MAPPING



PROJECT LOCATION



ALLEN COUNTY, OHIO

REFERENCE: OHIO STATE IMAGERY PROGRAM (OSIP), 2018; TRANSPORTATION ARCHIVES ONLINE (ACCESSIBLE STREAMS), USGS, 2020; NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2020; SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2020; NATIONAL FLOOD HAZARD LAYER, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), OHIO, 2020.

LEGEND

- Upland Data Point
- Wetland Data Point
- Soil Test Pit
- Wetland
- Additional Study Area
- Previously Studied
- NHD Stream
- Soil Type Boundary
- NWI Wetland
- FEMA Floodplain

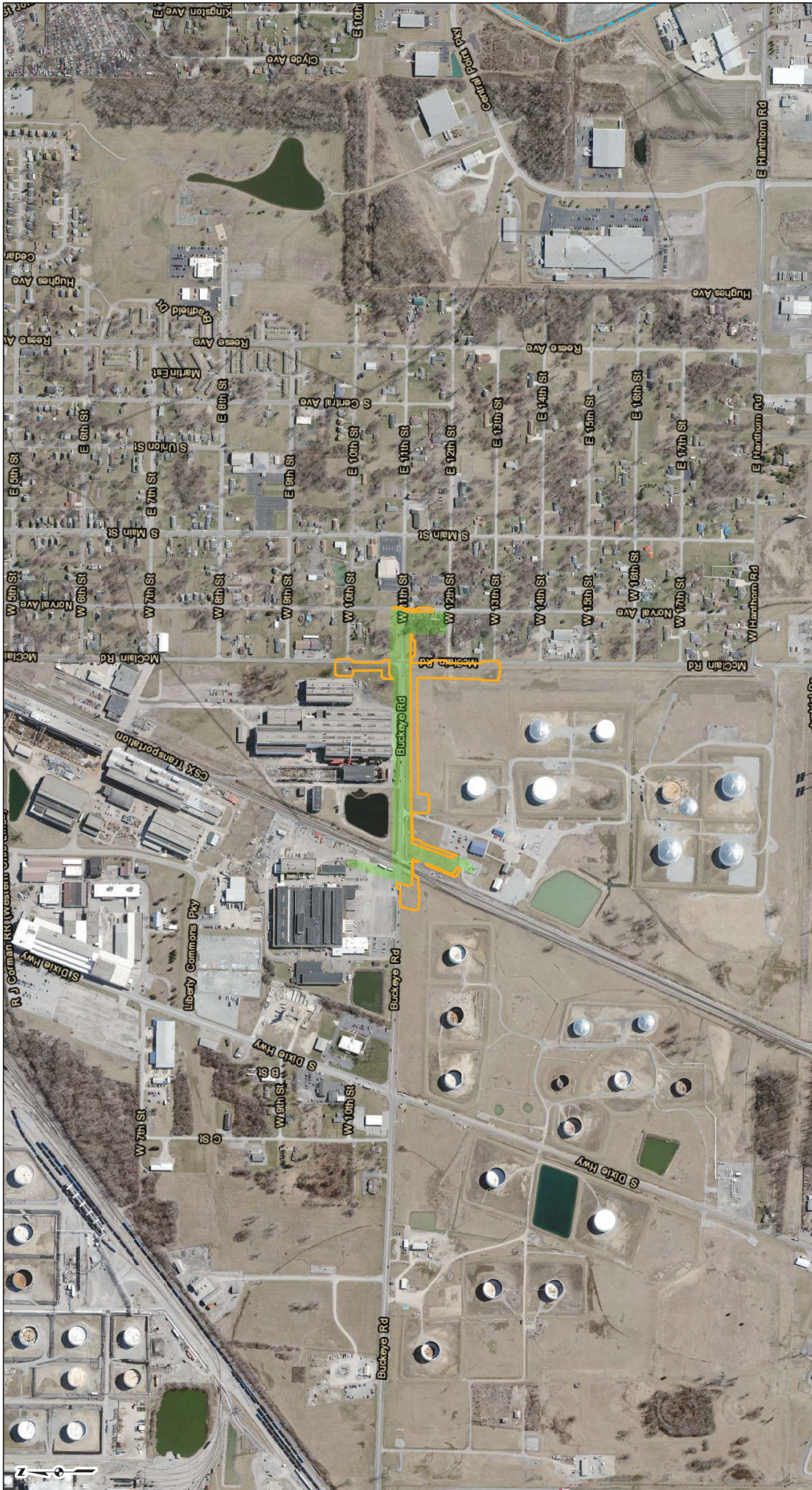
FIGURE 2 RESOURCE LOCATION MAP

LIMA PUMPING EXTENSION
REBUILD PROJECT
AMERICAN ELECTRIC POWER



DRAWN BY: KJT
CHECKED: EFJ
DATE: 6/3/2021
APPROVED:

