

Construction Notice for Fostoria Central Station Expansion Project



PUCO Case No. 21-0899-EL-BNR

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

Submitted by:
Ohio Power Company

September 1, 2021

CONSTRUCTION NOTICE

Ohio Power Company's Fostoria Central Station Expansion 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.

4906-6-05(B) General Information

B(1) Project Description

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

The Company is proposing the Fostoria Central Station Expansion Project ("Project"), which is located in Washington Township, Hancock County, Ohio. The Project involves expanding the existing Fostoria Central Station for construction of a new perimeter fence and inner fence system to improve security of the station and its assets. The Project will expand the existing station by 1.76-acres and will be constructed on property owned by Ohio Power Company and no transmission line adjustments are proposed as part of this Project.

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

The Project meets the requirements for a Construction Notice (CN) because it is within the types of projects defined by Item (4)(a) of Appendix A to O.A.C. 4906-1-01 Application Requirement Matrix for Electric Power Transmission Lines:

(4) Constructing additions to existing electric power transmission stations or converting distribution station to transmission stations where:

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

The PUCO Case Number for this Project is 21-0899-EL-BNR.

B(2) Statement of Need

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

Ohio Adm. Code 4906-6-05(B)(2) applies only to electric power, gas, and natural gas transmission lines and is not applicable to this station expansion project. Nonetheless, this Project is necessary to enable the Company to add equipment and infrastructure that will bring the Fostoria Central Station up to current resiliency, safety, operational performance, and Company security standards.

Because this Project results in no operational, modeling, or topology change, the Project will not be included in the PJM Regional Transmission Expansion Plan. PJM is, however, aware of the Project and has been consulted. This Project is also not included in Form FE-T10 of AEP Ohio's or The Company's 2020 Long-Term Forecast Reports because Fostoria Central Station is an existing substation. Fostoria Central Station was included as an existing substation in AEP Ohio's 2021 Form FE-T8, on page 67 of 116.

B(3) Project Location

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

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

The Project directly impacts the following existing facilities:

- Fostoria Central Station

B(4) Alternatives Considered

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

The proposed Project is a minimal expansion to an existing transmission station on agricultural land to accommodate a wider fence footprint, so it was determined to have minimal impacts associated with socioeconomic, ecological, construction, or engineering of the Project. As detailed in Section B (8) through B (10)(f), the proposed expansion will occur within property already owned by the Company, existing residential or institutions are not within 100-feet, expansion is not situated within areas designated as Agricultural District Lands or would have an effect on historic properties and resources, state and/or federal listed species, and would not require temporary and/or permanent disturbances to wetland or streams. Therefore, a selection of an alternative site location within this region would not only likely result in considerably greater socioeconomic and environmental impacts but it would also not meet the purpose and need of this Project as defined in Section B (2).

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 also maintains a website (<http://aepttransmission.com/ohio/>) which provides the public access to an electronic copy of this CN and the public notice for this CN. An electronic copy of the CN 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 planned to begin the early first quarter of 2022, and the anticipated in-service date will be approximately October 2022.

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 on a map of 1:24,000-scale (1-inch equals 2,000 feet) on the United States Geological Survey (USGS) 7.5-minute topographic map of the Fostoria (1972) and Arcadia (1972) quadrangles. Figure 2 depicts the Project area on ESRI World Imagery at a 1:2,400-scale (1-inch equals 200 feet). The Google Maps Imagery is dated August 2021.

To visit the Project location from Columbus, take I-71 N for 23.3 miles to OH-37 E/US-36E/Rte 37E. Take Exit 131 from I-71 N. Use the left 2 lanes to turn left onto OH-37E/US-36E/State Rte 37E and travel for 6.8 miles. Make a slight right onto E Central Ave for 0.9 miles and turn right to merge onto US-23 toward Marion for 0.2 miles. Merge onto US-23 N and continue to follow 54.1 miles, continuing onto OH-15 W. Turn right onto Co Hwy 95/Township Hwy 95 and travel for 1.2 miles. Turn left onto OH-568 W and travel for 3.5 miles. Turn right onto Co Rd 330 and travel for 8.6 miles. Turn right onto OH-12 E and travel for 0.9 miles. Turn left onto Township Rd 261 and travel for 0.3 miles. Turn right at the first cross street onto Township Rd 218. The approximate address is 21825 Township Road 218, Fostoria, Ohio 44830. The Project location is mapped at a latitude of 41.138820 and longitude of -83.461152 decimal degrees.

B(8) Property Agreements

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

The proposed Project will be constructed on the Company's property. There are no easements, options, and/or land use agreements that are necessary to complete the perimeter and inner fence line expansion required for the operation of this existing facility.

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.

Fostoria Central Station will feature a new fence perimeter. The new fence will feature technology throughout station site to improve the security of the station site and its assets. The fence will be approximately 16 feet tall and constructed out of high strength steel. The operating characteristics of the Fostoria Central Station will not change as result of the Project and no changes to the existing transmission lines will be required to accommodate the new fence.

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$6,467,639 with a class 4 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) Operating 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. The Project is situated within Washington Township in Hancock County. The Project vicinity is currently rural in nature and is comprised primarily of agricultural land used for row crops, and lesser amounts of landscaped areas with scattered residences, scattered commercial facilities, and a railroad line located to the south of the Project. The Project is located approximately 1.5 miles outside the town of Fostoria. The substation is located on property owned by the Company.

B(10)(b) Agricultural Land Information

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

The Project is not expected to impact Agricultural District Land. The Hancock County auditor was contacted regarding agricultural district parcels in Washington Township in August 12, 2021 and no agricultural districts are located within the Project area.

B(10)(c) Archaeological and Cultural Resources

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

The Company's consultant received correspondence from the Ohio State Historic Preservation Office (OHPO) on November 6, 2017 in response to a Phase I Archaeological and History/Architecture Investigations that were completed in 2017 by the Company's consultant. The OHPO agreed with the Company's consultant that report that indicated the Project, as proposed, will have no effect on historic properties and that no further coordination with their office is necessary. A copy of the OHPO response can be found under **Appendix B**.

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

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

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 (SWPPP) to minimize erosion and control sediment to protect surface water quality during storm events.

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 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.

AECOM conducted a rare, threatened, and endangered species review for areas within the Project survey area. A summary of the agency coordination is provided below. Response letters were received by AECOM from the Ohio Division of Natural Resources (ODNR) and United States Fish and Wildlife Service (USFWS) in 2017 and due to the lapse of time AECOM has submitted additional requests to the agencies on August 3, 2021. The USFWS response was provided on August 9, 2021 and identified the potential for both Indiana bat (*Myotis sodalist*; federally endangered) and northern long-eared bat (*Myotis septentrionalis*; federally threatened) as occurring within the Project area.

As the ODNR response from the August 3, 2021 request has not been received, the original 2017 response of the Project was utilized for this analysis. Upon receipt and identification of changes of the ODNR response, the company can provide an addendum report. Based on the received response from the ODNR on December 6, 2017, the ODNR's Division of Wildlife (DOW) indicated the potential presence of Indiana bat (state endangered), northern long eared bat (state threatened), several state endangered or threatened freshwater mussel species (Clubshell [*Pleurobema clava*], Purple lilliput [*Toxolasma lividus*], Rayed bean [*Villosa fabalis*], Pondhorn [*Unio merus tetralasmus*], and Black sandshell [*Ligumia recta*]), and banded killifish (*Fundulus diaphanus menona*) as occurring within the Project area. Additional details regarding agencies coordination is provided in **Appendix C** and details on each species provided within **Appendix D**.

Based on the responses received by both the USFWS and ODNR for the listed bat species (Indiana and northern long eared bat), suitable habitat is associated with trees with greater than 3 inches diameter at

breast height (dbh) and removal of trees shall be completed between October 1 and March 31 to avoid adverse effects to the species. Since the proposed expansion is located within an existing agricultural field, the Company does not require tree clearing activities as part of this Project and therefore, no impacts to these species are anticipated.

Additionally, the ODNR response indicated that the freshwater mussel and fish species are associated aquatic environments such as streams and lakes. As further detailed in Section B(10)(f), during field review only one palustrine wetland was identified that will be avoided and no streams, lakes, or ponds were identified within the Project study area. Due to the absence of habitat for these species within the Project area, it is unlikely that the Project would result in adverse effects to these listed species.

