

Letter of Notification Southwest Lima Station Expansion and Southwest Lima – West Moulton 138 kV Line Adjustment Project



PUCO Case No. 22-0116-EL-BLN

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

Submitted by:
Ohio Power Company

March 1, 2022

**Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton
138 kV Line Adjustment Project**

Letter of Notification

Ohio Power Company

**Southwest Lima Station Expansion and Southwest Moulton – West Moulton 138 kV Line
Adjustment Project**

4906-6-05

Ohio Power Company (the “Company”) provides the following information in accordance with the requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-5(B) General Information

B(1) Project Description

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

The Company proposes the Southwest Lima Station Expansion and Southwest Lima – West Moulton 138 kV Line Adjustment Project (“Project”), which is located in Shawnee Township, Allen County, Ohio. The Project includes expanding the existing Southwest Lima Station for construction of a new perimeter fence and inner fence system. The existing 10-acre fenced area is located on an approximate 53-acre property owned by the Company. The Project will expand the total fenced station area by less than 2 acres. The Project also includes the relocation of the Southwest Lima- West Moulton 138 kV transmission line from the east side of Sellers Road to the west side of Sellers Road for approximately 0.3 mile, to accommodate the station fence expansion.

Figures 1 and Figures 2, included in **Appendix A**, show the location of the Project in relation to the surrounding vicinity.

The Project meets the requirements for a Letter of Notification (LON) because it is within the types of projects defined by item 4(a) of Ohio Administrative Code Section 4906-1-01 Appendix A of the 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:

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

4 Construction additions to existing electric power transmission stations or converting distribution stations to transmission stations where:

a. There is a twenty percent or less expansion of the fenced area.

The Project has been assigned PUCO Case No. 22-0116-EL-BLN

Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton 138 kV Line Adjustment Project

B(2) Statement of Need

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

Under Ohio Administrative Code Section 4906-6-05(B)(2) a statement of need is not necessary for this type of station expansion project, as it applies only to electric power, gas, and natural gas transmission lines. Nonetheless, this Project is necessary to enable the Company to add equipment and infrastructure that will bring the Southwest Lima Station up to current resiliency, safety, operational performance, and North American Electric Reliability Corporation (NERC) reliability standards. As this Project results in no operational, modeling, or topology change, the Project will not be included in the PJM Regional Transmission Expansion Plan. PJM is, however, aware of the Project and has been consulted regarding it. This Project is also not included in Form FE-T10 of AEP Ohio's or AEP Ohio Transco's 2021 Long-Term Forecast Reports because Southwest Lima Station is an existing substation. Southwest Lima Station was included as an existing substation in AEP Ohio's 2021 Form FE-T8, on page 74 of 139.

B(3) Project Location

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

The location of the Project in relation to existing and proposed transmission lines and substations is shown on **Figure 1**.

The Project directly impacts the following existing facilities:

Southwest Lima 345 kV Substation
Southwest Lima-West Moulton 138 kV Transmission Line

B(4) Alternatives Considered

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

Alternative routes for the Project included considerations to keep the Southwest Lima-West Moulton transmission line on the east side of Sellers Road or relocate the transmission line to the west side of Sellers Road. Remaining on the existing centerline would result in the transmission structures and lines being located between the new inner and outer fence lines, presenting maintenance and security concerns. A northern route within the Station property was not considered, as the northern route would have increased the total transmission line length, increased the number of dead end structures, and involved multiple 345 kV crossings.

The west transmission route relocates five monopole structures and parallels Sellers Road. The west route will reconnect to the existing transmission line at the southwest corner of Sellers Road and intersecting railroad. The proposed fence expansion will occur within property owned by the Company, and no existing

Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton 138 kV Line Adjustment Project

residences or institutions are within 100 feet of the station or transmission line adjustment. The relocated transmission line will impact one parcel designated as an Agricultural District. It is anticipated that only the small footprint of the proposed pole locations along the 138-kV transmission lines will be converted from agricultural use as a result of the Project. The Project will have no effect on historic properties and resources, nor would the Project result in adverse effects to state and/or federal listed species. No impacts to delineated wetlands or streams are anticipated for the Project. Therefore, the Project would not result in socioeconomic or ecological impacts, would minimize construction and engineering challenges, and represents the most suitable solution to meet the Company's needs.

B(5) Public Information Program

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

The Company informs affected property owners and tenants about its projects through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements under Ohio Revised Code ("OAC") Section 4906-6-08(A)(1-6). Further, the Company will mail letters, 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://aepttransmission.com/ohio/>) which will provide the public access to an electronic copy of this LON and the public notice for this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this proposed Project. The Company retains ROW land agents that discuss Project timelines, construction and restoration activities and convey information to affected owners and tenants throughout the Project.

B(6) Construction Schedule

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

Construction of the Project is anticipated to begin in June 2022, and the anticipated in-service date is February 2023.

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 provides the proposed Project area and the locations of the existing Southwest Lima Substation and 345 kV transmission line on a map of 1:24,000-scale (1 inch equals 2,000 feet), showing the Project on a US Geological Survey 7.5 topographic map of the Cridersville Quadrangle near Fort Shawnee. **Figure 2** shows the Project area on recent aerial photography, dated 2021, as provided by Power Map, at a scale of 1:2,400 (1-inch equals 200 feet).

Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton 138 kV Line Adjustment Project

To visit the Project site from Columbus, Ohio, take I-70 West/I-71 South, following I-70 West towards Dayton for approximately 6 miles. Take exit 93, merging onto I-270 North towards Cleveland for approximately 9 miles. Take exit 17B to merge onto OH-161 West/ US-33 West towards Marysville for approximately 47 miles. Exit onto OH-117 West toward Huntsville/Lima for approximately 0.3 miles. Merge onto OH-117 West for 8.8 miles, then continue straight onto OH-117 West for approximately 18 miles. Turn left onto OH-117 West/OH-309 West in 0.2 miles, then turn right onto I-75 North towards Toledo for 0.4 miles. Follow I-75 North to East Bluelick Road, taking exist 130 from I-75 North, after approximately 4 miles. Turn left onto East Bluelick Road, then right onto Wolfe Road in approximately 1.5 miles. Turn right to the substation. The approximate address of the Southwest Lima Station site is 4281-4499 Sellers Road, Lima, Ohio 45806, at latitude 40.677593, longitude -84.182935.

B(8) Property Agreements

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

A list of properties required for the Project are provided in the table below.

Property Parcel No.	Agreement Needed	Easement Agreement Obtained (Yes/No)
46-2000-04-001.000	Supplemental Easement	No
46-20000-04-004.000	Existing Easement	Yes
46-2100-01-004.000	Existing Easement	Yes
46-2900-02-006.000	Existing Easement	Yes
46-2100-03-003.000	Company Property	N/A
46-2100-01-004.000	Company Property	N/A

B(9) Technical Features

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

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

The Southwest Lima 345 kV Station's operating characteristics will not change as a result of this project.

Line Asset Name: Southwest Lima-West Moulton 138 kV Line
Asset Ownership: Ohio Power Company
Voltage: 138kV
Conductors: (3) 636 kcmil 26/7 ACSR (Grosbeak)
Static Wire: (1) 7#8 Alumoweld
Insulators: NCI (Polymer): Brace Post and Strain Insulators
ROW Width: 60ft ROW Corridor
Structure Types: (2) single circuit, steel monopole dead end with Custom Concrete Foundations with

**Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton
138 kV Line Adjustment Project**

Anchor Bolts;
(3) single circuit, steel monopole tangents with Direct Embed Foundations

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project is estimated to be \$7,318,000, using a Class 3 estimate. 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) Land Use Characteristics

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

An aerial photograph of the Project vicinity is provided as **Figure 2**. The Project location and vicinity have historically been primarily agricultural land with scattered woodlots. The Project is mapped within the southwest corner of Shawnee Township, Allen County. The Project vicinity is currently rural in nature and is comprised primarily of agricultural land used for row crops, and lesser amounts of old or fallow fields, forested land, landscaped areas, and scattered residences, located along Bowsheer Road and north of the station on Sellers Road. Railroad tracks run adjacent to the Project area southwest to northeast. The Project is located approximately 4 miles southwest of the city of Lima and approximately 1.2 miles west of the Fort Shawnee and residential neighborhoods.

B(10)(b) Agricultural Land Information

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

The Allen County Auditor provided a list of parcels registered as Agricultural District Land on February 1, 2022. The Southwest Lima Substation is not located on lands identified as Agricultural District Lands. The Southwest Lima-West Moulton 138 kV transmission line relocation is located within lands identified as Agricultural District Lands, impacting one parcel (PARID# 46-2000-04-001.000) on the west side of Sellers Road. It is anticipated that only the small footprint of the proposed pole locations along the 138-kV

Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton 138 kV Line Adjustment Project

transmission lines will be converted from agricultural use as a result of the Project. Agricultural District Lands are also located on adjacent parcels surrounding the Project but will not be impacted.

B(10)(c) Archaeological and Cultural Resources

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

Phase I Archaeological Investigations and separate History/Architecture Investigations for the Project occurred in 2017. No previously identified archaeological sites are located within the project area, although three new Ohio Archaeological Inventory sites were identified during this survey. None of these sites were recommended eligible for listing in the National Register of Historic Places (NRHP). The architectural survey identified seven properties of historic age (i.e., 50 years or older) within 1,000 feet of the project area, none of which were considered eligible for listing in the NRHP. Consultation with the Ohio State Historic Preservation Office (SHPO) was initiated in November 2017, and a response was received in December 2017, which is included in **Appendix C**. The SHPO concurred with the determinations of the archaeological and architectural surveys and stated that the Project will have no effect on historic properties, and that no further investigation or consultation with the SHPO is necessary.

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

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

A Notice of Intent will be filed with the Ohio Environmental Protection Agency for authorization of construction storm water discharges under General Permit OHC000005. The Company will also coordinate storm water permitting needs with local government agencies, as necessary. The Company will implement and maintain best management practices as outlined in the Project-specific Storm Water Pollution Prevention Plan to minimize erosion and control sediment to protect surface water quality during storm events.

The Company's consultant conducted a stream and wetland delineation within the Project study area. Two wetlands and one perennial stream were identified within the Project study area, additional details regarding the delineated features are provided in Section (10)(f) below. No impacts to these features are proposed as part of the Project.

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

**Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton
138 kV Line Adjustment Project**

interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The United States Fish and Wildlife Service (USFWS) *Ohio County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species* (available at <https://www.fws.gov/midwest/Endangered/lists/pdf/OhioCtyList29Jan2018.pdf>) was reviewed to identify the threatened and endangered species known to occur in the Project county. This USFWS publication lists the Indiana bat (*Myotis sodalis*; federally endangered) and northern long-eared bat (*Myotis septentrionalis*; federally threatened). In August of 2017, coordination letters were sent to USFWS and the Ohio Department of Natural Resources (ODNR) soliciting responses. The Company re-submitted coordination letters in February 2022 to USFWS and ODNR requesting any revision to the previous 2017 responses.

Responses were received from the USFWS on September 18, 2017 and from the ODNR on December 1, 2017. According to the response letter received from the USFWS, this Project is located within the range of the federally endangered Indiana bat and federally threatened northern long-eared bat. According to the response received from ODNR, six state listed species may occur within the Project vicinity, some of which are also federally listed. These include the state and federally endangered Indiana bat, clubshell (*Pleurobema clava*), and northern riffleshell (*Epioblasma torulosa rangiana*); and the state threatened pondhorn (*Unio merus tetralasmus*), greater redhorse (*Moxostoma valenciennesi*), and upland sandpiper (*Bartramia longicauda*). A copy of the agency correspondence is provided in **Appendix C**.

The Company's consultant conducted a brief habitat survey as part of a wetland delineation conducted in 2017 and 2018. Based on general observations during this survey, potential habitat was observed within the Project survey area for every species identified by the USFWS and ODNR, except for the upland sandpiper. Therefore, this species is not anticipated to be present, and is not likely to be impacted by the Project. Additionally, while suitable habitat was identified for the clubshell, northern riffleshell, pondhorn, and greater redhorse due to the presence of a perennial stream (see Section B(10)(f)), no in-water work is proposed as part of the Project, and therefore, no impacts are anticipated to these species.

Potential summer habitat was observed in the Project survey area for the Indiana bat and northern long-eared bat. The USFWS commented that due to the project type, size, and location, and the proposal to adhere to season tree cutting between October 1 and March 31, there should be no adverse effects to either species. ODNR noted that the Project would occur within the range of the Indiana bat, and requested that trees are conserved if suitable habitat is present in the Project area. If trees must be cut, the ODNR Division of Wildlife recommends seasonal tree clearing activities occur between October 1 and March 31. Therefore, the Company intends to clear trees between October 1 and March 31 to avoid adverse effects to both the Indiana and northern long-eared bat.

Additional information regarding habitat assessments within the Project area is provided within the Wetland Delineation and Stream Assessment Report found in **Appendix D**.

B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains,

**Letter of Notification for Southwest Lima Station Expansion and Southwest Lima – West Moulton
138 kV Line Adjustment Project**

wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The Company's consultant prepared a Wetland Delineation and Stream Assessment Report, which is provided in **Appendix D**. The survey of the Project area identified a total of two wetlands totaling 0.20 acres and one perennial stream. Both wetlands are located to the southwest of the project area, near the intersection of Sellers Road and the railroad tracks, and the stream crosses the transmission line ROW to the northeast of the Project area. One delineated wetland was classified as palustrine emergent (PEM), and the other wetland was classified as palustrine forested (PFO). Both wetlands were identified as Category 1 wetlands under the Ohio Rapid Assessment Method for Wetlands (ORAM), which determines the relative ecological quality and level of disturbance of a wetland. Category 1 wetlands are considered low-quality and support minimal wildlife habitat and have a limited potential for restoration.

The perennial stream was identified as the Little Ottawa River, and approximately 220 linear feet of the flow through the Project survey area. This stream has an aquatic use designation of warmwater habitat from the Ohio Environmental Protection Agency (OEPA), in accordance with OEPA's water quality standards. It is considered eligible for coverage under OEPA's Section 401 Water Quality Certification. This stream was preliminarily determined to be jurisdictional (i.e., waters of the US), as it appears to flow into or combine with other streams. No ponds were identified within the Project survey area.

No permanent impacts to the perennial stream are anticipated, as no in-water work would occur as part of the Project. Additionally, no impacts to the wetlands would occur under the Project.