G:\R20006211 - GIS\MXD\WDSR\Addendum\Fig_2_Resource_Location_2021_06_03.mxd



PROJECT LOCATION



ALLEN COUNTY, OHIO

REFERENCE: OHIO STATE IMAGERY PROGRAM (OSIP), 2016 TRANSPORTATION ACCESS ONLINE, ACCESSSED 12/21/2021, DOI, 2020, STREAM ELIGIBILITY, OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA), 2017, WQS STREAMS, OHIO WATER QUALITY STANDARDS, 2010.

LEGEND

- Additional Study Area
- Previously Studied
- OH WQS Stream
- NHD Stream

OH EPA Stream Eligibility:

- Eligible
- Ineligible
- Possibly Eligible

FIGURE 3 STREAM ELIGIBILITY MAP



LIMA PUMPING EXTENSION
REBUILD PROJECT
AMERICAN ELECTRIC POWER

DRAWN BY: KJT
CHECKED: EFJ

DATE: 6/3/2021
APPROVED:

G:\R200062_11 - GIS\MXD\WDS\RA\Addendum\Fig_3_Stream_Eligibility_2021_06_03.mxd

ATTACHMENT 2

TABLE 1

Table 1
Wetlands Identified Within the Project Study Area

Wetland ID ¹	Location		Isolated?	Habitat Type ³	Delineated Area (acre) ⁴	ORAM		Nearest Structure # (Existing / Proposed)	Existing Structure # in Wetland	Proposed Structure # in Wetland	Structure Installation Method	Proposed Impacts	
	Latitude ²	Longitude ²				Score ⁵	Category ⁶					Temporary Mating Area (acre)	Permanent Impact Area (acre)
W001-PEM-CAT1	40.706923	-84.108611	No	PEM	0.11	17	1	9 / 9	N/A	N/A	N/A	0	0
Total:					0.11				Total:				
									0				

Notes:

- ¹ GAI map designation.
- ² North American Datum, 1983.
- ³ PEM - Palustrine Emergent.
- ⁴ Total acreage of wetland located within the Project study area.
- ⁵ Interim scoring breakpoints for wetland regulatory categories for ORAM v 5.0 Score: Category 1 score 0 - 29.9; Category 1 or 2 gray zone ORAM score 30 - 34.9; Category modified 2 ORAM score 35 - 44.9; Category 2 ORAM score 45 - 59.9; Category 2 or 3 ORAM score 60 - 64.9; Category 3 ORAM score 65 - 100. OEPA Ecology Unit Division of Surface Water. ORAM v. 5.0 *Qualitative Score Calibration*. Dated August 15, 2000. http://www.epa.ohio.gov/portals/35/401/oram50sc_s.pdf.
- ⁶ OAC Rule 3745-1-54(C)(2) defines Category 1 wetlands as wetlands which "...support minimal wildlife habitat, and minimal hydrological and recreation functions," and as wetlands which have "...hydrologic isolation, low species diversity, a predominance of non-native species, no significant habitat or wildlife use, and limited potential to achieve beneficial wetland functions." Category 2 wetlands are defined as wetlands which "...support moderate wildlife habitat, or hydrological or recreational functions," and as wetlands which are "...dominated by native species but generally without the presence of, or habitat for, rare, threatened or endangered species; and wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions." Degraded but Restorable Category 2 Wetlands are according to OAC Rule 3745-1-54(C) states that wetlands that are assigned to Category 2 constitute the broad middle category that "...support moderate wildlife habitat, or hydrological or recreational functions," but also include "...wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions." OAC Rule 3745-1-54(C)(2) defines Category 3 wetlands as wetlands which "...support superior habitat, or hydrological or recreational functions," and as wetlands which have "...high levels of diversity, a high proportion of native species, or high functional values."