B(10)(f) Areas of Ecological Concern

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

The Company's consultant prepared a Wetland Delineation and Stream Assessment Report, see **Appendix D**. The ecological survey of the Project survey study area identified one wetland in the study area. No permanent and/or temporary impacts to streams or wetlands are anticipated as a result of the fence line expansion. A SWPPP will be prepared prior to construction.

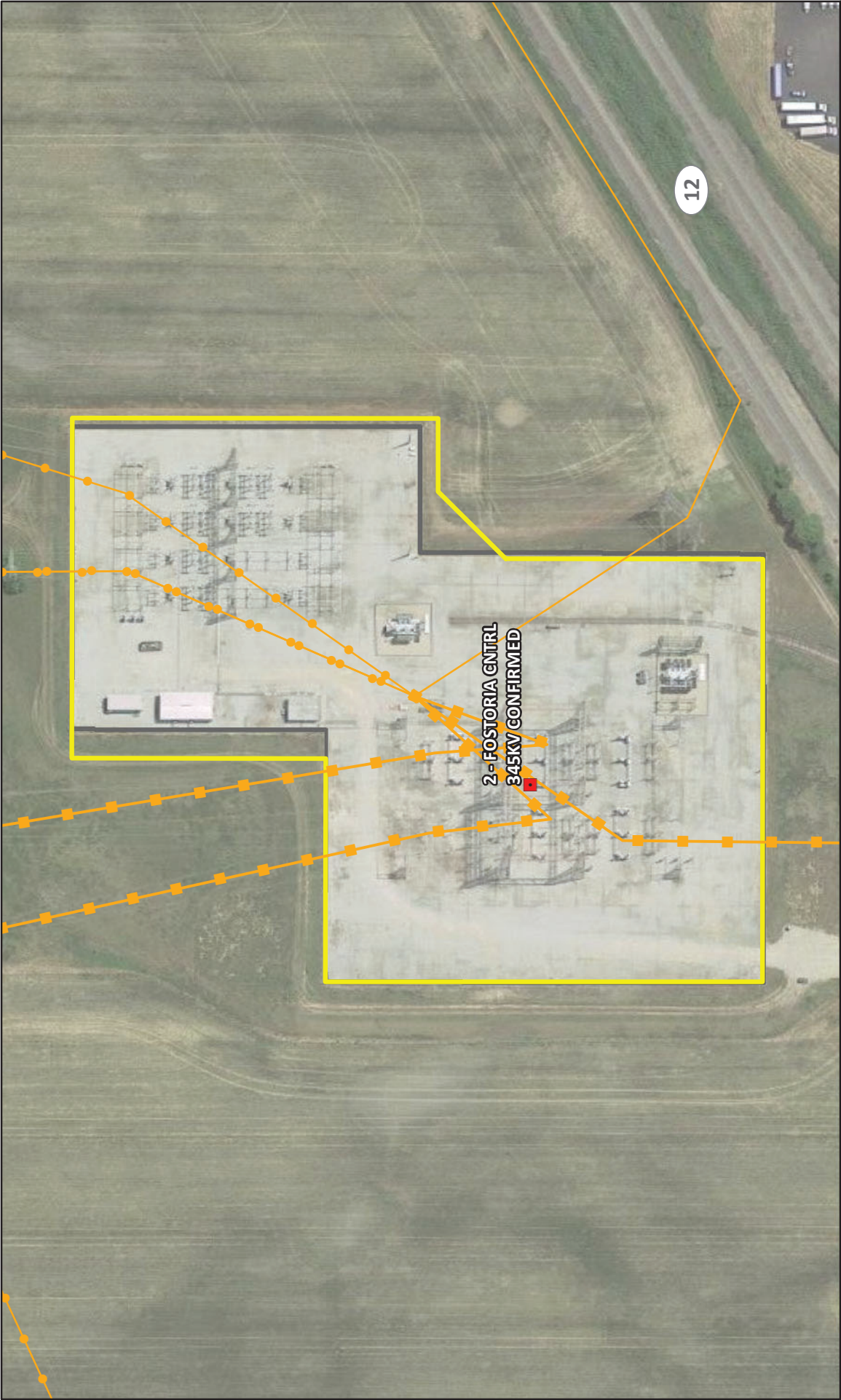
Based on review of the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL), the Project is not mapped in a 100-year floodplain or a floodway.

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 Fence
- Existing Fence
- Existing Transmission Line**
- 69 kV
- 138 kV
- 345 kV and Above

LOCATION MAP



**FIGURE 2
AERIAL MAP**



AEP OHIO
AEP Energy

**Fostoria Central Station
Expansion Project**

0 100 200

Feet

Data Sources: AEP (2021),
Google (2018),
PowerMap (2010)

Coordinate System:
State Plane Ohio North
NAD 83



August 17, 2021

Appendix B SHPO Coordination



In reply refer to
2017-HAN-40181

November 6, 2017

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

**RE: Fostoria Central 345kV Station Fence Replacement Project, Washington Township,
Hancock County, Ohio**

Dear Mr. Weller:

This letter is in response to the correspondence received on October 12, 2017 regarding the proposed Fostoria Central 345kV Station Fence Replacement Project, Washington Township, Hancock 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 8.64 ha (21.34 ac) Fostoria Central 345kV Station Fence Replacement Project in Washington Township, Hancock County, Ohio* by Weller & Associates, Inc. (2017).

A literature review, visual inspection, shovel probe, and shovel test unit excavation was completed as part of the investigations. No previously inventoried Ohio Archaeological Inventory (OAI) site is located within the project area. No archaeological sites were identified during this survey. Based on the information provided, we agree with your determination of no historic properties affected and no further archaeological work is necessary.

The following comments pertain to the *History/Architecture Investigations for the 8.64 ha (21.34 ac) Fostoria Central 345kV Station Fence Replacement Project in Washington Township, Hancock 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. In total, ten individual properties of fifty years or age or older were identified within the project APE that may have a direct line-of-sight to the project.

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

The results of the architectural investigation identified no historic properties located within the APE that exhibit potential significance for inclusion in the National Register of Historic Places. 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

RPR Serial No: 1070832, 1070833

Mr. Ryan Weller
Page 2
November 6, 2017

historic properties are discovered during implementation of this project. In such a situation, this office should be contacted.

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

Sincerely,



Krista Horrocks, Project Reviews Manager
Resource Protection and Review

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

RPR Serial No: 1070832, 1070833

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

December 6, 2017

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

Re: 17-693; Fostoria Central Station Expansion Project

Project: The proposed project involves the expansion of the existing Fostoria Central Station.

Location: The proposed project is located in Washington Township, Hancock 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 and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federal endangered mussel species, the purple lilliput (*Toxolasma lividus*), a state endangered mussel, the pondhorn (*Uniomorus tetralasmus*), a state threatened mussel, and the black sandshell (*Ligumia recta*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered 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 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

Miller, Brian

From: Ohio, FW3 <ohio@fws.gov>
Sent: Monday, August 9, 2021 9:36 AM
To: Lipp, Thomas
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate; Lubbers, Jake; Miller, Brian; Grant S Stuller
Subject: [EXTERNAL] AEP - Fostoria Central Station Expansion Project, Hancock County, Ohio



TAILS# 03E15000-2021-TA-1844

Dear Mr. Lipp,

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

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

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

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing

may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

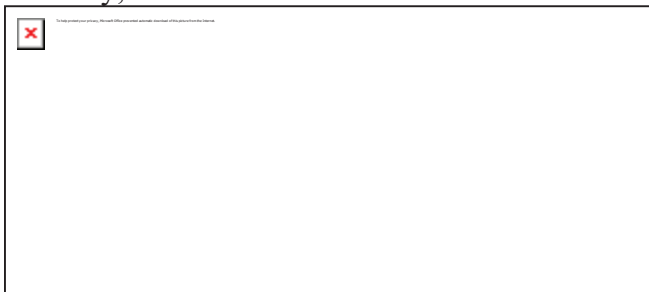
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

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

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

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

Sincerely,



Patrice M. Ashfield
Field Office Supervisor

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

Appendix D Ecological Resources Inventory Report

FOSTORIA CENTRAL STATION EXPANSION PROJECT, HANCOCK COUNTY, OHIO

WETLAND DELINEATION AND STREAM ASSESSMENT REPORT

Prepared for:

American Electric Power Ohio Transmission Company
8600 Smiths Mill Road
New Albany, Ohio 43054



Prepared by:

AECOM

525 Vine Street, Suite 1800
Cincinnati, Ohio 45202

Project #: 60664245

August 2021

TABLE OF CONTENTS

1.0	METHODOLOGY	4
1.1	WETLAND DELINEATION	4
1.1.1	SOILS	5
1.1.2	HYDROLOGY	5
1.1.3	VEGETATION	6
1.1.4	WETLAND CLASSIFICATIONS	6
1.1.5	OHIO RAPID ASSESSMENT METHOD v. 5.0.....	7
1.2	STREAM ASSESSMENT	8
1.2.1	OEPA QUALITATIVE HABITAT EVALUATION INDEX	9
1.2.2	OEPA PRIMARY HEADWATER HABITAT EVALUATION INDEX	9
1.2.3	OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY	10
1.4	RARE, THREATENED, AND ENDANGERED SPECIES	11
2.0	RESULTS.....	12
2.1	WETLAND DELINEATION	12
2.1.1	PRELIMINARY SOILS EVALUATION	12
2.1.2	NATIONAL WETLAND INVENTORY MAP REVIEW	13
2.1.3	DELINEATED WETLANDS	13
2.1.4	DELINEATED WETLANDS ASSESSMENT.....	14
2.2	STREAM DELINEATION	14
2.3	PONDS	14
2.4	VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY CORRIDOR	14
2.5	RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION	15
3.0	SUMMARY	19
4.0	REFERENCES.....	21

TABLES (in-text)

TABLE 1: SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE FOSTORIA CENTRAL STATION EXPANSION PROJECT SURVEY AREA.....	13
TABLE 2: VEGETATIVE COMMUNITIES WITHIN THE FOSTERIA CENTRAL STATION EXPANSION PROJECT SURVEY AREA.....	15
TABLE 3: ODNR AND USFWS LISTED SPECIES WITHIN THE FOSTERIA CENTRAL STATION EXPANSION PROJECT SURVEY AREA	16

FIGURES

Number

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

APPENDICES

Number

APPENDIX A	Project Wetland Table
APPENDIX B	U.S Army Corps of Engineers Wetland Data Forms / OEPA Wetland ORAM Forms / Delineated Features Photographs (combined per wetland and shown in numerical order)
APPENDIX C	Habitat and Other Identified Features Photographs
APPENDIX D	Agency Correspondence

INTRODUCTION

American Electric Power Ohio Transmission Company (AEP Ohio Transco) is proposing to expand its existing Fostoria Central Station (Project) in Hancock County, Ohio. AEP requested that AECOM survey an approximately 23-acre property owned by AEP that includes the existing station and adjacent areas. The existing fenced area of the station is approximately seven acres and the proposed expansion area is expected to be less than two additional acres on the 23-acre property. The proposed Project is illustrated on Figure 1.

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 types within the proposed Project area included: agricultural fields, existing transmission station, and maintained transmission line right-of-way (ROW).

1.0 METHODOLOGY

The purpose of the field survey was to assess whether wetlands and other “waters of the U.S.” exist within the approximately 23-acre Project survey area. 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 as an exercise to identify the occurrence and location of potential wetland areas.

On September 7th, 2017 and July 27, 2021, AECOM ecologists walked the Project survey area to conduct a wetland delineation and stream assessment. Field survey activities included recording the physical boundaries of observed water features using sub-meter capable EOS Arrow Global Positioning System (GPS) units in conjunction with ArcCollector application on iPad tablets. The GPS data were imported into ArcMap Geographic Information System (GIS) software, where the data were reviewed, edited for accuracy, and compiled in a format suitable for transfer and use by AEP Ohio Transco. Water features were delineated and assessed based upon the appropriate procedures detailed below.

1.1 WETLAND DELINEATION

The Project survey corridor 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) (Midwest Regional Supplement)* (USACE, 2010). The *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. The *Midwest Regional Supplement* was developed to address regional wetland characteristics and improve the accuracy and efficiency of wetland delineation procedures.

During field survey activities AECOM utilized the routine on-site delineation method described in the *1987 Manual* and *Midwest Regional Supplement* 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.

1.1.1 SOILS

A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (*Midwest Regional Supplement*). The presence of hydric soil indicators is positive evidence of the hydric soil parameter. 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 which describes the soil profile. The completed soil profile was used to determine which, if any, hydric soil indicators were met as detailed in the *Midwest Regional Supplement*.

1.1.2 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 five percent and 12.5 percent of the growing season fulfill the hydrology requirements for wetlands). The *Midwest 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-inch 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 *Midwest Regional Supplement* also states that if onsite data gathering is not practical, the growing season can be approximated by the number of days between the average (5 of 10 years, or 50 percent probability of recurrence) 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 Hancock County that in an average year, this period lasts from April 11 to October 31, or 203 days. Thus, for the Project location, 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 *Midwest 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).

1.1.3 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 *2018 National Wetland Plant List: Midwest Region* (U.S. Army Corps of Engineers, 2018), which encompasses the Project survey corridor. An area is determined to have a positive indicator for hydrophytic vegetation when, under normal circumstances, more than 50 percent 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 50 percent or more of the composition of the dominant species was FACU and/or UPL species. In lieu of the dominance test, the prevalence test can be used as an indicator 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).

1.1.4 WETLAND CLASSIFICATIONS

Wetlands identified in the field were classified based on the naming convention found in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al*, 1979). There are five main classes of wetlands and deepwater habitats, including: marine, estuarine, riverine, lacustrine, and palustrine. Marine and estuarine wetlands are not found in the interior of the U.S. while riverine wetlands are typically delineated as streams (when there is an absence of vegetation within the channel). Lacustrine systems typically include dammed river channels and non-vegetated open water exceeding 20 acres. Palustrine systems, which includes non-tidal wetlands dominated by trees, shrubs, or emergent vegetation, are the primary wetland types which may be identified within the Project survey corridor. The possible palustrine wetland classification types are as follows:

PEM – Palustrine 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 – Palustrine forested wetlands are characterized by woody vegetation that is three inches or more diameter at breast height (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 an herbaceous layer.

PSS – Palustrine scrub/shrub wetlands are characterized by woody vegetation that is less than three inches DBH, and greater than 3.28 feet tall. The woody angiosperms (i.e., small trees or shrubs) in this broad-leaved deciduous community have relatively wide, flat leaves that are shed annually during the cold or dry season.

PUB – Palustrine unconsolidated bottom wetlands includes all open water wetlands and deepwater habitats with at least 25 percent cover of particles smaller than stones, and a vegetative cover less than 30 percent. Palustrine open water wetlands are characterized by the lack of large stable surfaces for plant and animal attachment.

For some wetlands, multiple Cowardin classifications may be present where more than one classification's vegetation is dominant (vegetation covers 30 percent or more of the substrate). Where multiple Cowardin classifications are present, the Cowardin classification of the plants that constitute the uppermost layer of vegetation is listed.

1.1.5 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 the ORAM 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 – 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 – 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.

1.2 STREAM ASSESSMENT

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 Clean Water Act requires 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, 2020). Streams assessed in the Project survey corridor 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).

1.2.1 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 or if natural pools are greater than 40 cm in depth, or if the water feature is shown as blue-line waterway on USGS 7.5-minute topographic quadrangle maps. In order to convey general stream habitat quality to the 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).

1.2.2 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 the 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 in OAC 3745-1-07.

Headwater streams are scored based on channel substrate composition, bankfull width, and maximum pool depth. Assessment results 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 "Class I PHW Streams", 30 to 70 are "Class II PHW Streams", and 71 to 100 are "Class III 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, 2020). Evidence of anthropogenic alterations to the natural channel will result in a "Modified" qualifier for the stream type.

Class I PHW 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, 2020). 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.

Class II PHW Streams: are equivalent to "warmwater habitat" streams and exhibit intermittent or perennial flow. This stream class has a "moderately diverse community of warm water adapted native fauna either present seasonally or year-round" (OEPA, 2020). The species communities are composed of vertebrates (fish and salamanders) and/or benthic macroinvertebrates that are considered pioneering and/or temperature facultative species.

Class III PHW Streams: have prevailing flow and temperature conditions influenced by groundwater, with diverse communities of cold water adapted native fauna present year-round. Class III PHW 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.

1.2.3 OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

The OEPA has designated each watershed in the state based on 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: 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 D "Stream Eligibility Determination Process" of the OEPA Ohio State Water Quality Certification of the 2017 Nationwide Permit Reauthorization.