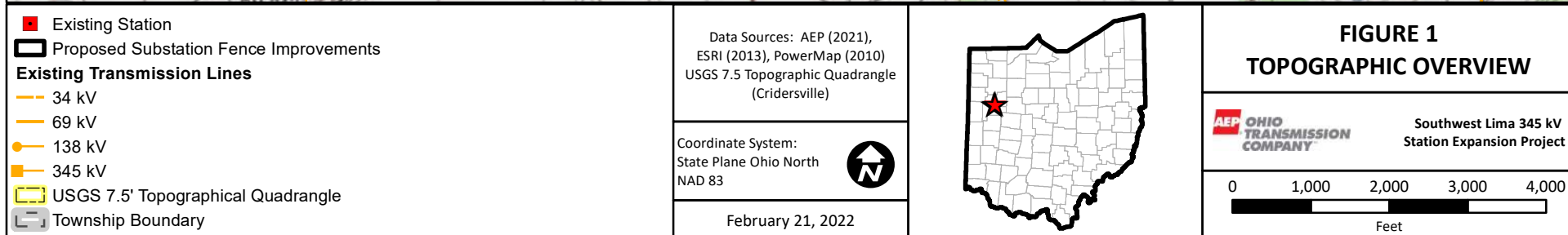
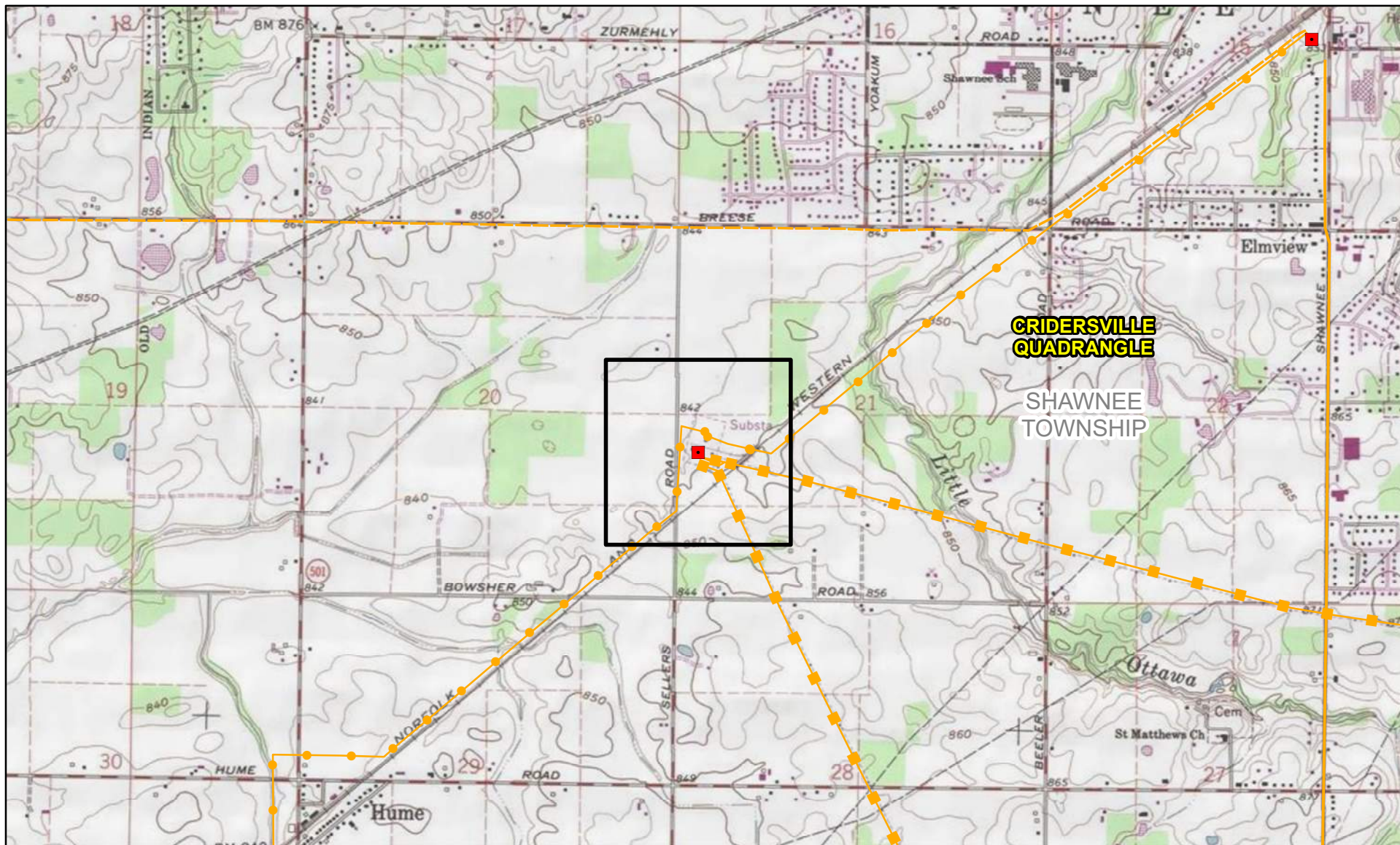
One tree will be removed between October 1 and March 31 to avoid adverse effects to both the Indiana and northern long-eared bat (See Section B(10)(e)). The tree is located on the west side of Sellers Road and will be within the transmission centerline.

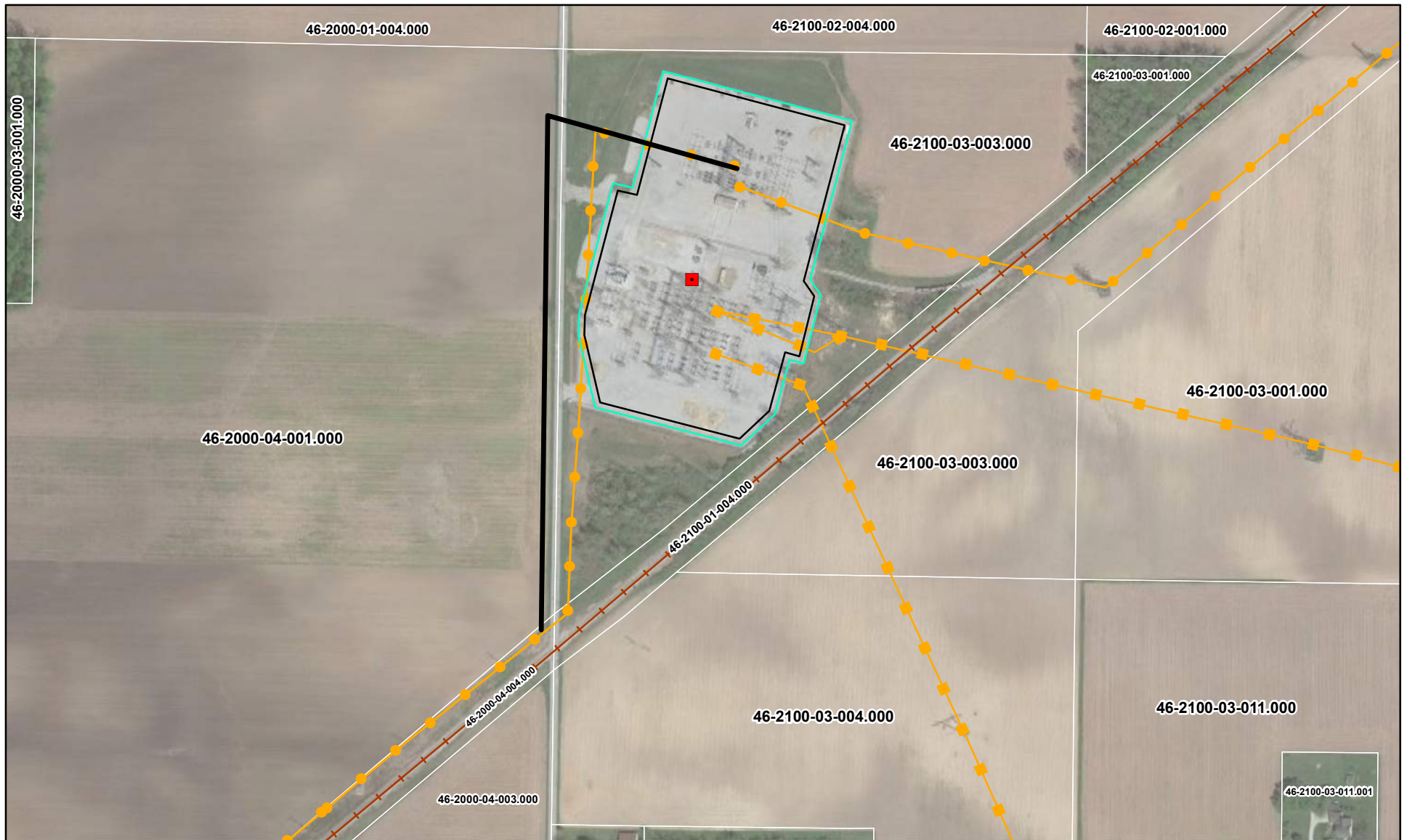
B(10)(g) Unusual Conditions

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

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

Appendix A Project Figures





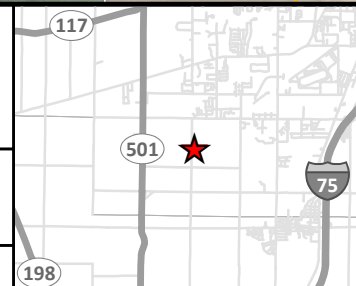
- Existing Station
- Proposed 138kV Transmission Centerline
- Existing Transmission Lines
 - 138 kV
 - 345 kV
- Railroad
- Existing Fence Line
- Proposed Fence Line
- Property Boundary

Data Sources: AEP (2021),
Google (2021),
PowerMap (2010)

Coordinate System:
State Plane Ohio North
NAD 83



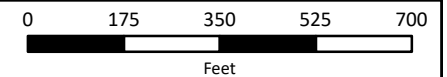
February 22, 2022



**FIGURE 2
AERIAL MAP**

**AEP OHIO
TRANSMISSION
COMPANY**

Southwest Lima 345 kV
Station Expansion Project



Appendix B SHPO Coordination



In reply refer to
2017-ALL-40509

December 20, 2017

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

RE: Southwest Lima Station Safety Fence Project, Shawnee Township, Allen County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on November 28, 2017 and December 12, 2017 regarding the proposed Southwest Lima Station Safety Project, Shawnee Township, 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 4906-4). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C.470 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the 19.5 ha (48.3 ac) Southwest Lima Station Safety Fence Project in Shawnee Township, Allen County, Ohio* by Weller & Associates, Inc. (2017).

A literature review, visual inspection, surface collection, shovel probe, and shovel test unit excavation was completed as part of the investigations. No previously identified archaeological sites are located within the project area. Three (3) new Ohio Archaeological Inventory (OAI) sites we identified during survey. OAI#33AL0233-33AL0235 are prehistoric period isolated finds identified during surface collection. None of the sites were recommended eligible for listing in the National Register of Historic Places (NRHP). Based on the information provided, we agree the archaeological sites are not eligible for listing in the NRHP and no additional archaeological survey is needed.

It appears your associated site inventory forms have been completed in IForm but not officially submitted to our office. Following IForm submission procedure, please send a notification to the survey manager (archsurvey@ohiohistory.org, or directly at beberhard@ohiohistory.org) so that the manager is aware your inventory is prepared, complete, and ready for review.

The following comments pertain to the *History/Architecture Investigations for the 19.5 ha (48.3 ac) Southwest Lima Station Safety Fence Project in Shawnee Township, Allen County, Ohio* by Weller & Associates, Inc. (2017).

The investigations consisted of a systematic survey of all properties fifty years of age or older that are situated within 1,000' of the proposed project site. Seven properties were identified within the Area of Potential Effects that may have a direct line-of-sight to the project.

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

RPR Serial No: 1071408, 1071600

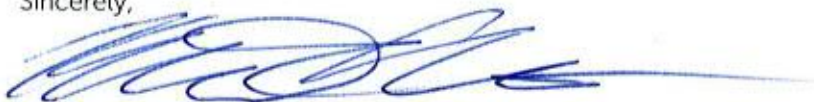
Mr. Ryan Weller
Page 2
December 20, 2017

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

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

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

Sincerely,



Krista Horrocks, Project Reviews Manager
Resource Protection and Review

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

RPR Serial No: 1071408, 1071600

OHIO HISTORY CONNECTION

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

Appendix C Agency Correspondence



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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

December 1, 2017

Aaron Geckle
AECOM
525 Vine Street, Suite 1800
Cincinnati, Ohio 45202

Re: 17-694; Southwest Lima Station Expansion Project

Project: The proposed project involves the expansion of the existing Southwest Lima Station.

Location: The proposed project is located in Shawnee 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 records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. The review was performed on the project area you specified in your request as well as an additional one mile radius. Records searched date from 1980.

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

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

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

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

The project is within the range of the 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, this project is not likely to impact these species.

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

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

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

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

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

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

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

Geckle, Aaron

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>
Sent: Monday, September 18, 2017 12:46 PM
To: Geckle, Aaron
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: Southwest Lima Station Expansion Project, Allen Co. OH



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



TAILS# 03E15000-2017-TA-1936

Dear Mr. Geckle,

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

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

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

considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

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

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

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

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

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state

listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Dan Everson".

Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW

Appendix D Ecological Resources Inventory Report

SOUTHWEST LIMA STATION EXPANSION PROJECT, ALLEN COUNTY, OHIO

WETLAND DELINEATION AND STREAM ASSESSMENT REPORT

Prepared for:

American Electric Power Ohio Transmission Company
700 Morrison Road
Gahanna, Ohio 45230



Prepared by:



525 Vine Street, Suite 1800
Cincinnati, Ohio 45202

Project #: 60553292

November 2019

TABLE OF CONTENTS

1.0	INTRODUCTION.....	4
2.0	METHODOLOGY.....	4
2.1	WETLAND DELINEATION	4
2.1.1	SOILS.....	5
2.1.2	HYDROLOGY.....	5
2.1.3	VEGETATION	6
2.1.4	WETLAND CLASSIFICATIONS	6
2.1.5	OHIO RAPID ASSESSMENT METHOD v. 5.0	6
	Category 1 Wetlands.....	7
	Category 2 Wetlands.....	7
	Category 3 Wetlands.....	7
2.2	STREAM CROSSINGS.....	8
2.2.1	OEPA QUALITATIVE HABITAT EVALUATION INDEX	8
2.2.2	OEPA PRIMARY HEADWATER HABITAT EVALUATION INDEX	9
2.2.3	OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY.....	10
2.3	THREATENED AND ENDANGERED SPECIES.....	10
3.0	RESULTS	11
3.1	WETLAND DELINEATION	11
3.1.1	Preliminary Soils Evaluation.....	11
3.1.2	National Wetland Inventory Map Review	12
3.1.3	Delineated Wetlands.....	13
3.1.4	Delineated Wetlands ORAM V5.0 Results.....	13
3.2	STREAM CROSSINGS.....	14
3.3	PONDS.....	14
3.4	VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA.....	14
3.5	THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION.....	15
4.0	SUMMARY.....	20
5.0	REFERENCES.....	22

TABLES**Number**

TABLE 1	SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE SOUTHWEST LIMA STATION EXPANSION PROJECT SURVEY AREA
TABLE 2	DELINEATED WETLANDS WITHIN THE SOUTHWEST LIMA STATION EXPANSION PROJECT SURVEY AREA
TABLE 3	VEGETATIVE COMMUNITIES WITHIN THE PROJECT AREA
TABLE 4	ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

FIGURES**Number**

FIGURE 1	Overview Map
FIGURE 2	Soil Map Unit and National Wetland Inventory Map
FIGURE 3	Wetland Delineation and Stream Assessment Map
FIGURE 4	Stream Eligibility Map
FIGURE 5	Vegetative Communities Assessment Map

APPENDICES**Number**

APPENDIX A	U.S. Army Corps of Engineers Wetland Forms
APPENDIX B	OEPA Wetland ORAM Forms
APPENDIX C	Delineated Feature Photographs
APPENDIX D	Correspondence Letters from USFWS and ODNR

LIST OF ACRONYMS and ABBREVIATIONS

AEP Ohio Transco	American Electric Power Ohio Transmission Company
FAC	Facultative
FACU	Facultative upland
FACW	Facultative wetland
GPS	Global Positioning System
HHEI	Headwater Habitat Evaluation Index
IBI	Index of Biotic Integrity
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate wetland
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OHWM	Ordinary high water mark
PEM	Palustrine emergent wetland
PFO	Palustrine forested wetland
QHEI	Qualitative Habitat Evaluation Index
ROW	Right-of-way
UPL	Upland
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

American Electric Power Ohio Transmission Company's (AEP Ohio Transco) is proposing to expand its existing Southwest Lima Station in Allen County, Ohio. AEP requested that AECOM survey approximately 56 acres that includes the existing 10-acre station and adjacent areas. The fenced expansion area will cover approximately an additional two acres of the 56-acre property owned by AEP. The existing fenced area of the station is approximately 10 acres.

The purpose of the field survey was to assess whether wetlands and other "waters of the U.S." exist within the approximately 56-acre Project survey area. Additionally, AECOM conducted a rare, threatened, and endangered species review and general field habitat surveys within the Project survey area. This report will also be used to assist AEP Ohio Transco's efforts to avoid impacts to threatened and endangered species during construction activities. The proposed Project is illustrated on Figure 1.

2.0 METHODOLOGY

Prior to conducting field surveys, digital and published county Natural Resources Conservation Service (NRCS) soil surveys, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, and U.S. Geological Survey (USGS) 7.5-minute topographic maps were reviewed to identify the occurrence and location of potential wetland areas. Similarly, digital and published data from the USFWS and Ohio Department of Natural Resources – Division of Wildlife (ODNR-DOW) were reviewed regarding potential rare, threatened, and endangered species potentially nearby or within the Project area.

Physical boundaries of observed water features or rare, threatened, and endangered species were recorded using sub-decimeter accurate Trimble Global Positioning System (GPS) units. The GPS data was imported into ArcMap GIS software, where the data was then reviewed and edited for accuracy.

2.1 WETLAND DELINEATION

The Project survey area was evaluated according to the procedures outlined in the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (1987 Manual) (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (Regional Supplement) (USACE, 2010). The Midwest Regional Supplement was released by the USACE in August 2010 to address regional wetland characteristics and improve the accuracy and efficiency of wetland delineation procedures. This 1987 Manual and Regional Supplement define wetlands as areas that have positive evidence of three environmental parameters: hydric soils, wetland hydrology, and hydrophytic vegetation. Wetland boundaries are placed where one or more of these parameters give way to upland characteristics.

Since quantitative data were not available for any of the identified wetlands, AECOM utilized the routine delineation method described in the 1987 Manual and Regional Supplements that consisted of a pedestrian site reconnaissance, including identifying the vegetation communities, soils identification, a geomorphologic assessment of hydrology, and notation of disturbance. The methodology used to examine each parameter is described in the following sections.

2.1.1 SOILS

Soils were examined for hydric soil characteristics using a spade shovel to extract soil samples. A *Munsell Soil Color Chart* (Kollmorgen Corporation, 2010) was used to identify the hue, value, and chroma of the matrix and mottles of the soils. Generally, mottled soils with a matrix chroma of two or less, or unmottled soils with a matrix chroma of one or less are considered to exhibit hydric soil characteristics (Environmental Laboratory, 1987). In sandy soils, mottled soils with a matrix chroma of three or less, or unmottled soils with a matrix chroma of two or less are considered to be hydric soils.

2.1.2 HYDROLOGY

The *1987 Manual* requires that an area be inundated or saturated to the surface for an absolute minimum of five percent of the growing season (areas saturated between five percent and 12.5 percent of the growing season may or may not be wetlands, while areas saturated over 12.5 percent of the growing season fulfill the hydrology requirements for wetlands). The *Regional Supplement* states that the growing season dates are determined through onsite observations of the following indicators of biological activity in a given year: (1) above-ground growth and development of vascular plants, and/or (2) soil temperature (12-in. depth) is 41 degree Fahrenheit (°F) or higher as an indicator of soil microbial activity. Therefore, the beginning of the growing season in a given year is indicated by whichever condition occurs earlier, and the end of the growing season by whichever persists later.

The *Regional Supplement* also stated that if onsite data gathering is not practical, the growing season can be approximated by the number of days between the average (five years out of ten, or 50 percent probability) date of the last and first 28°F air temperature in the spring and fall, respectively. The National Weather Service WETS data obtained from the NRCS National Water and Climate Center reveals for Allen County that in an average year, this period lasts from April 10 to November 2, or 206 days. In the Project area, five percent of the growing season equates to approximately ten days.

The soils and ground surface were examined for evidence of wetland hydrology in lieu of detailed hydrological data. This is an acceptable approach according to the *1987 Manual* and the *Regional Supplement*. Evidence indicating wetland hydrology typically includes primary indicators such as surface water, saturation, water marks, drift deposits, water-stained leaves, sediment deposits and oxidized rhizospheres on living roots; and secondary indicators such as drainage patterns, geomorphic position, micro-topographic relief, and a positive Facultative (FAC)-neutral test (USACE, 2010).

2.1.3 VEGETATION

Dominant vegetation was visually assessed for each stratum (tree, sapling/shrub, herb and woody vine) and an indicator status of obligate wetland (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and/or upland (UPL) was assigned to each plant species based on the U.S. Army Corps of Engineers *2016 National Wetland Plant List: Midwest Region*, which encompasses the area of the Project. An area is determined to have hydrophytic vegetation when, under normal circumstances, 50 percent or more of the composition of the dominant species are OBL, FACW and/or FAC species. Vegetation of an area was determined to be non-hydrophytic when more than 50 percent of the composition of the dominant species was FACU and/or UPL species. In addition to the dominance test, the FAC-Neutral test and prevalence tests are used to determine if a wetland has a predominance of hydrophytic vegetation. Recent USACE guidance indicates that to the extent possible, the hydrophytic vegetation decision should be based on the plant community that is normally present during the wet portion of the growing season in a normal rainfall year (USACE, 2010).

2.1.4 WETLAND CLASSIFICATIONS

Wetlands were classified based on the naming convention found in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al*, 1979). The identified wetlands within the survey area were classified as a freshwater, Palustrine system, which includes non-tidal wetlands dominated by trees, shrubs, emergents, mosses, or lichens. Two palustrine wetland classes were identified within the Project survey area:

- **PEM** – Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.
- **PFO** – Forested wetlands are characterized by woody vegetation that is 3 inches or more DBH, regardless of total height. These wetlands generally include an overstory of broad-leaved and needle-leaved trees, an understory of young saplings and shrubs, and a herbaceous layer.

2.1.5 OHIO RAPID ASSESSMENT METHOD v. 5.0

The Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method for Wetlands v. 5.0 (ORAM) was developed to determine the relative ecological quality and level of disturbance of a particular wetland in order to meet requirements under Section 401 of the Clean Water Act. Wetlands are scored on the basis of hydrology, upland buffer, habitat alteration, special wetland communities, and vegetation communities. Each of these subject areas is further divided into subcategories under ORAM v. 5.0 resulting in a score that describes the wetland using a range from 0 (low quality and high disturbance) to

100 (high quality and low disturbance). Wetlands scored from 0 to 29.9 are grouped into "Category 1", 30 to 59.9 are "Category 2" and 60 to 100 are "Category 3". Transitional zones exist between "Categories 1 and 2" from 30 to 34.9 and between "Categories 2 and 3" from 60 to 64.9. However, according to the OEPA, if the wetland score falls into the transitional range, it must be given the higher Category unless scientific data can prove it should be in a lower Category (Mack, 2001).

Category 1 Wetlands

Category 1 wetlands support minimal wildlife habitat, hydrological and recreational functions, and do not provide for or contain critical habitats for threatened or endangered species. In addition, Category 1 wetlands are often hydrologically isolated and have some or all of the following characteristics: low species diversity, no significant habitat for wildlife use, limited potential to achieve wetland functions, and/or a predominance of non-native species. These limited quality wetlands are considered to be a resource that has been severely degraded or has a limited potential for restoration, or is of low ecological functionality.

Category 2 Wetlands

Category 2 wetlands "...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." Category 2 wetlands constitute the broad middle category of "good" quality wetlands, and can be considered a functioning, diverse, healthy water resource that has ecological integrity and human value. Some Category 2 wetlands are lacking in human disturbance and considered to be naturally of moderate quality; others may have been Category 3 wetlands in the past, but have been degraded to Category 2 status.

Category 3 Wetlands

Wetlands that are assigned to Category 3 have "...superior habitat, or superior hydrological or recreational functions." They are typified by high levels of diversity, a high proportion of native species, and/or high functional values. Category 3 wetlands include wetlands which contain or provide habitat for threatened or endangered species, are high quality mature forested wetlands, vernal pools, bogs, fens, or which are scarce regionally and/or statewide. A wetland may be a Category 3 wetland because it exhibits one or all of the above characteristics. For example, a forested wetland located in the flood plain of a river may exhibit "superior" hydrologic functions (e.g. flood retention, nutrient removal), but not contain mature trees or high levels of plant species diversity.

2.2 STREAM CROSSINGS

Regulatory activities under the Clean Water Act provide authority for states to issue water quality standards and “designated uses” to all waters of the U.S. upstream to the highest reaches of the tributary streams. In addition, the Federal Water Pollution Control Act of 1972 and its 1977 and 1987 amendments require knowledge of the potential fish or biological communities that can be supported in a stream or river, including upstream headwaters. Streams were identified by the presence of a defined bed and bank, and evidence of an ordinary high water mark (OHWM). The USACE defines OHWM as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (USACE, 2005).

Stream assessments were conducted using the methods described in the OEPA’s Methods for Assessing Habitat in Flowing Waters: Using OEPA’s *Qualitative Habitat Evaluation Index* (Rankin, 2006) and in the OEPA’s *Field Methods for Evaluating Primary Headwater Streams in Ohio* (OEPA, 2018). Streams assessed in the Project survey area were reviewed for existing OEPA Aquatic Life Use Designations per OEPA’s Water Quality Standards (OAC Chapter 3745-1). Those without an existing use designation were assigned a provisional aquatic life use designation based upon habitat assessment results (Rankin, 1989).

2.2.1 OEPA QUALITATIVE HABITAT EVALUATION INDEX

The qualitative habitat evaluation index (QHEI) is designed to provide a rapid determination of habitat features that correspond to those physical factors that most affect fish communities and which are generally important to other aquatic life (e.g., macroinvertebrates). The quantitative measure of habitat used to calibrate the QHEI score are Indices (or Index) of Biotic Integrity (IBI) for fish. In most instances the QHEI is sufficient to give an indication of habitat quality, and the intensive quantitative analysis used to measure the IBI is not necessary. It is the IBI, rather than the QHEI, that is directly correlated with the aquatic life use designation for a particular surface water.

The QHEI method is generally considered appropriate for waterbodies with drainage basins greater than one square mile, if natural pools are greater than 40 cm, or if the water feature is shown as blue-line waterways on USGS 7.5-minute topographic quadrangle maps. In order to convey general stream habitat quality to the regulated public, the OEPA has assigned narrative ratings to QHEI scores. The ranges vary slightly for headwater streams (H are those with a watershed area less than or equal to 20 square miles) versus larger streams (L are those with a watershed area greater than 20 square miles). The Narrative Rating System includes: Very Poor (<30 H and L), Poor (30 to 42 H, 30 to 44 L), Fair (43 to 54 H, 45 to 59 L), Good (55 to 69 H, 60 to 74 L) and Excellent (70+ H, 75+ L).

2.2.2 OEPA PRIMARY HEADWATER HABITAT EVALUATION INDEX

Headwater streams are typically considered to be first-order and second-order streams, meaning streams that have no upstream tributaries (or “branches”) and those that have only first-order tributaries, respectively. The stream order concept can be problematic when used to define headwater streams because stream-order designations vary depending upon the accuracy and resolution of the stream delineation. Headwater streams are generally not shown on USGS 7.5-minute topographic quadrangles and are sometimes difficult to distinguish on aerial photographs. Nevertheless, headwater streams are now recognized as useful monitoring units due to their abundance, widespread spatial scale and landscape position (Fritz, et al. 2006). Impacts to headwater streams can have a cascading effect on the downstream water quality and habitat value. The headwater habitat evaluation index (HHEI) is a rapid field assessment method for physical habitat that can be used to appraise the biological potential of most Primary Headwater (PHW) streams. The HHEI was developed using many of the same techniques as used for QHEI, but has criteria specifically designed for headwater habitats. To use HHEI, the stream must have a “defined bed and bank, with either continuous or periodically flowing water, with watershed area less than or equal to 1.0 square mile, and a maximum depth of water pools equal to or less than 15.75 inches” (OEPA, 2018). Pool depth and water volume of headwater streams are normally insufficient to fully support the biological criteria associated with other sub-categories of aquatic life described OAC 3745-1-07.