Ms. Shannon Hemmerly
June 3, 2021
Project R200062.25

ATTACHMENT 3
PHOTOGRAPHIC LOG



Photograph 1. Wetland W001-PEM-CAT1, Facing North



Photograph 2. Wetland W001-PEM-CAT1, Facing South



Photograph 3. Wetland W001-PEM-CAT1, Facing East



Photograph 4. Wetland W001-PEM-CAT1, Facing West



Photograph 5. Upland sample point, Facing North



Photograph 6. Upland sample point, Facing South

Ms. Shannon Hemmerly
June 3, 2021
Project R200062.25

ATTACHMENT 4
WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lima Pumping Extension City/County: Lima / Allen Sampling Date: 06/01/2021
Applicant/Owner: AEP State: OH Sampling Point: W001
Investigator(s): J Polonoli Section, Township, Range: _____
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR or MLRA): LRRL Lat: 40.706923 Long: -84.108611 Datum: WGS84
Soil Map Unit Name: Glynwood-Urban land complex, 2-6% (GuB) NWI classification: n/a

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

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

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____
Wetland Hydrology Present?	Yes <u>X</u>	No _____

Is the Sampled Area
within a Wetland? Yes X No _____

Remarks:

W001-PEM-CAT1

Wetland is in a maintained lawn in an industrial area. Vegetation is resitrccted to lawn and field grasses and is regularly mowed.

HYDROLOGY**Wetland Hydrology Indicators:**

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

- | | |
|---|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input checked="" type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Iron Deposits (B5) | |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |
| <input type="checkbox"/> Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

- | |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes X No _____ Depth (inches): 6
(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Saturated soils due to recent precipitation.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W001

Tree Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)														
Sapling/Shrub Stratum (Plot size: <u>n/a</u>)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>1</u></td> <td>x 1 = <u>1</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td>x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>2</u></td> <td>x 3 = <u>6</u></td> </tr> <tr> <td>FACU species <u>1</u></td> <td>x 4 = <u>4</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>5</u> (A)</td> <td><u>13</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.6</u>	Total % Cover of:	Multiply by:	OBL species <u>1</u>	x 1 = <u>1</u>	FACW species <u>1</u>	x 2 = <u>2</u>	FAC species <u>2</u>	x 3 = <u>6</u>	FACU species <u>1</u>	x 4 = <u>4</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>5</u> (A)	<u>13</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>1</u>	x 1 = <u>1</u>																	
FACW species <u>1</u>	x 2 = <u>2</u>																	
FAC species <u>2</u>	x 3 = <u>6</u>																	
FACU species <u>1</u>	x 4 = <u>4</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>5</u> (A)	<u>13</u> (B)																	
Herb Stratum (Plot size: <u>5' rad</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Scirpus atrovirens</u>	25	Y	OBL	¹ Indicators 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.														
2. <u>Juncus tenuis</u>	20	Y	FAC															
3. <u>Dactylis glomerata</u>	20	Y	FACU															
4. <u>Lysmachia numularia</u>	20	Y	FACW															
5. <u>Echinochloa crus-gallii</u>	15	N	FAC															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>100</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____																		
Woody Vine Stratum (Plot size: <u>n/a</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____														
<u>0</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: W001

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

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

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)

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | Dark Surface (S7) |
| <input type="checkbox"/> | Polyvalue Below Surface (S8) (MLRA 147, 148) |
| <input type="checkbox"/> | Thin Dark Surface (S9) (MLRA 147, 148) |
| <input type="checkbox"/> | Loamy Gleyed Matrix (F2) |
| <input checked="" type="checkbox"/> | Depleted Matrix (F3) |
| <input type="checkbox"/> | Redox Dark Surface (F6) |
| <input type="checkbox"/> | Depleted Dark Surface (F7) |
| <input checked="" type="checkbox"/> | Redox Depressions (F8) |
| <input type="checkbox"/> | Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| <input type="checkbox"/> | Umbria Surface (F13) (MLRA 136, 122) |
| <input type="checkbox"/> | Piedmont Floodplain Soils (F19) (MLRA 148) |
| <input type="checkbox"/> | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- | | |
|--|-----------------------------------|
| | 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) |

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks: Soils compacted by frequent mowing activities.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lima Pumping Extension City/County: Lima / Allen Sampling Date: 06/01/2021
Applicant/Owner: AEP State: OH Sampling Point: UPL1
Investigator(s): J Polonoli Section, Township, Range: _____
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR or MLRA): LRRL Lat: 40.706981 Long: -84.109029 Datum: WGS84
Soil Map Unit Name: Glynwood-Urban land complex, 2-6% (GuB) NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No X
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area
within a Wetland? Yes _____ No X

Remarks:

Upland Point 1

Area is in a maintained lawn in an industrial area. Vegetation is resitrccted to lawn and field grasses and is regularly mowed.