1.3 UPLAND DRAINAGE FEATURE

An upland drainage feature (UDF) is a non-jurisdictional drainage that does not meet the criteria of either a jurisdictional stream or a wetland. A UDF generally lacks an OWHM (USACE, 2005), and are equivalent to a swale or an erosional feature as described by the USACE: "generally shallow features in the landscape that may convey water across upland areas during and following storm events. Swales usually occur on nearly flat slopes and typically have grass or other low-lying vegetation throughout the swale" (USACE, 2007).

A roadside ditch may also be documented as a UDF if it meets the "not potentially jurisdictional" characterization as described in the Office of Environmental Services *Roadway Ditch Characterization Flowchart* (Ohio Department of Transportation, 2014). This would include a ditch that originates entirely within the roadway right-of-way, has a seasonal flow regime, was not constructed to drain a wetland, and does not have hydrophytic vegetation extending more than an insignificant amount beyond its original configuration.

In addition, UDF's (including swales, ditches, and other erosional features) are generally not "waters of the U.S." because they are not tributaries.

1.4 RARE, THREATENED, AND ENDANGERED SPECIES

AECOM conducted a rare, threatened, and endangered species review and general field habitat surveys within the Project survey corridor. The first phase of the survey involved a review of online lists of federally and state-listed species. In addition to the review of available lists, AECOM initially submitted a request to Ohio Department of Natural Resources (ODNR) Office of Real Estate – Environmental Review Section as well as the United States Fish and Wildlife Service (USFWS) in August 2017 soliciting comments on the proposed Project. AECOM received responses from USFWS and ODNR in September 2017 and December 2017, respectively. Due to the lapse of time from the 2017 agency response letters, AECOM

submitted additional requests to ODNR and USFWS in August 2021. The USFWS responded on August 9, 2021 and a change of species listed in the original coordination has not occurred and updated coordination. As the ODNR response has not been received, the original 2017 response has been included within Appendix D and AECOM will provide an addendum report upon receipt.

The 2017 agency-identified species and available species-specific information was reviewed to identify the various habitat types that listed species are known to inhabit. AECOM field ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys as part of the second phase of assessing rare, threatened, and endangered species. Land uses within the Project survey corridor were assigned a general classification based upon the principal land characteristics and vegetative cover as observed during the field surveys.

2.0 RESULTS

In September 2017 and July 2021 AECOM ecologists walked the Project survey corridor to conduct the wetland delineation, stream assessment and habitat survey. Within the Project survey area, AECOM delineated one wetland, no streams and no ponds. The delineated features are discussed in detail in the following sections.

2.1 WETLAND DELINEATION

2.1.1 PRELIMINARY SOILS EVALUATION

Soils in the delineated wetland were observed and documented as part of the delineation methodology. Prior to field surveys, AECOM reviewed the USDA/NRCS Hydric Soils of the United States to identify map units that may potentially contain hydric soils within the Project survey corridor. The USDA/NRCS describes Hydric Soils of the United States as a compilation of all map units with either a major or minor component that is at least in part hydric. This could include components that are soil series, components that are classified at categories higher than the series level in Soil Taxonomy, and miscellaneous land types. The list contains both major and minor soil map units with a range of characteristics composed of both hydric and non-hydric soil components. Therefore, portions of a listed hydric soil may not be considered hydric or non-hydric due to topographic setting and/or percentage of the overall map unit.

According to the USDA/NRCS Web Soil Survey of Hancock County, Ohio (USDA NRCS, 2017), two soil series are mapped within the Project survey corridor, inclusive of three mapped soil units. Of these three mapped units, one soil map unit is identified as hydric (USDA NRCS, 2017). Table 1 provides a detailed overview of all soil series and soil map units present within the Project survey corridor. Soil map units located in the Project survey corridor and vicinity are shown on Figure 2.

TABLE 1: SOIL MAP UNITS WITHIN THE FOSTORIA CENTRAL STATION EXPANSION PROJECT SURVEY AREA

Soil Map Unit	Mapping Unit Symbol	Topographic Setting	Hydric Status	Hydric Component (%)
Blount silt loam, ground moraine, 0 to 2 percent slopes	Blg1A1	Ground Moraines on till plains	Not Hydric	9
Blount-Houcktown complex, 0 to 3 percent slopes	BpA	Depressions on ground moraines	Not Hydric	5
Pewamo silty clay loam, 0 to 1 percent slopes	PmA	Depressions on till plains, drainageways on till plains	Hydric	Pewamo (85%)

(1) Data sources include:

USDA, NRCS. 2017 Soil Survey Geographic (SSURGO) Database. Available online at: <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/>

2.1.2 NATIONAL WETLAND INVENTORY MAP REVIEW

National Wetland Inventory 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. In addition, small wetlands are typically not identified due to the scale of the aerial photography. 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 NWI data covering the Project location, the Project survey Area does not contain any mapped NWI wetlands.

2.1.3 DELINEATED WETLANDS

During the field survey, AECOM identified one wetland (Wetland 01), which was approximately 0.12 acre in size, within the Project survey corridor. The wetland within the Project survey corridor was of the PEM wetland habitat type. See Appendix A for a summary of the delineated wetland within the Project survey area. AECOM provided a preliminary classification of jurisdictional status for each wetland based upon the 2020 Navigable Waters Rule. Typically, wetlands that are not hydrologically connected to another Waters of the U.S. (WOTUS) such as an intermittent or perennial stream, are not considered WOTUS themselves. Wetland 01 was identified as being WOTUS (i.e. adjacent to or abutting a perennial or intermittent stream),

and therefore, is preliminarily identified as “adjacent.” Final jurisdictional status can only be determined by the USACE.

The locations and approximate extent of the wetlands identified within the Project survey corridor are shown on Figure 3. Completed USACE and ORAM wetland delineation forms and photographs of the wetlands are provided in Appendix B.

2.1.4 DELINEATED WETLANDS ASSESSMENT

Within the Project survey area, Wetland 01 was found to be a Category 1 wetland. Wetland 01 had an ORAM score of 10.5. Wetland assessment results (ORAM score) are provided in the Project Wetland Table in Appendix A. Wetland assessment ORAM forms are included in Appendix B.

Category 1 Wetlands

The Category 1 wetland delineated within the Project survey area was classified as a PEM wetland. Wetland 01 was delineated between existing railroad tracks, and exhibited very narrow upland buffers, high surrounding land use, and poor plant community development with an extensive percentage of invasive species. The wetland had habitat and hydrology in the early stages of recovering from previous manipulation due to sedimentation, toxic pollutants, and other disturbances.

Category 2 or 3 Wetlands

No Category 2 or Category 3 wetlands were identified within the Project survey area.

2.2 STREAM DELINEATION

No streams were observed within the Project survey area.

2.3 PONDS

No ponds were observed within the Project survey area.

2.4 VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY CORRIDOR

AECOM ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys in September 2017 and July 2021. Five vegetative communities, as described below in Table 2, are present within the Project survey corridor. Portions of the Project survey area were identified as agricultural land, landscaped areas, scrub-shrub, wetland habitat, and urban areas (e.g., existing station,

railroad tracks, and access road). Vegetated land cover of the Project is displayed in Appendix E and can be viewed from aerial photography provided on Figure 5.

TABLE 2: VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY 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 fields was present in the Project survey area. The agricultural land contains row crops and is not used for pasture or hay fields	1.92	8%
Landscaped Areas	Landscaped areas, including maintained transmission line ROW, were observed within the Project vicinity. These landscaped areas within the Project survey corridor and adjacent areas are frequently to periodically mowed grasses and forbs.	11.71	50%
Scrub-Shrub	Scrub-shrub habitats represent the successional stage between old-field and second growth forest, and often emerge in recently harvested forests responding to the lightness of the removed canopy. Dominant species consist of herbaceous communities similar to that of old field habitat with a few woody species, to a community dominated by forest herbs and woody species.	0.32	1%
Wetlands	Wetlands were observed both within and beyond the survey corridor for the Project.	0.31	1%
Urban	Urban areas are areas developed with commercial/industrial land uses, including roads and railroads, buildings, existing sub-stations and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	9.27	40%
Totals:		23.53	100%

2.5 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

AECOM conducted a rare, threatened, and endangered species review for areas within the Project survey area. A summary of the agency coordination is provided below. Response letters were received by AECOM from the ODNR and USFWS in 2017 and due to the lapse of time AECOM has submitted additional requests to the agencies on August 3, 2021. The USFWS responded on August 9, 2021 and a change of species listed in the original coordination has not occurred and updated coordination has been provided as Appendix D. As the ODNR response has not been received, the original 2017 response has been included within Appendix D and AECOM will provide an addendum report upon receipt. Table 3 provides a list of these species of concern identified in the Project area during the rare, threatened, and endangered species review.