Headwater streams are scored based on channel substrate composition, bankfull width, and maximum pool depth. Assessments result in a score (0 to 100) that is converted to a specific PHW stream type. Streams that are scored from 0 to 29 are typically identified as “Ephemeral Aquatic Streams”, 30 to 70 are “Small Drainage Warmwater Streams”, and 71 to 100 are “Spring Water Streams”. Technically, a stream can score relatively high, but actually belong in a lower class, and vice-versa. According to the OEPA, if the stream score falls into a class and the scorer feels that based on site observations that score does not reflect the actual stream class, a biological assessment can be used to determine appropriate PHW stream type using the Level 2 or Level 3 PHW protocol (OEPA, 2018). Evidence of anthropogenic alterations to the natural channel will result in a “Modified” qualifier for the stream type.

Ephemeral Aquatic Streams: are those that have “have limited or no aquatic life potential, except seasonally when flowing water is present for short time periods following precipitation or snow melt” (OEPA, 2018). These waterways typically exhibit no significant habitat for aquatic fauna, no significant wildlife use, and limited or no potential to achieve higher PHW aquatic biological functions.

Small Drainage Warmwater Streams: are equivalent to “warmwater habitat” streams and exhibit intermittent or perennial flow. This stream class has a “moderately diverse community of warmwater adapted native fauna either present seasonally or year-round” (OEPA, 2018). The species communities

are composed of vertebrates (fish and salamanders) and/or benthic macroinvertebrates that are considered pioneering and/or temperature facultative species.

Spring Water Streams: have prevailing flow and temperature conditions influenced by groundwater, with diverse communities of cold water adapted native fauna present year-round. Spring Water streams may be further divided into two sub-types based upon a detailed and complete evaluation of the aquatic faunal community, though that level of assessment is outside the scope of the data quality objectives for the proposed project.

2.2.3 OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

The OEPA has designated each watershed in the state on the basis of whether it may be **ineligible** for coverage under Ohio EPA's 401 Water Quality Certification for Nationwide Permits. Mapping provided by OEPA illustrate the eligibility of streams in the area for a nationwide 401 permit. Three categories are identified as eligible, ineligible, and possibly eligible with additional field screening required. Impacts to streams within each watershed would then have eligibility for 401 Water Quality Certification determined by the watershed category. The three categories are defined as:

Eligible: Streams within the watershed are eligible for coverage under Ohio EPA's water quality certification for the nationwide permits if all other general and regional special terms and conditions are met.

Ineligible: Projects affecting high quality streams and undesignated streams draining directly to high quality streams, as represented in the map, must undergo an individual 401 Water Quality Certification review process.

Possibly Eligible: Additional field screening procedures are required for streams in the watershed to determine appropriate eligibility. Projects affecting undesignated streams within those HUC12 watersheds that do not directly but eventually drain into high quality waters, might be eligible for coverage under Ohio EPA's 401 Water Quality Certification for Nationwide Permits depending on the results of a field screening assessment. The procedures for determining individual stream eligibility in this scenario are specified in Appendix C "Stream Eligibility Determination Process" of the OEPA Ohio State Water Quality Certification of the 2017 Nationwide Permit Reauthorization.

2.3 THREATENED AND ENDANGERED SPECIES

The first phase of survey involved a review of online lists of federal and state listed species. In addition to the review of available literature, AECOM submitted coordination letters to the USFWS and ODNR Office of Real Estate – Environmental Review Services Section requesting records of species known to occur within close proximity to the Project as well as comments on the Project.

Secondly, land uses within the Project survey area were assigned a general classification based upon the principal land characteristics of the location as observed through aerial photography review and observations during the field surveys. The general land use type within the proposed Project area included: successional woodland, actively farmed agricultural areas, the existing transmission station and surrounding landscape area, and maintained transmission line right-of-way (ROW).

3.0 RESULTS

In September 2017 and October 2018, AECOM ecologists walked the Project survey area to conduct a wetland delineation, stream assessment, and listed species habitat assessment. The delineated features are discussed in detail in the following sections.

3.1 WETLAND DELINEATION

3.1.1 Preliminary Soils Evaluation

Soils in the delineated wetland were observed and documented as part of the delineation methodology. According to the USDA/NRCS Web Soil Surveys of Allen County, Ohio (NRCS 2016) and the NRCS Hydric Soils Lists of Ohio, sixteen soil series are mapped within the Project survey area (NRCS 2016). Within these soil series, ten soil map units are listed as hydric. Table 1 provides a detailed overview of all soil series and soil map units within the Project survey area. Soil map units located within the Project survey area are shown on Figure 2.

TABLE 1
SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE SOUTHWEST LIMA STATION EXPANSION PROJECT SURVEY AREA

Soil Series	Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Gallman	GaA	Gallman loam, 0 to 2 percent slopes	Rises on glacial drainage channels, rises on outwash plains	Not Hydric	N/A
	GaB	Gallman loam, 2 to 6 percent slopes	End moraines, knolls on ground moraines, knolls on outwash plains, knolls on glacial drainage channels	Not Hydric	N/A
	GaC	Gallman loam, 6 to 12 percent slopes	End moraines	Not Hydric	N/A
	GbA	Gallman silt loam, 0 to 2 percent slopes	Rises on glacial drainage channels, rises on outwash plains	Not Hydric	N/A
Glynwood	Gwg5C2	Glynwood clay loam, ground moraine, 6 to 12 percent slopes, eroded	Ground moraines	Hydric	Pewamo (7)
Houcktown	HpB	Houcktown sandy loam, 2 to 4 percent slopes	Knolls on ground moraines, knolls on end moraines, knolls on lake plains	Hydric	Alvada (5)
	HsA	Houcktown silt loam, 0 to 2 percent slopes	Rises on deltas on lake plains, rises on lake plains, rises on ground moraines	Hydric	Alvada (5)
	HsB	Houcktown silt loam, 2 to 4 percent slopes	Knolls on end moraines, knolls on ground moraines	Not Hydric	N/A

TABLE 1
SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE SOUTHWEST LIMA STATION EXPANSION PROJECT
SURVEY AREA

Soil Series	Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Medway	MbA	Medway silt loam, 0 to 2 percent slopes, occasionally flooded	Flats on floodplains	Hydric	Very poorly drained soils (5)
Pewamo	PmA	Pewamo silty clay loam, 0 to 1 percent slopes	Depressions on till plains, drainageways on till plains	Hydric	Pewamo (85) Minster (6)
Saranac	SbA	Saranac silty clay loam, 0 to 1 percent slopes, rarely flooded	Backswamps on floodplains, flats on floodplains	Hydric	Saranac (90)
Shoals	ShA	Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	Floodplains	Hydric	Sloan (8)
Sleeth	SnA	Sleeth silt loam, 0 to 2 percent slopes	Flats on outwash plains, stream terraces, rises on outwash plains	Hydric	Westland (10)
Thackery	TkA	Thackery loam, sandy substratum, 0 to 2 percent slopes	Flats on stream terraces, flats on outwash plains, rises on stream terraces, rises on outwash plains	Not Hydric	N/A
Westland	WdA	Westland clay loam, 0 to 1 percent slopes	Depressions on outwash plains, drainageways on outwash plains, glacial drainage channels	Hydric	Westland (90)
Westland-Rensselaer	WeA	Westland-Rensselaer complex, 0 to 1 percent slopes	Depressions on outwash plains, drainageways on outwash plains, glacial drainage channels	Hydric	Westland (50)

NOTES:

(1) Data sources include:

[USDA, NRCS. 2017 Soil Survey Geographic \(SSURGO\) Database. Available online at: http://soildatamart.nrcs.usda.gov/](http://soildatamart.nrcs.usda.gov/)

[USDA, NRCS. December 2015. National Hydric Soils List by State. Available online at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/)

3.1.2 National Wetland Inventory Map Review

National Wetland Inventory (NWI) wetlands are areas of potential wetland that have been identified from USFWS aerial photograph interpretation which have typically not been field verified. Forested and heavy scrub/shrub wetlands are often not shown on NWI maps as foliage effectively hides the visual signature that indicates the presence of standing water and moist soils from an aerial view. The USFWS website states that the NWI maps are not intended or designed for jurisdictional wetland identification or location. As a result, NWI maps do not show all the wetlands found in a particular area nor do they necessarily provide accurate wetland boundaries. NWI maps are useful for providing indications of potential wetland areas, which are often supported by soil mapping and hydrologic predictions, based upon topographical analysis using USGS topographic maps.

According to the NWI maps of the Lima, Ohio quadrangle, the Project survey area contains one mapped NWI wetland. This feature is located in the northeastern portion of the Project survey area and is characterized as a riverine, lower perennial, unconsolidated bottom, permanently flooded area (R2UBH).

3.1.3 Delineated Wetlands

During the field survey, AECOM identified two wetlands, ranging in size from 0.06 to 0.14 acres, within the Project survey area. The two wetlands within the Project survey area are of two different wetland habitat types: one PEM wetland and one PFO wetland. See Table 2 for a summary of the delineated wetlands within the Project survey area.

Additionally, AECOM commonly splits wetlands where there is an obvious break between Cowardin wetland types. This split results in each wetland section being assessed independently; however, AECOM recognizes that split wetland sections are a component of a larger wetland complex.

The locations and approximate extent of the wetlands identified within the Project survey area are shown on Figures 3A through Figure 3B. Completed USACE and ORAM wetland delineation forms are provided in Appendix A and B, respectively. Representative color photographs taken of the wetlands are provided in Appendix C.

TABLE 2
DELINEATED WETLANDS WITHIN THE SOUTHWEST LIMA STATION EXPANSION PROJECT
SURVEY AREA

Wetland Name	Latitude	Longitude	Cowardin Wetland Type ^a	ORAM Score	ORAM Category	Acreage within Project Survey Area
Wetland 01a	40.675470	-84.184289	PEM	22.5	Category 1	0.06
Wetland 01b	40.675391	-84.184175	PFO	22.5	Category 1	0.14
Total: 2 Wetlands						0.20

Cowardin Wetland Type^a: PEM = palustrine emergent, PFO = palustrine forested

3.1.4 Delineated Wetlands ORAM V5.0 Results

Within the Project survey area, the two wetlands were identified as Category 1 wetlands. Wetland 01a and Wetland 01b had an ORAM score of 22.5. A breakdown of ORAM scores can be found in Table 2. Completed ORAM forms are provided in Appendix B.

Category 1 Wetlands

The two Category 1 wetlands delineated within the Project survey area include: one PEM wetland (Wetland 01a) and one PFO wetland (Wetland 01b). The Category 1 wetlands generally exhibited narrow to medium upland buffers, low to high intensive surround land use (e.g. old field, shrubland, young second growth forest, open pasture, row cropping), sparse to moderate percentage of invasive species,

and had habitat and hydrology generally recovering or recently impacted from previous manipulation due to clearcutting, sedimentation, nutrient enrichment, and farming.

Category 2 Wetlands

No Category 2 wetlands were identified during the surveys.

Category 3 Wetlands

No Category 3 wetlands were identified during the surveys.

3.2 STREAM CROSSINGS

AECOM identified one perennial stream, totaling 220 linear feet, within the Project survey area. Stream 01 (Little Ottawa River) was not assessed using either HHEI or QHEI methodology since it is a larger waterbody and has an OEPA aquatic use designation. The location of the stream is shown on Figure 3B.

The OEPA has established water use designation for streams throughout Ohio as outlined in the Ohio Administrative Code (OAC), OAC-3745-1-07. Water use designations within the Maumee River drainage basin are regulated under OAC-3745-1-11. Little Ottawa River was identified with a state of Ohio aquatic use designation of Warmwater habitat (WWH).

AECOM has preliminarily determined that the assessed stream within the Project survey area appears to be jurisdictional (i.e., waters of the U.S.), as it appears to be a tributary that flows into or combines with other streams (waters of the U.S).

3.3 PONDS

No ponds were identified by AECOM with in the Project survey area.

3.4 VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA

AECOM field ecologists conducted a general habitat survey in conjunction with the stream and wetland field survey in September 2017 and October 2018. Portions of the Project survey area were identified as existing transmission station (urban area), landscaped areas, successional woodland, and agricultural land. Habitat descriptions, applicable to the Project, and details on the expected impacts of construction are provided below. Vegetated land cover can be seen visually from aerial photography provided on Figure 4.

TABLE 3
VEGETATIVE COMMUNITIES WITHIN THE PROJECT AREA

Vegetative Community	Description	Approximate Acreage Within the Project Survey Area	Approximate Percentage within the Project Survey Area
Agricultural Land	Agricultural land consisting of soybean and corn fields was present along the Project survey area. The agricultural land contains row crops and is not used for pasture or hay fields.	33	59%
Landscaped Areas	Landscaped areas, including residential properties and commercial properties, were observed within the Project vicinity. These landscaped areas within the Project survey area and adjacent areas are frequently mowed grasses and forbs.	7	12.5%
Stream/Wetland	Wetlands were observed within the Project survey area, and a perennial stream was observed both within and beyond the Project survey area.	0.5	0.8%
Successional Woodland	Successional mixed woodlands are present in the Project survey area. Woody species dominating these areas included American Beech (<i>Fagus grandifolia</i>), red oak (<i>Quercus rubra</i>), white oak (<i>Quercus alba</i>), sugar maple (<i>Acer saccharum</i>), red maple (<i>Acer rubrum</i>), box elder (<i>Acer negundo</i>), shagbark hickory (<i>Carya ovata</i>), and black cherry (<i>Prunus serotina</i>). The dominant shrub-layer species included spicebush (<i>Lindera benzoin</i>), poison ivy (<i>Toxicodendron radicans</i>), honeysuckle (<i>Lonicera japonica</i>), and blackberry (<i>Rubus occidentalis</i>).	2.5	4.5%
Urban	Urban areas are areas developed with residential and commercial land uses, including roads, buildings and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	13	23.2%
Totals:		56.0	100%

3.5 THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

AECOM conducted a rare, threatened, and endangered species review for areas crossed by the Project survey area. The first phase of the evaluation involved a review of online lists of federal and state listed species. Coordination letters were submitted to the USFWS and ODNR Office of Real Estate – Environmental Review Services Section requesting comments on the project were submitted. A summary of the agency coordination is provided below. Correspondence letters from the USFWS and ODNR are included as Appendix D. Table 4 provides a list of species identified by the agencies as potentially occurring within or near the Project area.