HYDROLOGY**Wetland Hydrology Indicators:**

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

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Iron Deposits (B5) | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |
| <input type="checkbox"/> Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

- | |
|--|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Soils are maintaining a level of moisture due to recent precipitation, yet much less than adjacent wetland.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: UPL1

Tree Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td>x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species <u>3</u></td> <td>x 4 = <u>12</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>5</u> (A)</td> <td><u>17</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.4</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>1</u>	x 2 = <u>2</u>	FAC species <u>1</u>	x 3 = <u>3</u>	FACU species <u>3</u>	x 4 = <u>12</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>5</u> (A)	<u>17</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>1</u>	x 2 = <u>2</u>																	
FAC species <u>1</u>	x 3 = <u>3</u>																	
FACU species <u>3</u>	x 4 = <u>12</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>5</u> (A)	<u>17</u> (B)																	
<u>0</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: <u>n/a</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>0</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: <u>5' rad</u>)																		
1. <u>Dactylis glomerata</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Echinochloa crus-gallii</u>	<u>15</u>	<u>N</u>	<u>FAC</u>															
3. <u>Trifolium pratense</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Lysmachia numularia</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
5. <u>Trifolium repens</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>100</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____																		
Woody Vine Stratum (Plot size: <u>n/a</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>0</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

Hydrophytic Vegetation Present?
 Yes _____ No X

SOIL

Sampling Point: UPL1

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

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

Hydric Soil Indicators:

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Histosol (A1) |
| <input type="checkbox"/> | Histic Epipedon (A2) |
| <input type="checkbox"/> | Black Histic (A3) |
| <input type="checkbox"/> | Hydrogen Sulfide (A4) |
| <input type="checkbox"/> | Stratified Layers (A5) |
| <input type="checkbox"/> | 2 cm Muck (A10) (LRR N) |
| <input type="checkbox"/> | Depleted Below Dark Surface (A11) |
| <input type="checkbox"/> | Thick Dark Surface (A12) |
| <input type="checkbox"/> | Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) |
| <input type="checkbox"/> | Sandy Gleyed Matrix (S4) |
| <input type="checkbox"/> | Sandy Redox (S5) |
| <input type="checkbox"/> | Stripped Matrix (S6) |

- | | |
|---|--|
|  | Dark Surface (S7) |
|  | Polyvalue 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-Manganase Masses (F12) (LRR N,
MLRA 136) |
|  | Umbria Surface (F13) (MLRA 136, 122) |
|  | Piedmont Floodplain Soils (F19) (MLRA 148) |
|  | Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils³:

- | | |
|--------------------------|-------------------------------------|
| <input type="checkbox"/> | 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> | Coast Prairie Redox (A16) |
| <input type="checkbox"/> | (MLRA 147, 148) |
| <input type="checkbox"/> | Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> | (MLRA 136, 147) |
| <input type="checkbox"/> | Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> | Other (Explain in Remarks) |

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Soils compacted by frequent mowing activities.

Ms. Shannon Hemmerly
June 3, 2021
Project R200062.25

ATTACHMENT 5

OHIO RAPID ASSESSMENT METHOD FOR WETLANDS (ORAM) DATA FORMS

Name of Wetland: W001-PEM-CAT1	
Wetland Size (acres, hectares):	0.11 acre
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <p>North</p> </div> <div>  </div> </div>	
Comments, Narrative Discussion, Justification of Category Changes: None.	
Final score : 17	Category: 1

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	X	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	X	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	<input checked="" type="radio"/> NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	<input checked="" type="radio"/> NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	<input checked="" type="radio"/> NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	<input checked="" type="radio"/> NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	<input checked="" type="radio"/> NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	<input checked="" type="radio"/> NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	<input checked="" type="radio"/> NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	<input checked="" type="radio"/> NO Go to Question 8b