TABLE 3
ODNR AND USFWS LISTED SPECIES WITHIN THE FOSTORIA CENTRAL STATION PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Agency Comments (2017)	Potential Impacts and Avoidance Dates
Mammals						
Indiana bat (<i>Myotis sodalis</i>)	Endangered	Endangered	<p>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. Proximity to water is critical, because insect prey density is greater over or near open water.</p>	No-Within the Project survey area, no potentially suitable habitat was observed for this species	<p>USFWS commented that if no caves of abandoned mines are present and trees < 3inches dbh are avoided, then there would be no impact. If trees >3 inches dbh cannot be avoided, USFWS and ODNR recommend that any cutting of trees ≥3 inches DBH occur between October 1 and March 31. ODNR additionally requested that a net survey be conducted between June 1 and August 15, prior to cutting, if suitable trees must be cut during summer months.</p>	No potentially suitable habitat (woodlands) was observed within the Project survey area. No impacts to this species are anticipated.

TABLE 3
ODNR AND USFWS LISTED SPECIES WITHIN THE FOSTORIA CENTRAL STATION PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Agency Comments (2017)	Potential Impacts and Avoidance Dates
Northern long-eared bat (Myotis septentrionalis)	Threatened	Threatened	<p>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).</p> <p>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. 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.</p>	No-Within the Project survey area, no potentially suitable habitat was observed for this species	USFWS commented that if no caves or abandoned mines are present and trees < 3inches dbh are avoided, then there would be no impact. If trees >3 inches dbh cannot be avoided, USFWS recommends that any cutting of trees ≥3 inches DBH occur between October 1 and March 31. ODNR did not comment on this species.	No potentially suitable habitat (woodlands) was observed within the Project survey area. No impacts to this species are anticipated.
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.	No- Within the Project survey area, no potentially suitable habitat was observed for this species	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.	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated

TABLE 3
ODNR AND USFWS LISTED SPECIES WITHIN THE FOSTORIA CENTRAL STATION PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Agency Comments (2017)	Potential Impacts and Avoidance Dates
Purple lilliput (<i>Toxolasma lividus</i>)	Endangered	None	This mussel prefers still water in mud or sandy mud. Has been found along stream banks just below water surface.	No- Within the Project survey area, no potentially suitable habitat was observed for this species	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.	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated
Rayed bean (<i>Villosa fabalis</i>)	Endangered	Endangered	This species of mussel has been found to prefer sand and gravel substrates in small to medium sized rivers.	No- Within the Project survey area, no potentially suitable habitat was observed for this species	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.	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated
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.	No- Within the Project survey area, no potentially suitable habitat was observed for this species	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.	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated
Black sandshell (<i>Ligumia recta</i>)	Threatened	None	This mussel prefers large streams with sandy mud or gravelly substrate.	No- Within the Project survey area, no potentially suitable habitat was observed for this species	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.	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated
Fish						
Banded Killifish (<i>Fundulus diaphanus menona</i>)	Endangered	None	This fish species prefers areas of abundant rooted vegetation with clear water and substrates of sand or organic debris. Previously found in natural glacial lakes and streams. Recently found in bays and coastal marshes.	No- Within the Project survey area, no potentially suitable habitat was observed for this species	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.	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated

ODNR Coordination –

Coordination with the ODNR-DOW was initiated during the planning stages of the Project to obtain records located in the vicinity of the project. On December 6, 2017, the ODNR Office of Real Estate Environmental Review Section replied to an emailed request for records of protected species within an extended area around the Project site. The Ohio Natural Heritage Database (ONHD) review did not return records of records of state-protected species within a one-mile radius of the Project area.

The ODNR Division of Wildlife (DOW) recommended that impacts to streams, wetlands, and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation. The DOW indicated that the Project is within the range of the Indiana bat, clubshell, rayed bean, purple lilliput, pondhorn, black sandshell and western banded killifish. Based on ODNR comments and lack of potentially suitable habitat, no impacts are anticipated to these species..

USFWS Coordination –

Coordination with the USFWS was initiated on August 3, 2021 to obtain updated information in regard to federally-listed threatened and endangered species that may occur within the project vicinity. The USFWS responded on August 9, 2021 indicating that there are no federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project. The USFWS indicated that the Project lies within the range of the federally endangered Indiana bat and the federally threatened northern long-eared bat. Due to the lack of potentially suitable habitat, no impacts are anticipated for these bat species or their habitat.

3.0 SUMMARY

The ecological survey of the Project survey area identified a total of one PEM wetland. No streams or ponds were identified within the Project survey area. The wetland identified within the Project survey area, (Wetland 01), consisted of a Category 1 wetland and has provisionally been classified as an adjacent wetland and WOTUS under the 2020 Navigable Waters Rule. Final jurisdictional status can only be determined by the USACE.

AECOM initially submitted requests to ODNR and USFWS in August 2017 soliciting comments on the proposed Project. AECOM received responses from USFWS and ODNR in September 2017 and December 2017, respectively. Due to the lapse of time from the 2017 agency response letters, AECOM submitted additional requests to ODNR and USFWS in August 2021. Response letters for the August 2021 correspondence requests have been received by AECOM from the USFWS and are included in Appendix

D. The ODNR response has not been received at the date of this report, but will be provided upon receipt. AECOM's analysis of potential habitat for state listed species is based on the 2017 ODNR response and for federally listed species based on the August 2021 USFWS response, as well as from AECOM's field evaluation of the Project in September 2017 and July 2021.

In the 2017 agency responses, eight state and/or federally listed threatened or endangered species were reported by the ODNR or the USFWS as possibly occurring within the Project vicinity. Based on agency comments and the lack of potentially suitable habitat within the Project survey area, no impacts to the eight listed species are anticipated.

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.

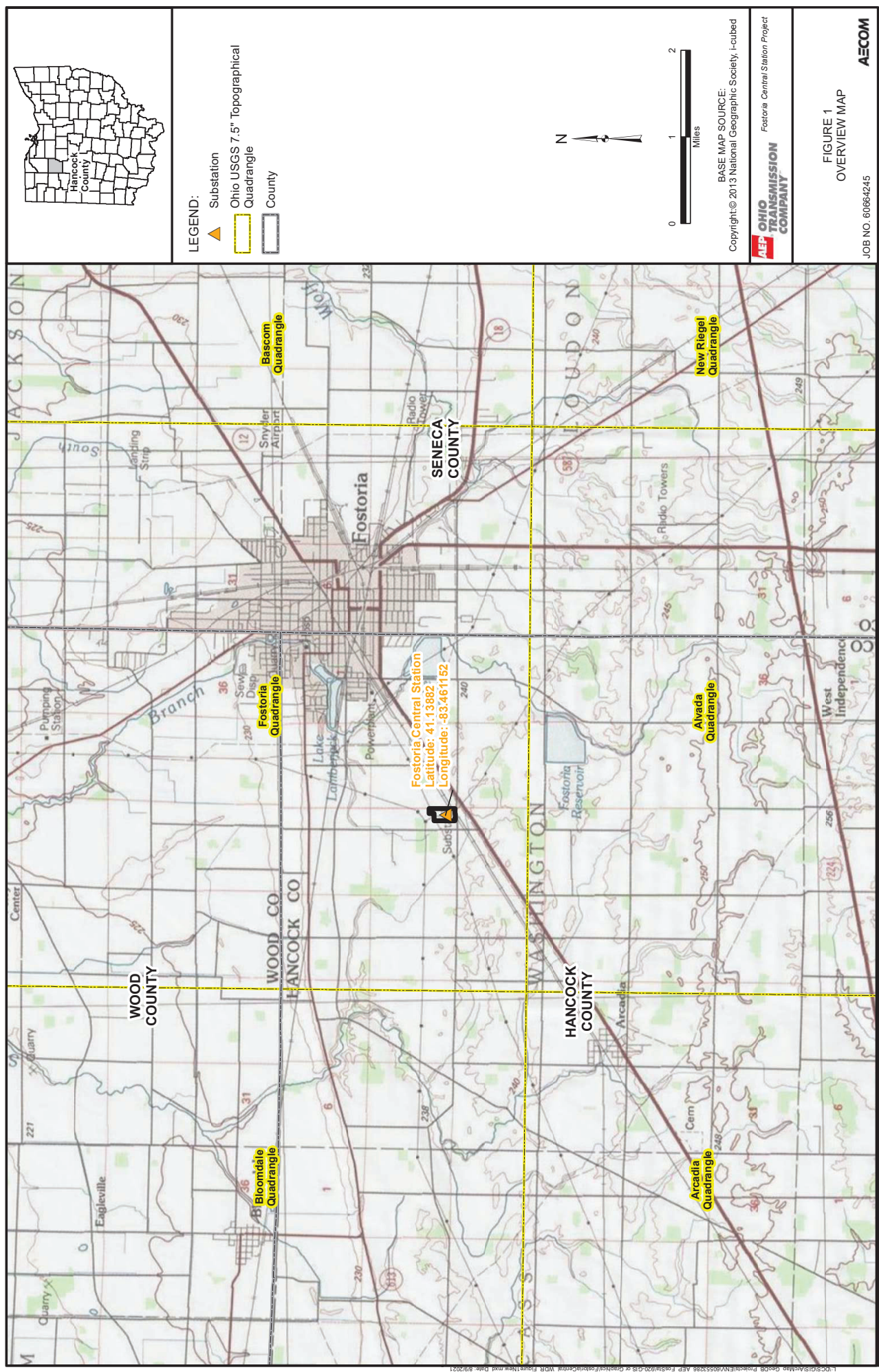
The information contained in this wetland delineation report is for a study area that may be much larger than the actual Project limits-of-disturbance; therefore, lengths and acreages listed in this report may not constitute the actual impacts of the Project defined in subsequent permit applications.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