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments
Mammals						
Indiana bat (<i>Myotis sodalis</i>)	Endangered	Endangered	Winter Indiana bat hibernacula include caves and mines, while summer habitat typically includes tree species exhibiting exfoliating bark or cavities that can be used for roosting. The 8- to 10-inch diameter size classes of several species of hickory (<i>Carya</i> spp.), oak (<i>Quercus</i> spp.), ash (<i>Fraxinus</i> spp.), birch (<i>Betula</i> spp.), and elm (<i>Ulmus</i> spp.) have been found to be utilized by the Indiana bat. These tree species and many others may be used when dead, if there are adequately sized patches of loosely-adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes a mixture of loose-barked trees with 60 to 80 percent canopy closure and a low density sub-canopy (less than 30 percent between about 6 feet high and the base canopy). The suitability of roosting habitat for foraging or the proximity to suitable foraging habitat is critical to the evaluation of a particular tree stand. An open subcanopy zone, under a moderately dense canopy, is important to allow maneuvering while catching insect prey.	Yes	Some potentially suitable habitat was observed within the Project survey area (woodlands).	USFWS commented that due to the project type, size, and location, plus the project proposal for seasonal cutting tree cutting between October 1 and March 31, there should be no expected impacts to the Indiana bat. ODNR requested that suitable Indiana bat habitat should be conserved or cut between October 1 and March 31.
Northern long-eared bat (<i>Myotis septentrionalis</i>)	Threatened	Threatened	Winter hibernacula include caves and mines, while summer habitat typically includes tree species exhibiting exfoliating bark or cavities that can be used for roosting. The 8- to 10-inch diameter size classes of several species of hickory (<i>Carya</i> spp.), oak (<i>Quercus</i> spp.), ash (<i>Fraxinus</i> spp.), birch (<i>Betula</i> spp.), and elm (<i>Ulmus</i> spp.) have been found to be utilized by northern long-eared bats. These tree species and many others may be used when dead, if there are adequately sized patches of loosely-adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes a mixture of loose-barked trees with 60 to 80 percent canopy closure and a low density sub-canopy (less than 30 percent between about 6 feet high and the base canopy). The suitability of roosting habitat for foraging or the proximity to suitable foraging habitat is critical to the evaluation of a particular tree stand. An open	Yes	Some potentially suitable habitat was observed within the Project survey area (woodlands)	USFWS commented that due to the project type, size, and location, plus the project proposal for seasonal cutting tree cutting between October 1 and March 31, there should be no expected impacts to the northern long-eared bat.

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments
			subcanopy zone, under a moderately dense canopy, is important to allow maneuvering while catching insect prey. Proximity to water is critical, because insect prey density is greater over or near open water. Northern long-eared bats have also been found, albeit rarely, roosting in structures like barns and sheds.			
Mussels						
Clubshell (<i>Pleurobema clava</i>)	Endangered	Endangered	This mussel prefers clean, loose sand and gravel in medium to small rivers and streams. This mussel will bury itself in the bottom substrate to depths of up to four inches.	Yes	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Pondhorn (<i>Unio merus tetralasmus</i>)	Threatened	None	This mussel prefers ponds, small creeks, and the headwaters of larger streams in mud and sand. This mussel can withstand periods of desiccation and is often present in areas where few other mussels are found.	Yes	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Northern Riffleshell (<i>Epioblasma torulosa rangiana</i>)	Endangered	Endangered	This mussel prefers stable, undisturbed habitat and a sufficient population of host fish to complete the mussel's larval development. Adult mussels require gravel and sand habitat.	Yes	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Fish						

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments
Greater redhorse (<i>Moxostoma valenciennesi</i>)	Threatened	Species of Concern	Found in medium to large rivers in the Lake Erie drainage system. Only found in limited portions of the Sandusky, Maumee, and Grand River systems. Greater redhorse are typically found in pools with clean sand or gravel substrate, but are intolerant of pollution and turbid water.	Yes	No in-water work is planned as part of the Project. No impacts to fish species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.
Birds						
Upland sandpiper (<i>Bartramia longicauda</i>)	Endangered	None	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).	No	Suitable habitat was not identified within the Project area	ODNR stated if construction will be avoided during the nesting (April 15 to July 31), this project is not likely to impact this species.

ODNR-DOW Coordination –

Coordination with the ODNR was initiated during the planning stages of the Project to obtain records located in the vicinity of the project. AECOM received correspondence back from the ODNR on December 1, 2017. The ONHD indicated that there were no records of state endangered or threatened plants or animals within the project Vicinity.

The ODNR-DOW also provided comments in the December 1, 2017 correspondence in regard to state and/or federally listed species that may occur within the Project vicinity. ODNR-DOW recommended that impact to wetlands, streams or other water resources be avoided or minimized and that erosion and sediment controls be utilized.

The ODNR-DOW recommended that the Project was within the range of the federal and state endangered Indiana bat. ODNR-DOW further described suitable summer habitat and recommended that if any tree clearing is to occur that it be between October 1 and March 31.

ODNR-DOW identified three federally listed mussels whose range includes the Project area (clubshell, northern riffleshell, and pondhorn). ODNR-DOW indicated that due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact these species.

ODNR-DOW identified one state listed fish whose range includes the Project area (greater redhorse). ODNR-DOW indicated that due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact this species.

ODNR-DOW indicated that this Project is within the range of one state-endangered bird species (upland sandpiper). Due to the location, the type of work proposed, and the type of habitat along the project route, this project is unlikely to have any impact on the upland sandpiper.

AECOM ecologists walked the Project survey area to classify the general vegetative communities crossed by the Project. The field survey was supplemented through the review of aerial photography. Based on ODNR-DOW guidance and the field survey, upland sandpiper nesting habitat within areas crossed by the Project were not identified. Agricultural land, residential landscaped areas, and urban areas are frequently mechanically maintained and do not provide suitable grassland habitat for nesting. These areas were observed to be disturbed and devoid of grasses or maintained such that grasses were too short to provide nesting habitat. Similarly, forested and wetland areas were observed with insufficient open grasslands to provide suitable habitat.

USFWS Coordination –

In an e-mail dated September 18, 2017, the USFWS provided comments on the Project with regard to federally listed threatened and endangered species that may occur within the Project vicinity. The USFWS indicated that there are no Federal wildlife refuges, wilderness areas, or critical habitat within the vicinity of the Project.

The USFWS noted that the Project lies within the range of the federally endangered Indiana bat (*Myotis sodalis*), and the federally threatened northern long-eared bat (*Myotis septentrionalis*). USFWS recommends that should the proposed site contain trees ≥ 3 inches dbh, that trees be saved wherever possible. If tree clearing cannot be avoided, USFWS recommends that tree removal occur between October 1st and March 31st to avoid adverse effects to Indian bats and northern long-eared bats during the brood-rearing months. Due to the project type, size, and location, the USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.

4.0 SUMMARY

The ecological survey of the Project survey area identified two wetlands and one perennial stream. The Little Ottawa River was assessed using the QHEI methodology (drainage area greater than 1 mi²) and was identified as Warmwater habitat.

Two wetlands were identified within the Project survey area. Wetland 01a is a Category 1, PEM wetland, and Wetland 01b is a Category 1, PFO wetland.

Based upon response letters from USFWS and ODNR, no impacts are expected to occur to federal or state listed species. Tree clearing between October 1 and March 31 is not expected to take the Indiana bat or northern long-eared bat. Similarly, restrictions to impacts to perennial streams will reduce impacts to aquatic state and federally listed species.

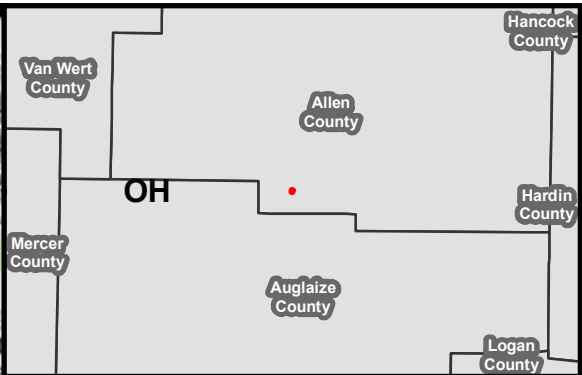
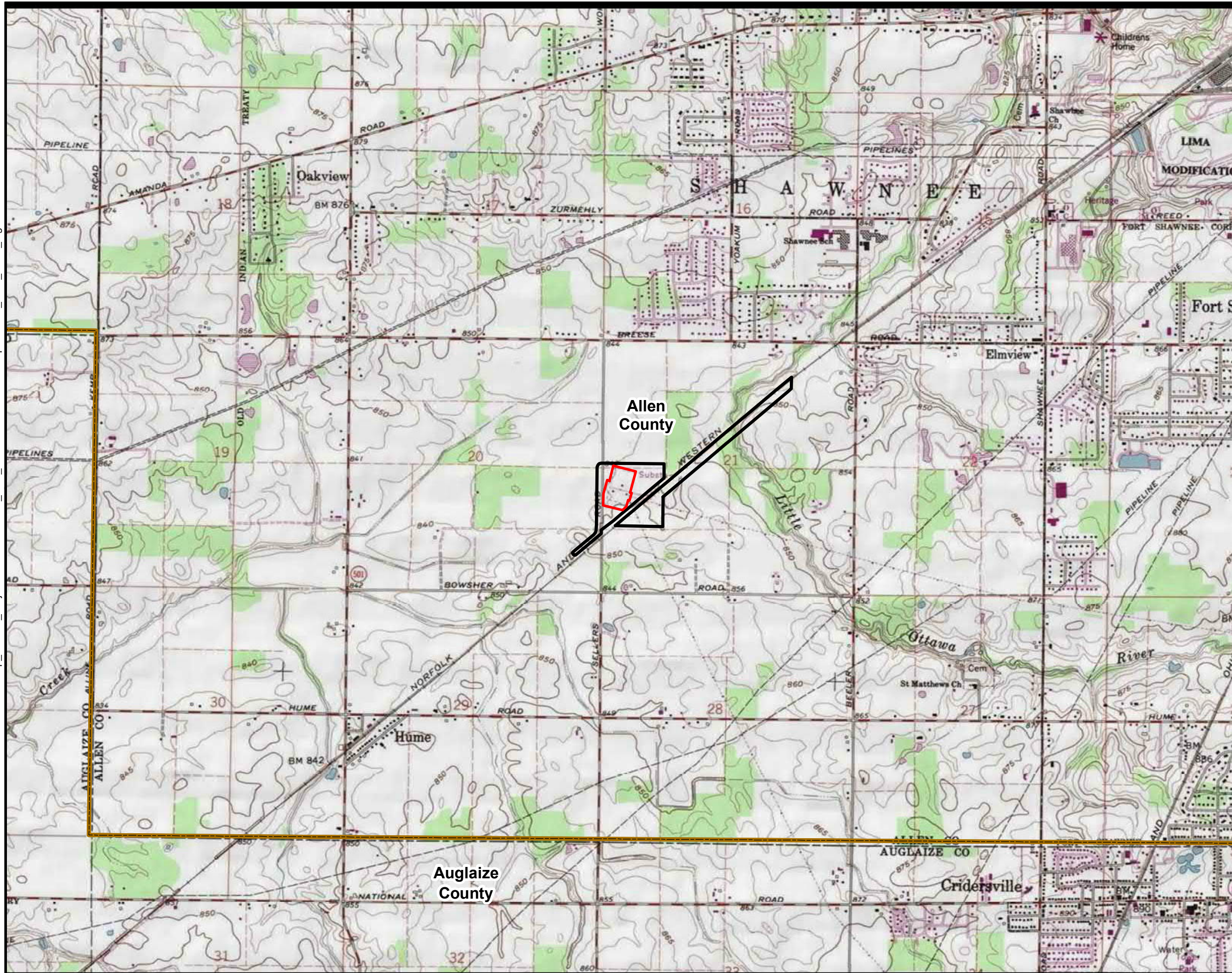
The reported results of the ecological survey conducted by AECOM on this Project are limited to the areas within the Project survey boundary provided in Figure 3: Wetland Delineation and Stream Assessment Map. Areas that fall outside of the Project survey boundary, including any portion of work pads or access roads, were not evaluated in the field and are not included in the reporting of this survey.

The information contained in this wetland delineation report is for a study area that may be much larger than the actual Project limits-of-disturbance; therefore, lengths and acreages listed in this report may not constitute the actual impacts of the Project defined in subsequent permit applications. If necessary, a separate report that identifies the actual Project impacts will be provided with agency submittals.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to natural processes or human impacts at the project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of AECOM.

5.0 REFERENCES

- Cowardin, L.M., V. Carter, F.C. Golet and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Office of Biological Services, U.S. Fish and Wildlife Service, Washington, D.C.
- Environmental Laboratory. 1987. *U.S. Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station: Vicksburg, Mississippi.
- Fritz, K.M., B.R. Johnson, and D.M. Walters. 2006. *Field Operations Manual for Assessing the Hydrologic Permanence and Ecological Condition of Headwater Streams*. EPA/600/ R-06/126. U.S. Environmental Protection Agency, Office of Research and Development, Washington DC.
- Kollmorgen Corporation. 2010. *Munsell Soil Color Charts*. Baltimore, Maryland.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. *Phytoneuron* 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X
- Mack, John J. 2001. *Ohio Rapid Assessment Method for Wetlands v. 5.0, User's Manual and Scoring Forms*. Ohio EPA Technical Report WET/2001-1. Ohio Environmental Protection Agency, Division of Surface Water, 401/Wetland Ecology Unit, Columbus, Ohio.
- Ohio EPA, 2012. *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams*. Version 3.0. Ohio EPA Division of Surface Water, Columbus, Ohio. 117 pp.
- Rankin, Edward T. 2006. *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)*. Ohio EPA Ecological Assessment Section, Division of Surface Water, Columbus, Ohio.
- U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter No. 05-05: Guidance on Ordinary High Water Mark Identification.
- U.S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ed. J. S. Wakely, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2015. National Hydric Soils List. <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>. Accessed 9/11/17.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2017. National Weather Service- Wetland Climate Evaluation Database (WETS Table). <http://www.wcc.nrcs.usda.gov/climate/wetlands.html>. Accessed 9/11/17.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2016. Web Soil Survey (GIS Shapefile). <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed 9/11/17.
- U.S. Fish and Wildlife Service. 2017. National Wetlands Inventory Classification De-coder. Available online at <https://fwsmapservices.wim.usgs.gov/decoders/SWL.aspx>. Accessed 9/11/17.