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
<i>Lythrum salicaria</i>	<i>Zygadenus elegans</i> var. <i>glaucus</i>	<i>Calla palustris</i>	<i>Carex cryptolepis</i>	<i>Calamagrostis canadensis</i>
<i>Myriophyllum spicatum</i>	<i>Cacalia plantaginea</i>	<i>Carex atlantica</i> var. <i>capillacea</i>	<i>Carex lasiocarpa</i>	<i>Calamagrostis stricta</i>
<i>Najas minor</i>	<i>Carex flava</i>	<i>Carex echinata</i>	<i>Carex stricta</i>	<i>Carex atherodes</i>
<i>Phalaris arundinacea</i>	<i>Carex sterilis</i>	<i>Carex oligosperma</i>	<i>Cladium mariscoides</i>	<i>Carex buxbaumii</i>
<i>Phragmites australis</i>	<i>Carex stricta</i>	<i>Carex trisperma</i>	<i>Calamagrostis stricta</i>	<i>Carex pellita</i>
<i>Potamogeton crispus</i>	<i>Deschampsia caespitosa</i>	<i>Chamaedaphne calyculata</i>	<i>Calamagrostis canadensis</i>	<i>Carex sartwellii</i>
<i>Ranunculus ficaria</i>	<i>Eleocharis rostellata</i>	<i>Decodon verticillatus</i>	<i>Quercus palustris</i>	<i>Gentiana andrewsii</i>
<i>Rhamnus frangula</i>	<i>Eriophorum viridicarinatum</i>	<i>Eriophorum virginicum</i>		<i>Helianthus grosseserratus</i>
<i>Typha angustifolia</i>	<i>Gentianopsis</i> spp.	<i>Larix laricina</i>		<i>Liatris spicata</i>
<i>Typha xglauca</i>	<i>Lobelia kalmii</i>	<i>Nemopanthus mucronatus</i>		<i>Lysimachia quadriflora</i>
	<i>Parnassia glauca</i>	<i>Scheuchzeria palustris</i>		<i>Lythrum alatum</i>
	<i>Potentilla fruticosa</i>	<i>Sphagnum</i> spp.		<i>Pycnanthemum virginianum</i>
	<i>Rhamnus alnifolia</i>	<i>Vaccinium macrocarpon</i>		<i>Silphium terebinthinaceum</i>
	<i>Rhynchospora capillacea</i>	<i>Vaccinium corymbosum</i>		<i>Sorghastrum nutans</i>
	<i>Salix candida</i>	<i>Vaccinium oxycoccos</i>		<i>Spartina pectinata</i>
	<i>Salix myricoides</i>	<i>Woodwardia virginica</i>		<i>Solidago riddellii</i>
	<i>Salix serissima</i>	<i>Xyris difformis</i>		
	<i>Solidago ohioensis</i>			
	<i>Tofieldia glutinosa</i>			
	<i>Triglochin maritimum</i>			
	<i>Triglochin palustre</i>			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Lima Pumping Ext	Rater(s): J Noble / J Polonoli	Date: 06/01/21
-------------------------------	---------------------------------------	-----------------------

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3 pts)
- ☐ 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

4	5
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☒ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

5	10
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☐ Recovered (7)
- ☐ Recovering (3)
- ☒ Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☐ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☒ Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☒ Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input	<input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____

4	14
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)
- ☐ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☐ Poor to fair (2)
- ☒ Poor (1)

4c. Habitat alteration. Score one or double check and average.

- ☐ None or none apparent (9)
- ☐ Recovered (6)
- ☐ Recovering (3)
- ☒ Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants	<input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment

14
subtotal this page

Site: Lima Pumping Ext	Rater(s): J Noble / J Polonoli	Date: 06/01/21
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14

subtotal first page

0	14
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max 10 pts.

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3	17
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max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☒ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high(4)
- ☐ Moderate (3)
- ☒ Moderately low (2)
- ☐ Low (1)
- ☐ None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☒ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ 0 Vegetated hummocks/tussocks
- ☐ 0 Coarse woody debris >15cm (6in)
- ☐ 0 Standing dead >25cm (10in) dbh
- ☐ 0 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1. Critical Habitat	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES <input checked="" type="radio"/> NO	If yes, Category 1.
	Question 6. Bogs	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 7. Fens	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES <input checked="" type="radio"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES <input checked="" type="radio"/> NO	If yes, Category 3
Question 11. Relict Wet Prairies	YES <input checked="" type="radio"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.	
Quantitative Rating	Metric 1. Size	1	
	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	5	
	Metric 4. Habitat	4	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersions, microtopography	3	
	TOTAL SCORE	17	Category based on score breakpoints CAT1

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	<input checked="" type="radio"/> NO Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="radio"/> NO Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	<input checked="" type="radio"/> NO Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	<input checked="" type="radio"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input type="radio"/> NO If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input checked="" type="radio"/> NO Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	<input checked="" type="radio"/> NO Wetland is assigned to category as determined by the ORAM. A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category			
Choose one	<input checked="" type="radio"/> Category 1	<input type="radio"/> Category 2	<input type="radio"/> Category 3

End of Ohio Rapid Assessment Method for Wetlands.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

6/9/2021 11:47:39 AM

in

Case No(s). 21-0590-EL-BLN

Summary: Notice LON for the Sterling – Foundry Park 138kV Line Raise Project
electronically filed by Ms. Christen M. Blend on behalf of Ohio Power Company