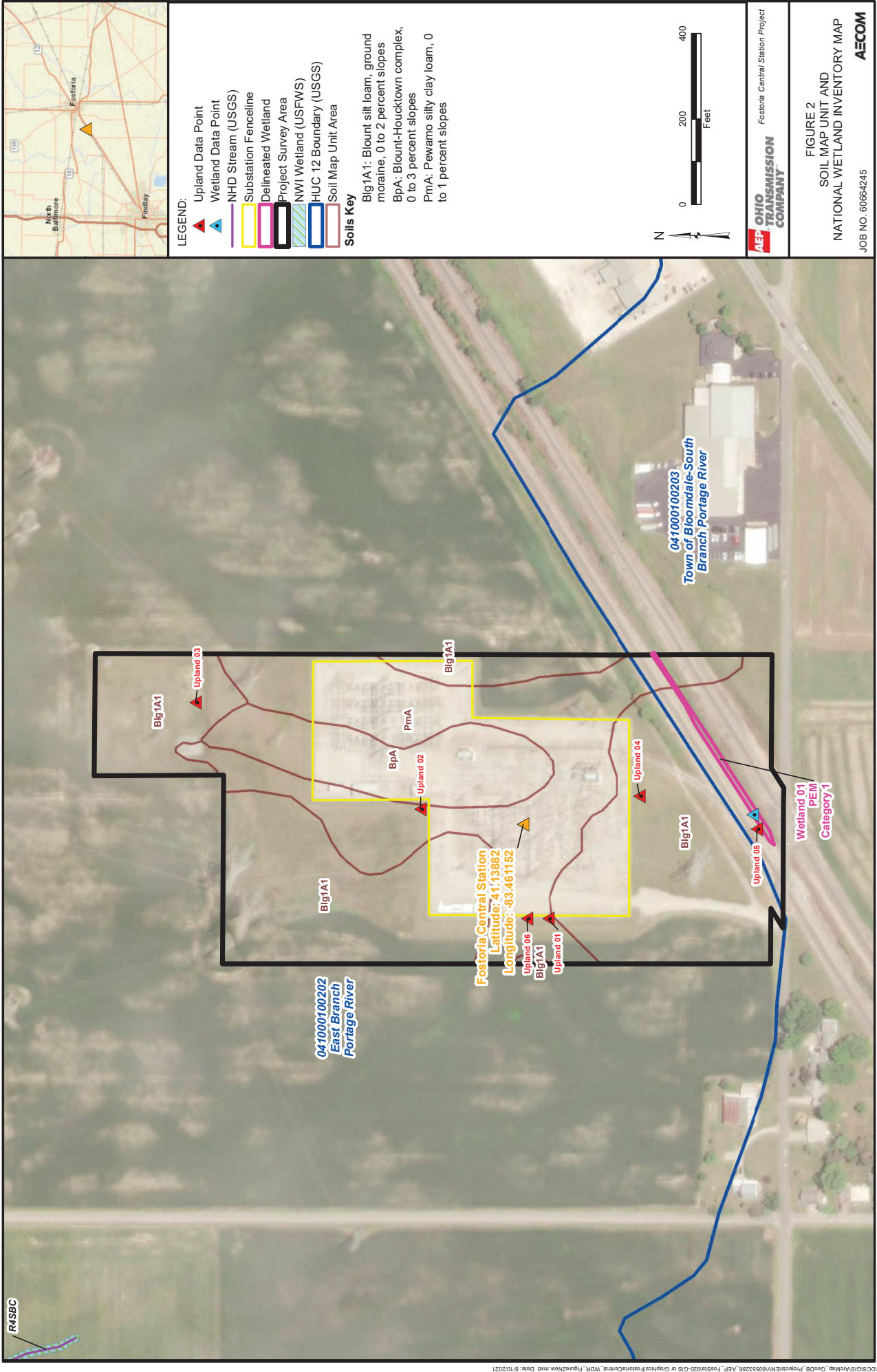
The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due 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.

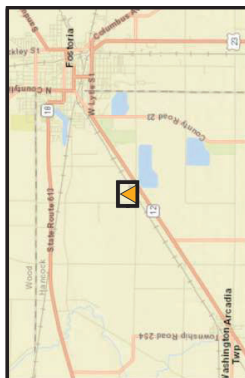
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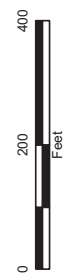






LEGEND:

- Substation
- Upland Data Point
- Wetland Data Point
- 5 ft Contour Interval
- Substation Fenceline
- Delineated Wetland
- Project Survey Area