- LEGEND:
- Existing Southwest Lima Station Fence
 - Project Survey Area



0 2,000 4,000
Feet

BASE MAP SOURCE:
Copyright:© 2013 National Geographic Society, i-cubed

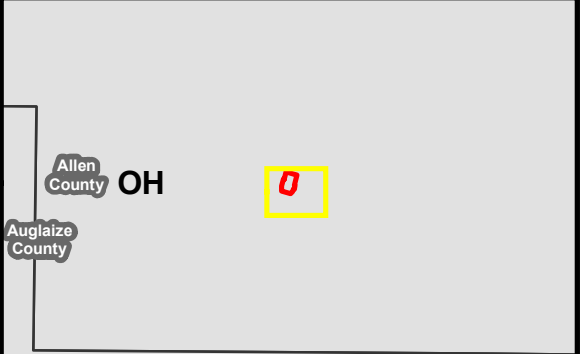
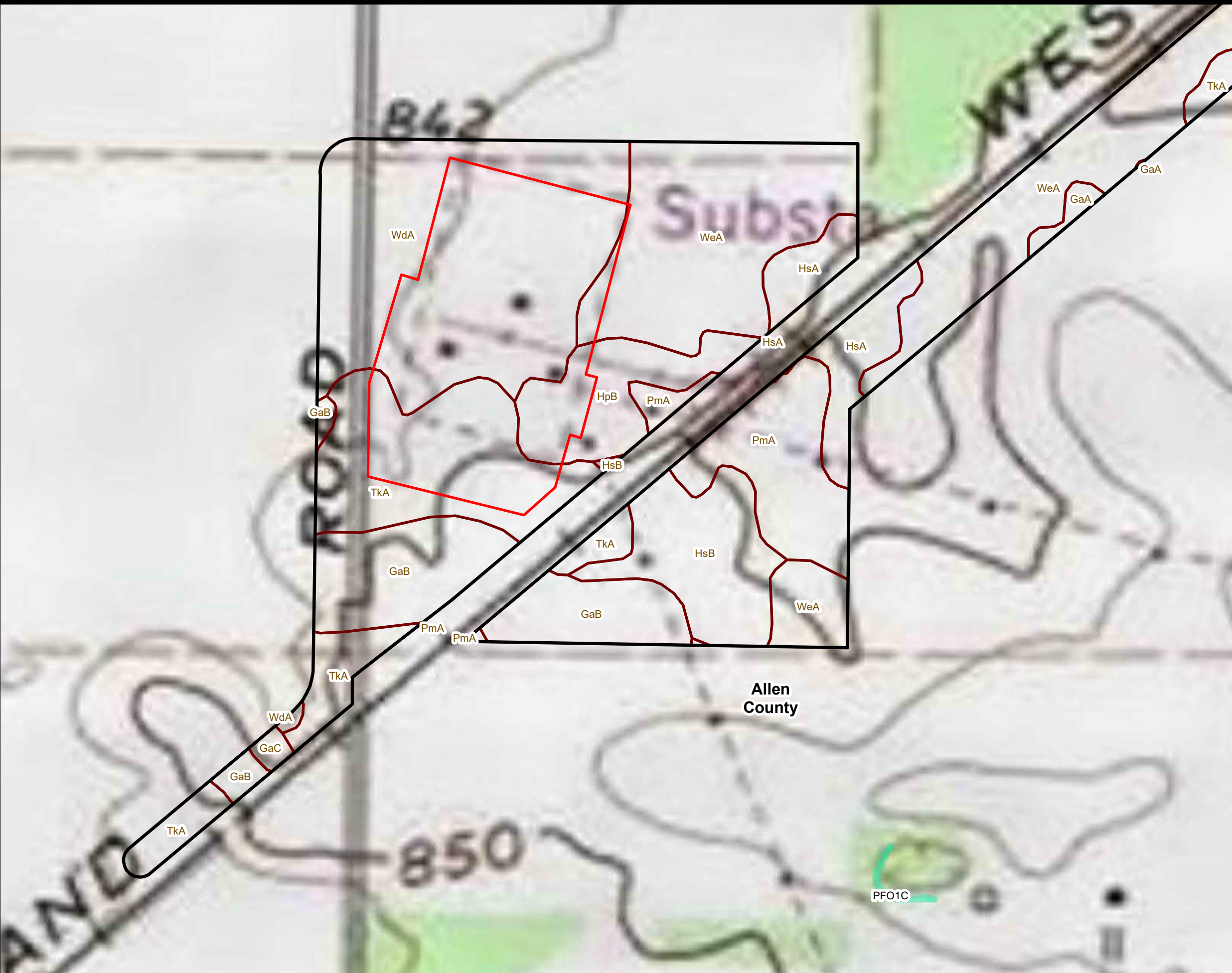


S.W. Lima 69 kV
Transmission Line

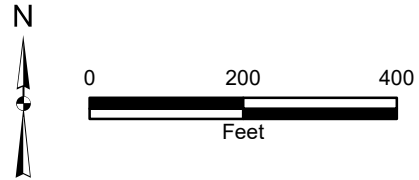
FIGURE 1
OVERVIEW MAP

JOB NO. 60553292





- LEGEND:
- Existing Southwest Lima Station Fence
 - Project Survey Area
 - NWI Wetland
 - Soil Map Unit
 - GaA;Gallman loam, 0 to 2 percent slopes
 - GaB;Gallman loam, 2 to 6 percent slopes
 - GaC;Gallman loam, 6 to 12 percent slopes
 - HpB;Houcktown sandy loam, 2 to 4 percent slopes
 - HsA;Houcktown silt loam, 0 to 2 percent slopes
 - HsB;Houcktown silt loam, 2 to 4 percent slopes
 - PmA;Pewamo silty clay loam, 0 to 1 percent slopes
 - TkA;Thackery loam, sandy substratum, 0 to 2 percent slopes
 - WdA;Westland clay loam, 0 to 1 percent slopes
 - WeA;Westland-Rensselaer complex, 0 to 1 percent slopes



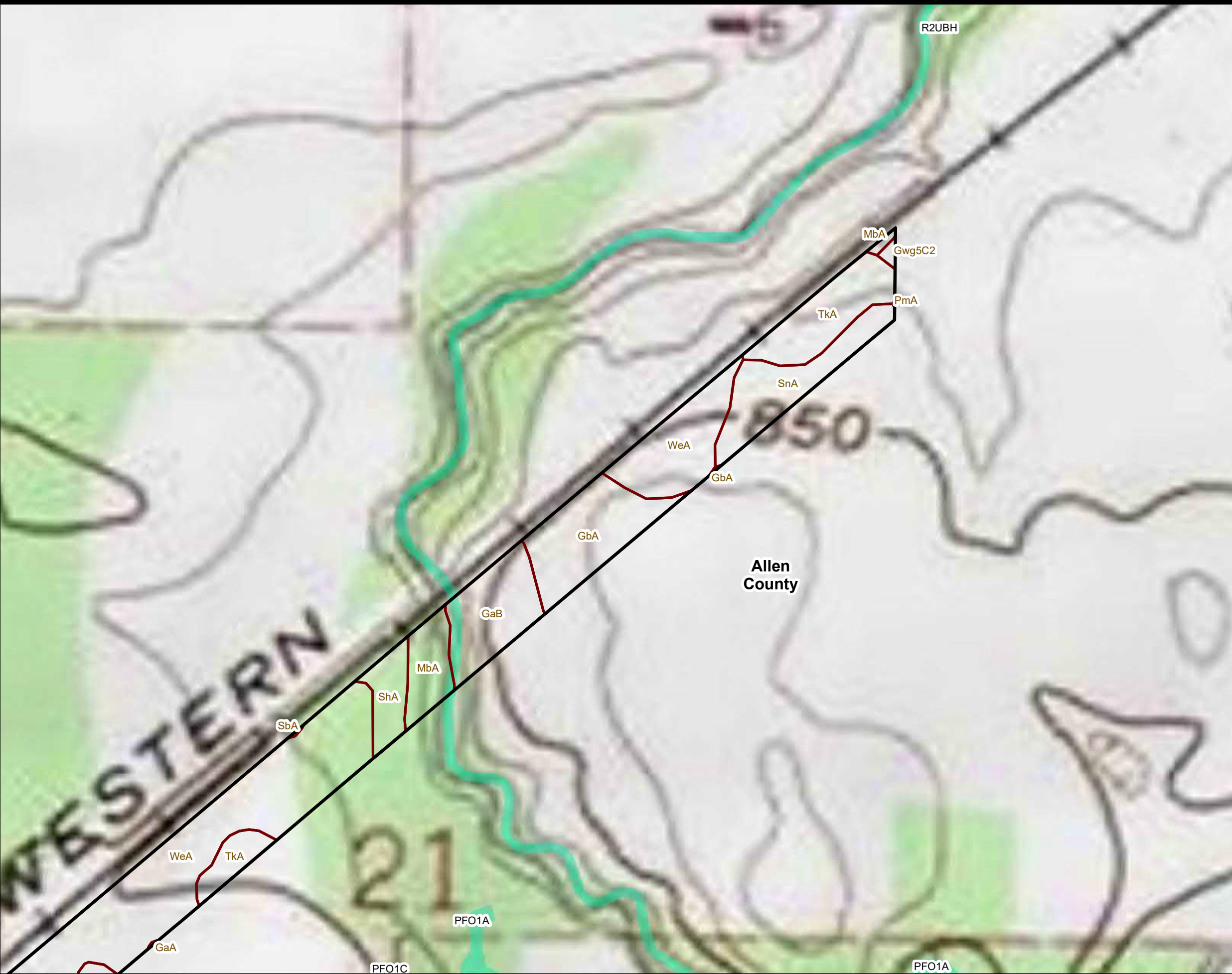
BASE MAP SOURCE:
Copyright:© 2013 National Geographic Society, i-cubed



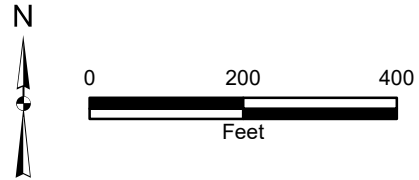
Southwest Lima
Expansion Project

FIGURE 2
SOIL MAP UNIT AND
NATIONAL WETLAND INVENTORY MAP

G:\Cincinnati\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60553292_AEP_SWL\ima\920-GIS or Graphics\SW_Lima_WDR_Fig2.mxd Date: 11/12/2019



- LEGEND:**
- Project Survey Area
 - NWI Wetland
 - Soil Map Unit
 - GaA; Gallman loam, 0 to 2 percent slopes
 - GaB; Gallman loam, 2 to 6 percent slopes
 - GbA; Gallman silt loam, 0 to 2 percent slopes
 - Gwg5C2; Glynwood clay loam, ground moraine, 6 to 12 percent slopes, eroded
 - MbA; Medway silt loam, 0 to 2 percent slopes, occasionally flooded
 - PmA; Pewamo silty clay loam, 0 to 1 percent slopes
 - SbA; Saranac silty clay loam, 0 to 1 percent slopes, rarely flooded
 - ShA; Shoals silt loam, 0 to 2 percent slopes, occasionally flooded
 - SnA; Sleeth silt loam, 0 to 2 percent slopes
 - TkA; Thackery loam, sandy substratum, 0 to 2 percent slopes
 - WeA; Westland-Rensselaer complex, 0 to 1 percent slopes



BASE MAP SOURCE:
Copyright:© 2013 National Geographic Society, i-cubed

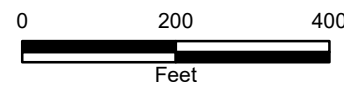
OHIO TRANSMISSION COMPANY

Southwest Lima Expansion Project

FIGURE 2
SOIL MAP UNIT AND
NATIONAL WETLAND INVENTORY MAP



- LEGEND:
- Existing Southwest Lima Station Fence
 - Project Survey Area
 - Wetland Data Point
 - Upland Data Point
 - Delineated Wetland

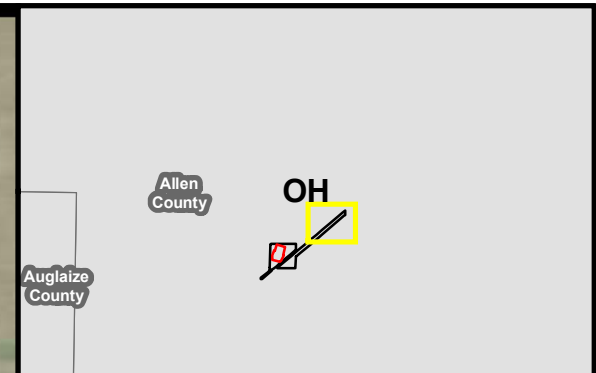


BASE MAP SOURCE:
© 2019 Microsoft Corporation © 2019 DigitalGlobe

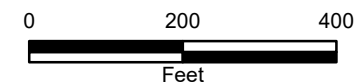
OHIO TRANSMISSION COMPANY

Southwest Lima Station
Expansion Project

FIGURE 3A
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP



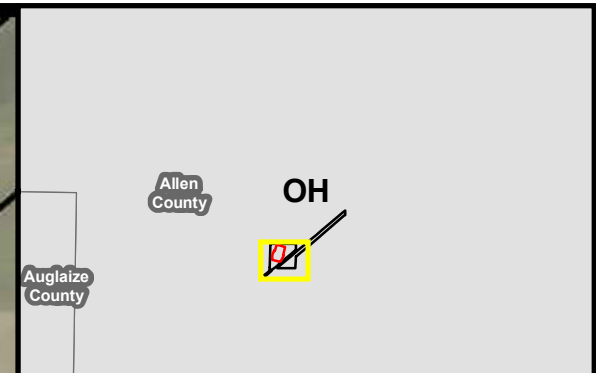
- LEGEND:
- Project Survey Area
 - Delineated Perennial Stream
 - Approximate Stream Location



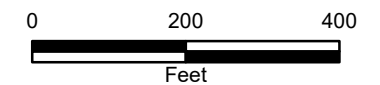
BASE MAP SOURCE:
© 2019 Microsoft Corporation © 2019 DigitalGlobe



FIGURE 3B
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP



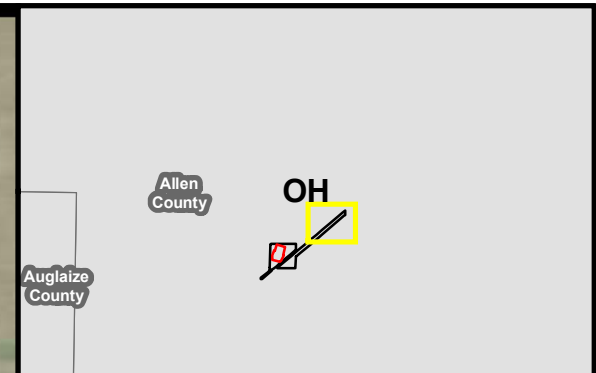
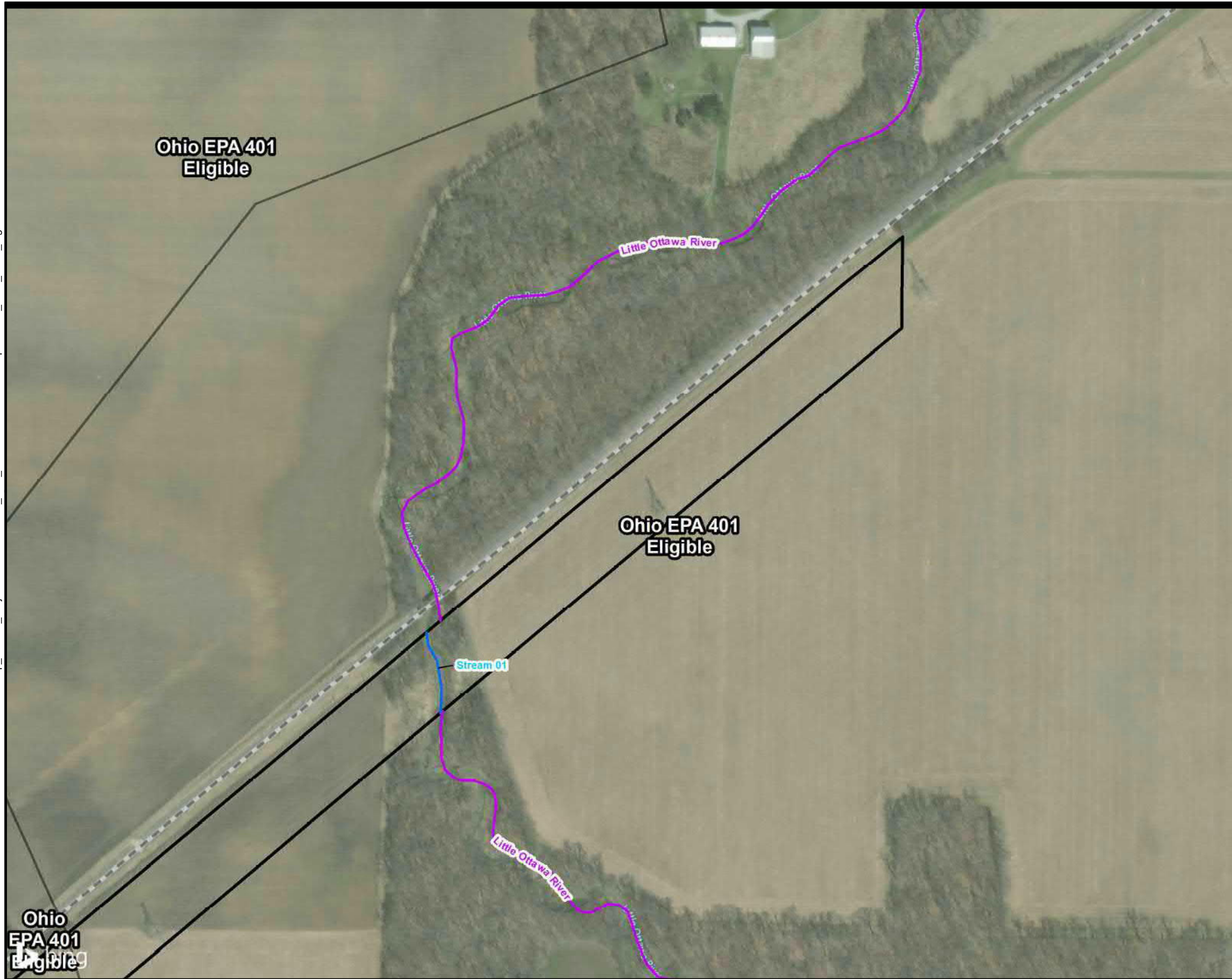
- LEGEND:
- Existing Southwest Lima Station Fence
 - Project Survey Area
 - OEPA Stream Eligibility:**
 - Eligible



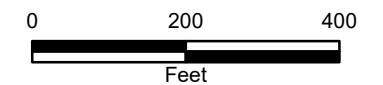
BASE MAP SOURCE:
© 2019 Microsoft Corporation © 2019 DigitalGlobe



FIGURE 4A
STREAM ELIGIBILITY MAP



- LEGEND:
- Project Survey Area
 - NHD Stream
 - Delineated Perennial Stream
- OEPA Stream Eligibility:
- Eligible

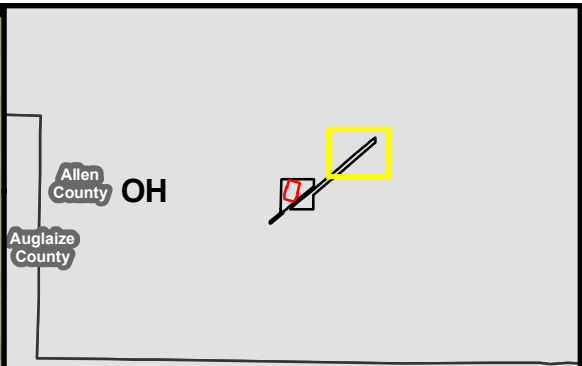
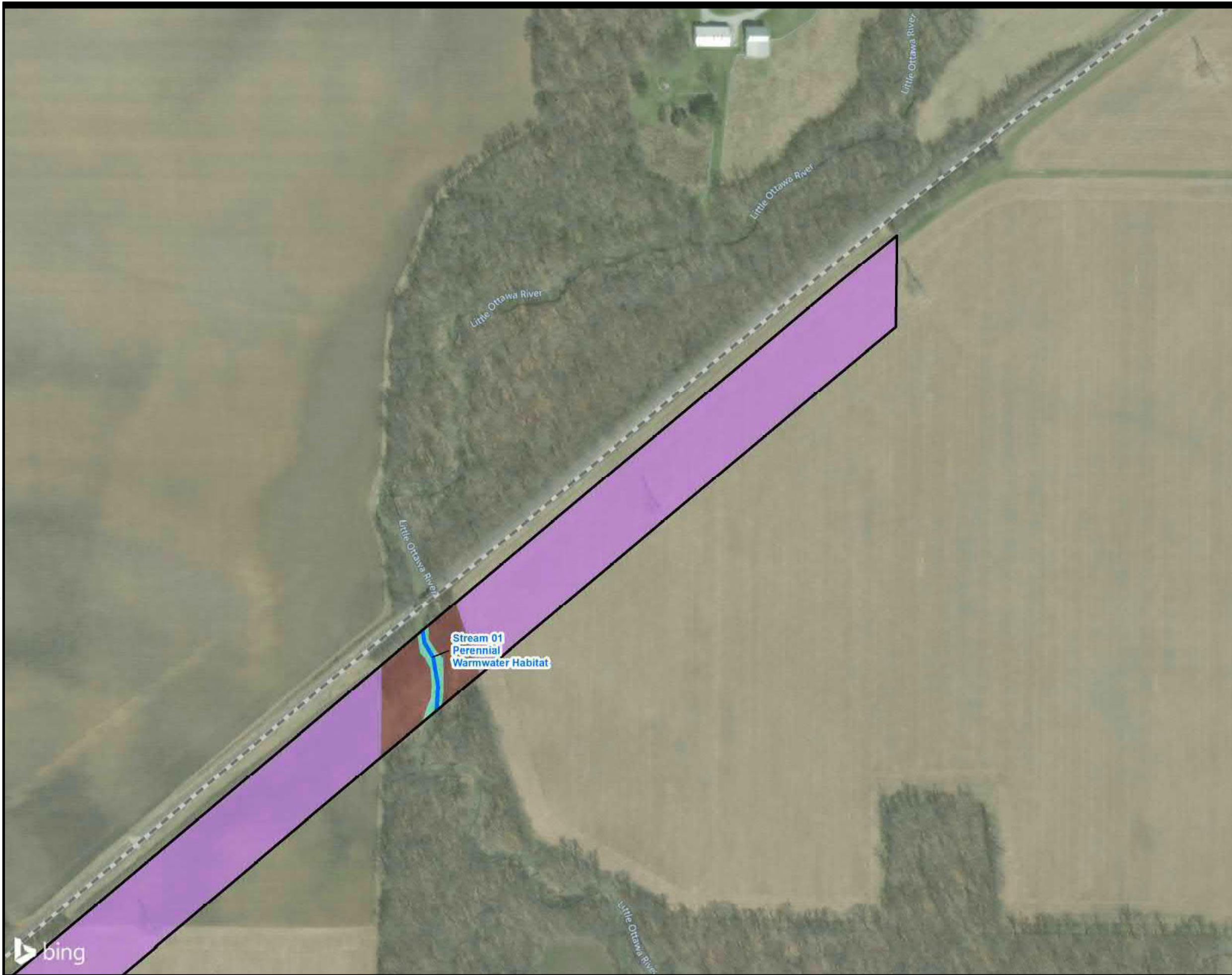


BASE MAP SOURCE:
© 2019 Microsoft Corporation © 2019 DigitalGlobe



FIGURE 4B
STREAM ELIGIBILITY MAP





- LEGEND:
- Project Survey Area
 - Agricultural Land
 - Stream/Wetland
 - Successional Woodland
 - Delineated Perennial Stream



0 200 400
Feet

BASE MAP SOURCE:
© 2019 Microsoft Corporation © 2019 DigitalGlobe



Southwest Lima
Expansion Project

FIGURE 5B
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

APPENDIX A**U.S. ARMY CORPS OF ENGINEERS WETLAND FORMS**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Southwest Lima Station Expansion City/County: Allen County Sampling Date: 06-Sep-17
 Applicant/Owner: AEP State: OH Sampling Point: w-jbl-090617-02a,b
 Investigator(s): JBL, JTT Section, Township, Range: S 21 T 4S R 6E
 Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave
 Slope: 0.0% 0.0 ° Lat.: 40.675391 Long.: -84.184715 Datum: _____
 Soil Map Unit Name: GaB, TkA NWI classification: NA

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 ☒ 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 ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: 2a is pem 2b is pfo		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. <u>Populus deltoides</u>	<u>40</u>	☒ 80.0%	FAC	
2. <u>Quercus palustris</u>	<u>10</u>	☒ 20.0%	FACW	
3. _____	<u>0</u>	☐ 0.0%		
4. _____	<u>0</u>	☐ 0.0%		
5. _____	<u>0</u>	☐ 0.0%		
	<u>50</u>	= Total Cover		
Prevalence Index worksheet:				
Total % Cover of: Multiply by:				
OBL species <u>0</u> x 1 = <u>0</u>				
FACW species <u>85</u> x 2 = <u>170</u>				
FAC species <u>130</u> x 3 = <u>390</u>				
FACU species <u>5</u> x 4 = <u>20</u>				
UPL species <u>0</u> x 5 = <u>0</u>				
Column Totals: <u>220</u> (A) <u>580</u> (B)				
Prevalence Index = B/A = <u>2.636</u>				
Hydrophytic Vegetation Indicators:				
☐ 1 - Rapid Test for Hydrophytic Vegetation				
☒ 2 - Dominance Test is > 50%				
☒ 3 - Prevalence Index is ≤ 3.0 ¹				
☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
☐ Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes ☒ No ☐				
Remarks: (Include photo numbers here or on a separate sheet.)				

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: w-ibl-090617-02a.b

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

Depth (inches)	Matrix			Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type ¹	Loc ²			
0-7	10YR	3/3	95	10YR	3/6	5	C	M	Loam	
7-12	10YR	5/3	80	7.5YR	3/6	20	C	M	Sandy Clay Loam	

¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

² Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

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

☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☒ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:
☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

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

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (minimum of two required)
☒ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Southwest Lima Station Expansion City/County: Allen County Sampling Date: 06-Sep-17
 Applicant/Owner: AEP State: OH Sampling Point: **upl-jbl-090617-01**
 Investigator(s): JBL, JTT Section, Township, Range: S 21 T 4S R 6E
 Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): none
 Slope: 0.0% 0.0 ° Lat.: 40.676264 Long.: -84.182530 Datum: _____
 Soil Map Unit Name: TkA NWI classification: NA

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 ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	
Remarks:		

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	
Tree Stratum (Plot size: _____)				
1. <u>Acer saccharum</u>	40	☒ 50.0%	FACU	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>16.7%</u> (A/B)
2. <u>Prunus serotina</u>	30	☒ 37.5%	FACU	
3. <u>Populus deltoides</u>	10	☐ 12.5%	FAC	
4. _____	0	☐ 0.0%		
5. _____	0	☐ 0.0%		
	80	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Elaeagnus umbellata</u>	20	☒ 57.1%	UPL	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>55</u> x 3 = <u>165</u> FACU species <u>100</u> x 4 = <u>400</u> UPL species <u>35</u> x 5 = <u>175</u> Column Totals: <u>195</u> (A) <u>750</u> (B) Prevalence Index = B/A = <u>3.846</u>
2. <u>Lonicera maackii</u>	15	☒ 42.9%	UPL	
3. _____	0	☐ 0.0%		
4. _____	0	☐ 0.0%		
5. _____	0	☐ 0.0%		
	35	= Total Cover		
Herb Stratum (Plot size: _____)				
1. <u>Equisetum arvense</u>	45	☒ 56.3%	FAC	Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is > 50% ☐ 3 - Prevalence Index is ≤ 3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Parthenocissus quinquefolia</u>	30	☒ 37.5%	FACU	
3. <u>Solidago gigantea</u>	5	☐ 6.3%	FACW	
4. _____	0	☐ 0.0%		
5. _____	0	☐ 0.0%		
6. _____	0	☐ 0.0%		
7. _____	0	☐ 0.0%		
8. _____	0	☐ 0.0%		
9. _____	0	☐ 0.0%		
10. _____	0	☐ 0.0%		
	80	= Total Cover		
Woody Vine Stratu (Plot size: _____)				
1. _____	0	☐ 0.0%		Hydrophytic Vegetation Present? Yes ☐ No ☒
2. _____	0	☐ 0.0%		
	0	= Total Cover		

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

¹Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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

Remarks:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Southwest Lima Station Expansion City/County: Allen County Sampling Date: 06-Sep-17
 Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-090617-02a,b
 Investigator(s): JBL, JTT Section, Township, Range: S 21 T 4S R 6E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____
 Slope: 0.0% 0.0 ° Lat.: 40.675142 Long.: -84.184237 Datum: _____
 Soil Map Unit Name: TkA NWI classification: NA

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 ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	
Remarks:		