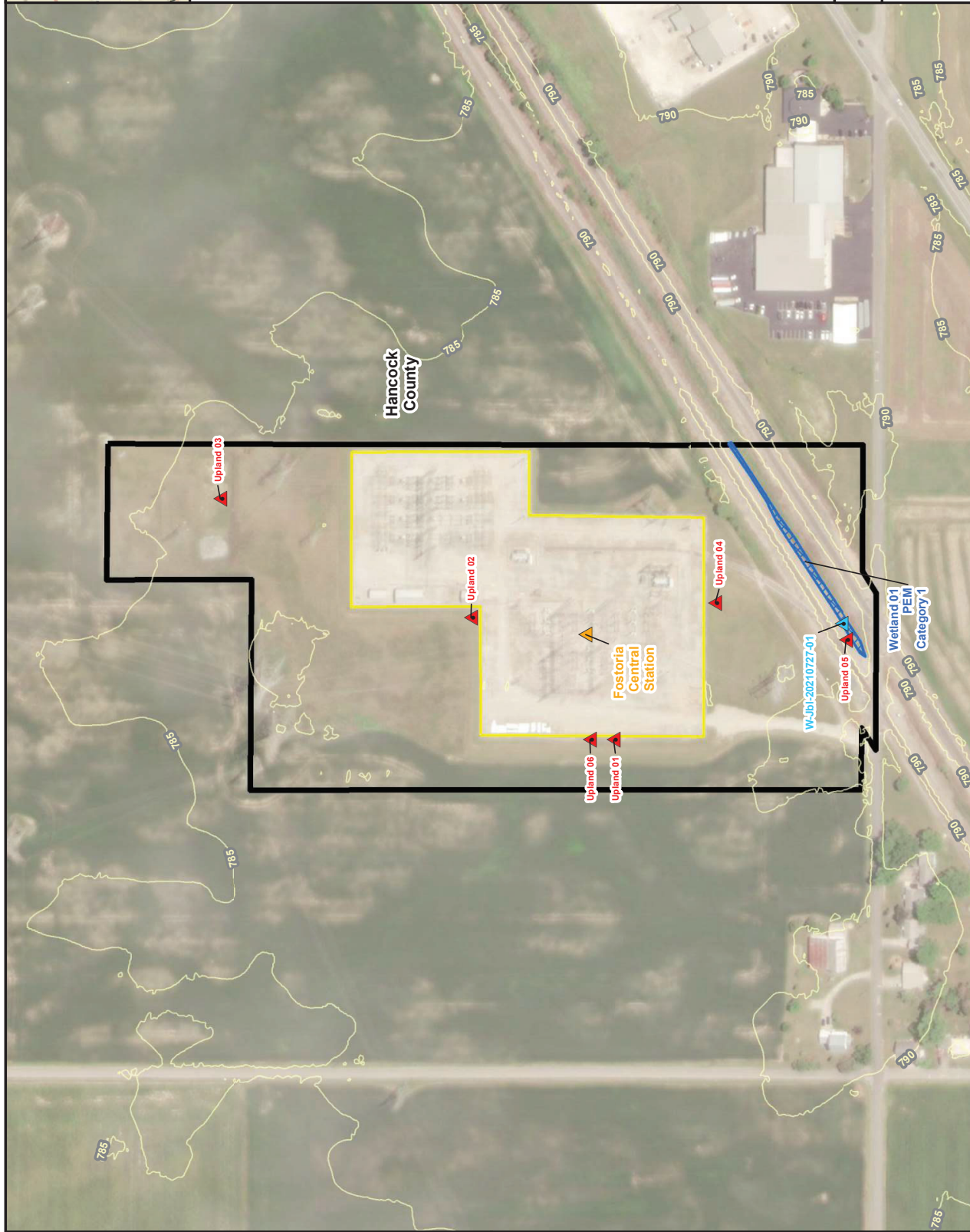


OHIO TRANSMISSION COMPANY
Fostoria Central Station Project

FIGURE 3
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60664245

AECOM





LEGEND:

- Station
- NHD Stream (USGS)
- Substation Fenceline
- Fostoria Central Station Project Survey Area
- County
- OPEA Stream Eligibility:
 - Eligible



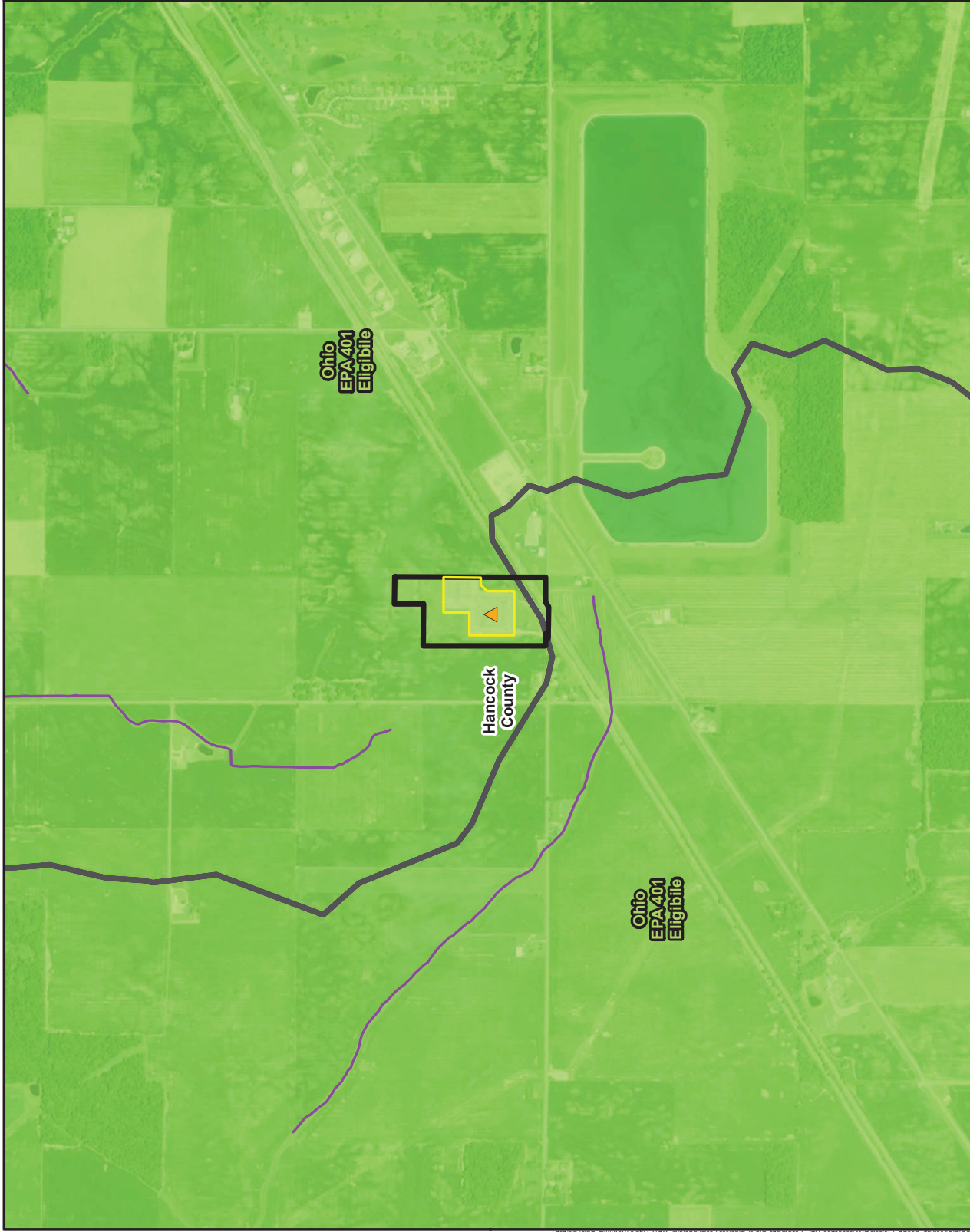
BASE MAP SOURCE:
Source: Esri, Maxar, GeoEye, Earthstar Geographics,

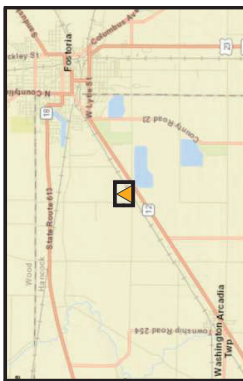
AEP OHIO TRANSMISSION COMPANY
Fostoria Central Station Project

FIGURE 4
STREAM ELIGIBILITY MAP

JOB NO. 60864245

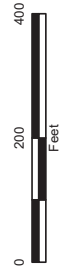
AECOM





LEGEND:

- Substation
- Substation Fenceline
- Agricultural Land
- Scrub-Shrub
- Urban
- Wetland
- Landscaped Area
- Project Survey Area
- County