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	0	☐ 0.0%		
2. _____	0	☐ 0.0%		
3. _____	0	☐ 0.0%		
4. _____	0	☐ 0.0%		
5. _____	0	☐ 0.0%		
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	☐ 0.0%		
2. _____	0	☐ 0.0%		
3. _____	0	☐ 0.0%		
4. _____	0	☐ 0.0%		
5. _____	0	☐ 0.0%		
	0	= Total Cover		
Herb Stratum (Plot size: _____)				
1. <u>Cirsium arvense</u>	15	☐ 15.0%	FACU	
2. <u>Solidago altissima</u>	60	☒ 60.0%	FACU	
3. <u>Bromus arvensis</u>	25	☒ 25.0%	FACU	
4. _____	0	☐ 0.0%		
5. _____	0	☐ 0.0%		
6. _____	0	☐ 0.0%		
7. _____	0	☐ 0.0%		
8. _____	0	☐ 0.0%		
9. _____	0	☐ 0.0%		
10. _____	0	☐ 0.0%		
	100	= Total Cover		
Woody Vine Stratu (Plot size: _____)				
1. _____	0	☐ 0.0%		
2. _____	0	☐ 0.0%		
	0	= Total Cover		

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

 Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is > 50%
☐ 3 - Prevalence Index is ≤ 3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: upl-ibl-090617-02a.b

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR	3/2	100				Sandy Loam	

¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Muck Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

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

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if observed):

Type:
Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒
Water Table Present? Yes ☐ No ☒
Saturation Present? (includes capillary fringe) Yes ☐ No ☒

Depth (inches):
Depth (inches):
Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

US Army Corps of Engineers

Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: SW Lima Station Expansion City/County: Allen Sampling Date: 17-Oct-18
 Applicant/Owner: Aep State: OH Sampling Point: upl-jbl-101718-01
 Investigator(s): twl,jbl Section, Township, Range: S 21 T 4S R 6E
 Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): convex
 Slope: 0.0% 0.0 ° Lat.: 40.677097 Long.: -84.182149 Datum: NAD 83
 Soil Map Unit Name: HpB 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 ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	
Remarks: adjacent to wetland ditch		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
3. _____	0	☐ 0.0%	_____
4. _____	0	☐ 0.0%	_____
5. _____	0	☐ 0.0%	_____
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
3. _____	0	☐ 0.0%	_____
4. _____	0	☐ 0.0%	_____
5. _____	0	☐ 0.0%	_____
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. <u>Dipsacus fullonum</u>	20	☒ 21.1%	FACU
2. <u>Festuca arundinacea</u>	25	☒ 26.3%	FACU
3. <u>Trifolium pratense</u>	20	☒ 21.1%	FACU
4. <u>Symphotrichum ericoides</u>	15	☐ 15.8%	FACU
5. <u>Tridens flavus</u>	5	☐ 5.3%	UPL
6. <u>Daucus carota</u>	10	☐ 10.5%	UPL
7. _____	0	☐ 0.0%	_____
8. _____	0	☐ 0.0%	_____
9. _____	0	☐ 0.0%	_____
10. _____	0	☐ 0.0%	_____
	95	= Total Cover	
Woody Vine Stratu (Plot size: _____)			
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>95</u>	(A) <u>395</u> (B)

Prevalence Index = B/A = 4.158

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is > 50%

☐ 3 - Prevalence Index is ≤ 3.0 ¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: upl-ibl-101718-01

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	7.5YR	3/1	100					
2-15	7.5YR	4/4	50					disturbd
	7.5YR	5/1	50					

¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ 5 cm Mucky Peat or Peat (S3)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils ³ :

☐ Coast Prairie Redox (A16)

☐ Dark Surface (S7)

☐ Iron Manganese Masses (F12)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

☐ Surface Water (A1)

☐ High Water Table (A2)

☐ Saturation (A3)

☐ Water Marks (B1)

☐ Sediment Deposits (B2)

☐ Drift Deposits (B3)

☐ Algal Mat or Crust (B4)

☐ Iron Deposits (B5)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Sparsely Vegetated Concave Surface (B8)

☐ Water-Stained Leaves (B9)

☐ Aquatic Fauna (B13)

☐ True Aquatic Plants (B14)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Gauge or Well Data (D9)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Stunted or Stressed Plants (D1)

☐ Geomorphic Position (D2)

☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present?
(includes capillary fringe) Yes ☐ No ☒

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: SW Lima Station Expansion City/County: Allen Sampling Date: 30-Oct-18
 Applicant/Owner: Aep State: OH Sampling Point: upl-jbl-103018-01
 Investigator(s): jbl Section, Township, Range: S 21 T 4S R 6E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat
 Slope: 0.0% 0.0 ° Lat.: 40.6769999 Long.: -84.182123 Datum: NAD 83
 Soil Map Unit Name: HpB 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 ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks:	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
3. _____	0	☐ 0.0%	_____
4. _____	0	☐ 0.0%	_____
5. _____	0	☐ 0.0%	_____
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' _____)			
1. Juniperus virginiana	5	☒ 100.0%	FACU
2. _____	0	☐ 0.0%	_____
3. _____	0	☐ 0.0%	_____
4. _____	0	☐ 0.0%	_____
5. _____	0	☐ 0.0%	_____
	5	= Total Cover	
Herb Stratum (Plot size: 10' _____)			
1. Tridens flavus	5	☐ 4.8%	UPL
2. Juncus tenuis	20	☒ 19.0%	FAC
3. Solidago canadensis	15	☒ 14.3%	FACU
4. Symphyotrichum novae-angliae	10	☐ 9.5%	FACW
5. Setaria pumila	10	☐ 9.5%	FAC
6. Cyperus esculentus	15	☒ 14.3%	FACW
7. Symphyotrichum ericoides	15	☒ 14.3%	FACU
8. Glyceria striata	15	☒ 14.3%	OBL
9. _____	0	☐ 0.0%	_____
10. _____	0	☐ 0.0%	_____
	105	= Total Cover	
Woody Vine Stratu (Plot size: _____)			
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>110</u> (A)	<u>320</u> (B)

Prevalence Index = B/A = 2.909

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is > 50%

☒ 3 - Prevalence Index is ≤ 3.0 ¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: upl-ibl-103018-01

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

Depth (inches)	Matrix			Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type ¹	Loc ²			
0-5	10YR	4/3	98	10YR	5/6	2	C	M	Clay Loam	disturbed
5-17	2.5YR	5/3	80	10YR	4/6	20	C	M	Clay Loam	

¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ 5 cm Mucky Peat or Peat (S3)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils ³:

☐ Coast Prairie Redox (A16)

☐ Dark Surface (S7)

☐ Iron Manganese Masses (F12)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

☐ Surface Water (A1)

☒ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1)

☐ Sediment Deposits (B2)

☐ Drift Deposits (B3)

☐ Algal Mat or Crust (B4)

☐ Iron Deposits (B5)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Sparsely Vegetated Concave Surface (B8)

☐ Water-Stained Leaves (B9)

☐ Aquatic Fauna (B13)

☐ True Aquatic Plants (B14)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Gauge or Well Data (D9)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Stunted or Stressed Plants (D1)

☐ Geomorphic Position (D2)

☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present?
(includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

4

Depth (inches):

1

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: AEP Southwest Lima Station City/County: Allen Sampling Date: 11-Oct-19
Applicant/Owner: AEP Ohio Transmission Company State: OH Sampling Point: W-MRK-001 UPL
Investigator(s): M.R.Kline, T.Ciskowski Section, Township, Range: S T 4S R 6E
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat
Slope: 1.0% / 0.6 ° Lat.: 40.678180827 Long.: -84.184163925 Datum: NAD83
Soil Map Unit Name: WdA; Westland clay loam, 0 to 1 percent slopes NWI classification: NA
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 ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: Upland data point for W-191011-MRK-001. Surrounding land use is agriculture and existing sub station facility.	

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: <u>None</u>)			
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
3. _____	0	☐ 0.0%	_____
4. _____	0	☐ 0.0%	_____
5. _____	0	☐ 0.0%	_____
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: <u>None</u>)			
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
3. _____	0	☐ 0.0%	_____
4. _____	0	☐ 0.0%	_____
5. _____	0	☐ 0.0%	_____
	0	= Total Cover	
Herb Stratum (Plot size: <u>5' radius</u>)			
1. <u>Lolium perenne</u>	40	☒ 22.2%	FACU
2. <u>Dactylis glomerata</u>	40	☒ 22.2%	FACU
3. <u>Festuca pratensis</u>	40	☒ 22.2%	FACU
4. <u>Achillea millefolium</u>	25	☐ 13.9%	FACU
5. <u>Trifolium pratense</u>	25	☐ 13.9%	FACU
6. <u>Taraxacum officinale</u>	10	☐ 5.6%	FACU
7. _____	0	☐ 0.0%	_____
8. _____	0	☐ 0.0%	_____
9. _____	0	☐ 0.0%	_____
10. _____	0	☐ 0.0%	_____
	180	= Total Cover	
Woody Vine Stratum (Plot size: <u>None</u>)			
1. _____	0	☐ 0.0%	_____
2. _____	0	☐ 0.0%	_____
	0	= Total Cover	
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>0.0%</u> (A/B)			
Prevalence Index worksheet:			
Total % Cover of: Multiply by:			
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>180</u>	x 4 =	<u>720</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>180</u>	(A)	<u>720</u> (B)
Prevalence Index = B/A = <u>4.000</u>			
Hydrophytic Vegetation Indicators:			
☐ 1 - Rapid Test for Hydrophytic Vegetation			
☐ 2 - Dominance Test is > 50%			
☐ 3 - Prevalence Index is ≤3.0 ¹			
☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Hydrophytic Vegetation Present? Yes ☐ No ☒			
Remarks: (Include photo numbers here or on a separate sheet.)			

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: W-MRK-001 UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR	3/3	100				Silt Loam	

1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

Location: 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)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ 5 cm Mucky Peat or Peat (S3)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ Coast Prairie Redox (A16)

☐ Dark Surface (S7)

☐ Iron Manganese Masses (F12)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Yes

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

☐ Surface Water (A1)

☐ High Water Table (A2)

☐ Saturation (A3)

☐ Water Marks (B1)

☐ Sediment Deposits (B2)

☐ Drift Deposits (B3)

☐ Algal Mat or Crust (B4)

☐ Iron Deposits (B5)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Sparsely Vegetated Concave Surface (B8)

☐ Water-Stained Leaves (B9)

☐ Aquatic Fauna (B13)

☐ True Aquatic Plants (B14)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Gauge or Well Data (D9)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Stunted or Stressed Plants (D1)

☐ Geomorphic Position (D2)

☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?

Yes

No

Depth (inches):

Water Table Present?

Yes

No

Depth (inches):

Saturation Present?
(includes capillary fringe)

Yes

No

Depth (inches):

Wetland Hydrology Present?

Yes

No

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

Remarks:

No source of hydrology observed.

APPENDIX B**OEPA WETLAND ORAM FORMS**

Wetland 01ab

Site: AEP Southwest Lima Station	Rater(s): J.Lubbers, J. Tucker	Date: 9/6/2017
----------------------------------	--------------------------------	----------------

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)

Field Id:

w-jbl-090617-02a,b

0.20 acres

7	8
---	---

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), shrubland, 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)

6.5	14.5
-----	------

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 one.

- ☐ >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

- | | |
|---|---|
| ☒ ditch | ☐ point source (nonstormwater) |
| ☐ tile | ☒ filling/grading |
| ☐ dike | ☒ road bed/RR track |
| ☐ weir | ☐ dredging |
| ☐ stormwater input | ☐ Other: |

6	20.5
---	------

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

- | | |
|---|---|
| ☒ mowing | ☒ shrub/sapling removal |
| ☐ grazing | ☐ herbaceous/aquatic bed removal |
| ☒ clearcutting | ☒ sedimentation |
| ☒ selective cutting | ☐ dredging |
| ☐ woody debris removal | ☐ farming |
| ☐ toxic pollutants | ☐ nutrient enrichment |

20.5

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Wetland 01ab

Site: AEP Southwest Lima Station

Rater(s): J.Lubbers, J. Tucker

Date:

9/6/2017

20.5

subtotal this page

0 20.5

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 5 Qualitative Rating (-10)

2 22.5

max 20pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☒ 2 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

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.

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

Field Id:

w-jbl-090617-02a,b

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 1 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 2 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 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species

Native spp are dominant component of the vegetation, mod 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 to

A predominance of native species, with nonnative spp high 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

Category 1

22.5 GRAND TOTAL(max 100 pts)

APPENDIX C**DELINEATED FEATURES PHOTOGRAPHS**

C1 - DELINEATED WETLANDS

Client Name:

AEP

Site Location:

Southwest Lima Station Expansion Project

Project No.

60553292

Date:

September 16,
2017

Description:

Wetland 01a

PEM wetland

Category 1



Facing North



Facing East



Facing South



Facing West



Soil Pit



PHOTOGRAPHIC RECORD WETLANDS

Client Name:

AEP

Site Location:

Southwest Lima Station Expansion Project

Project No.

60553292

Date:

September 16,
2017

Description:

Wetland 01b

PFO wetland

Category 1



Facing East



Facing South

C2 - DELINEATED STREAMS

Client Name:

AEP

Site Location:

Southwest Lima Station Expansion Project

Project No.

60553292

Date:

September 16.
2017

Description:

Little Ottawa
River

QHEI Stream

Perennial



Facing Upstream



Facing Downstream

APPENDIX D**CORRESPONDENCE LETTERS FROM USFWS and ODNR**

Geckle, Aaron

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>
Sent: Monday, September 18, 2017 12:46 PM
To: Geckle, Aaron
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: Southwest Lima Station Expansion Project, Allen Co. OH



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



TAILS# 03E15000-2017-TA-1936

Dear Mr. Geckle,

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

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

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

considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

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

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

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

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

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state

listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Dan Everson". The signature is fluid and cursive, with the first name "Dan" being more prominent than the last name "Everson".

Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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

December 1, 2017

Aaron Geckle
AECOM
525 Vine Street, Suite 1800
Cincinnati, Ohio 45202

Re: 17-694; Southwest Lima Station Expansion Project

Project: The proposed project involves the expansion of the existing Southwest Lima Station.

Location: The proposed project is located in Shawnee 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 records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. The review was performed on the project area you specified in your request as well as an additional one mile radius. Records searched date from 1980.

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

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

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

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

The project is within the range of the 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, this project is not likely to impact these species.

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

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

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

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

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

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

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

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

3/1/2022 11:44:20 AM

in

Case No(s). 22-0116-EL-BLN

Summary: Notice Letter of Notification electronically filed by Hector Garcia-Santana
on behalf of Ohio Power Company