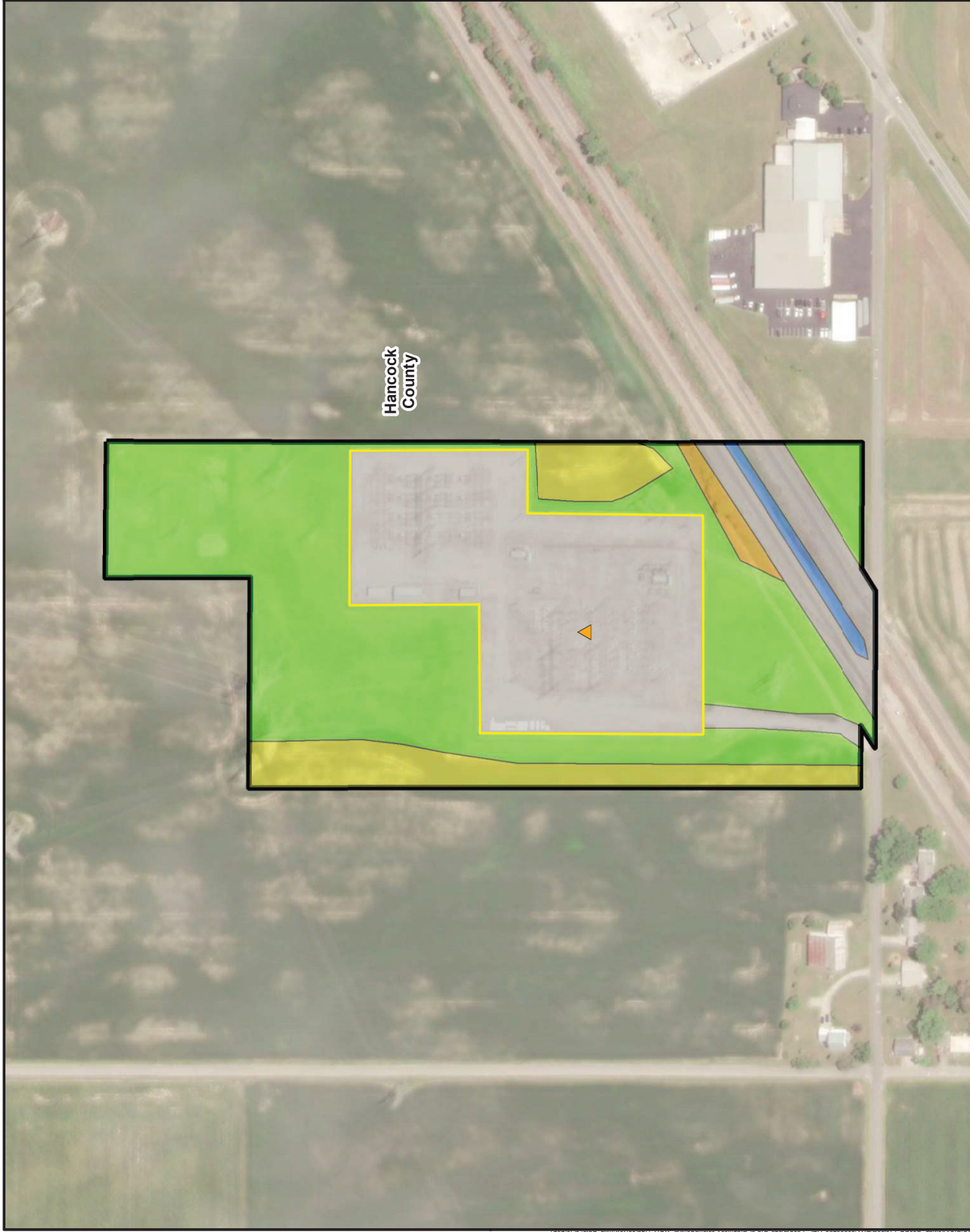
BASE MAP SOURCE:
Source: Esri, Maxar, GeoEye, Earthstar Geographics,

AEP OHIO TRANSMISSION COMPANY
Fostoria Central Station Project

FIGURE 5
VEGETATIVE COMMUNITIES MAP

JOB NO. 60664245

AECOM



APPENDIX A
PROJECT WETLAND TABLE

**FOSTORIA CENTRAL STATION EXPANSION PROJECT
WETLAND TABLE**

8/9/2021

Wetland ID	Location		Isolated?	Habitat Type	Delineated Area (acre)	ORAM		Nearest Structure # (Existing / Proposed)	Existing Structure # in Wetland	Proposed Structure # in Wetland	Structure Installation Method	Proposed Impacts	
	Latitude	Longitude				Score	Category					Temporary Matting Area (acre)	Permanent Impact Area (acre)
Wetland 01	41.137340	-83.461030	No	PEM	0.120	10.5	1	N/A	NA	NA	NA	0.000	0.000
Total:					0.120							0.000	0.000

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

APPENDIX B**U.S. ARMY CORPS OF ENGINEERS WETLAND DATA FORMS****OEPA WETLAND ORAM FORMS****DELINEATED FEATURES PHOTOGRAPHS (WETLANDS)**

SOIL

Sampling Point: jbl-20210727

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		
0-9	10YR 5/1	85	10YR 4/6	15	C	PL/M	Loamy/Clayey	Prominent redox concentrations
9-17	10YR 5/1	75	10YR 4/6	25	C	PL/M	Loamy/Clayey	Prominent redox concentrations

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input checked="" type="checkbox"/> Redox Depressions (F8)		

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
 Hydric soil indicators observed as Depleted matrix and redox depressions along pore linings.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.25</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

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

Remarks:
 Wetland hydrology indicators observed. Sample point determined to be a wetland due the presence of wetland vegetation, hydrology and soils.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fostoria Central Station Expansion Project City/County: Hancock County Sampling Date: 07/27/2021
 Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-20210727-01
 Investigator(s): JBL, C Section, Township, Range: 10, 2N, 12E

Landform (hillside, terrace, etc.): swale Local relief (concave, convex, none) concave

Slope (%): 1 Lat: 41.13865 Long: -83.46195 Datum: NAD 83

Soil Map Unit Name: PmA - Pewamo silty clay loam, 0 to 1 percent slopes NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: sample point upl-jbl-20210727-01 within constructed depressional area between gravel substation and berm. Sample point does not meet wetland criteria.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>5'</u>)			
1. <u>Echinochloa crus-galli</u>		40	Yes	FACW
2. <u>Lotus corniculatus</u>		20	Yes	FACU
3. <u>Persicaria pensylvanica</u>		20	Yes	FACW
4. <u>Plantago lanceolata</u>		20	Yes	FACU
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		100	=Total Cover	
Woody Vine Stratum	(Plot size: <u>30'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (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>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>280</u> (B)
Prevalence Index = B/A = <u>2.80</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0¹

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

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation

Present? Yes No X

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

Plot confined to 5' radius within bottom of swale. Although the Prevalence Index is less than 3, the lack of Indicators of hydric soil and wetland hydrology make this vegetation non-hydrophytic.

Sampling Point: -jbl-20210727

HYDROLOGY			
Wetland Hydrology Indicators:			
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		
Field Observations:			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>
(includes capillary fringe)			
		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
No primary hydrology indicators present. One secondary indicator present: Geomorphic position.			

Version 5.0	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization
	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet

Ohio EPA, Division of Surface Water Final:
February 1, 2001

Instructions


The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland may be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To properly answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at:
<http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx>

Background Information	
Name:	Jake Lubbers
Date:	7/27/2021
Affiliation:	AECOM
Address:	525 Vine Street, Suite 1800, Cincinnati, Ohio 45202
Phone Number:	513-419-3506
e-mail address:	jake.lubbers@aecom.com
Name of Wetland:	Wetland 01
Vegetation Community(ies):	PEM
HGM Class(es):	Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
<p>See Figures 1, 2, and 3 of Wetland Delineation and Stream Assessment Report.</p>	
Lat/Long or UTM Coordinate:	41.137336, -83.461042
USGS Quad Name:	Fostoria
County:	Hancock
Township:	2N
Section and Subsection:	10, 12E
Hydrologic Unit Code:	04100010001048
Site Visit:	7/27/2021
National Wetland Inventory Map:	See Figure 2
Ohio Wetland Inventory Map:	See Figure 2
Soil Survey:	See Figure 2
Delineation report/map:	See Figure 3

Name of Wetland:	Wetland 01		
Wetland Size (delineated acres):	0.02	Wetland Size (Estimated total acres):	0.25
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.			
			
Comments, Narrative Discussion, Justification of Category Changes:			
sample point w-jbl-20210727-01 in depressional area between railroad tracks. Previously delineated in 2017 as Wetland 01 and boundary confirmed on 07/27/2021. Boundary of wetland extends off site within the depressional area			
Final score:	10.5	Category:	1

Scoring Boundary Worksheet

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

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

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

Wetland ID: **Wetland 01**

Narrative Rating

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

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

Wetland ID:	Wetland 01
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8b Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	<div>*NO</div> Go to Question 9a
9a Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	<div>*NO</div> Go to Question 10
9b Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	<div>*NO</div> Go to Question 9c
9c Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	<div>*NO</div> Go to Question 10
9d Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	<div>*NO</div> Go to Question 9e
9e Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	<div>*NO</div> Go to Question 10
10 Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	<div>*NO</div> Go to Question 11
11 Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	<div>*NO</div> Complete Quantitative Rating

Wetland ID:	Wetland 01
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Table 1. Characteristic plant species.				
invasive/exotic spp	fen species	bog species	oak opening species	wet prairie species
<i>Lythrum salicaria</i>	<i>Zygadenus elegans</i> var. <i>glaucus</i>	<i>Calla palustris</i>	<i>Carex cryptolepis</i>	<i>Calamagrostis canadensis</i>
<i>Myriophyllum spicatum</i>	<i>Cacalia plantaginea</i>	<i>Carex atlantica</i> var. <i>capillacea</i>	<i>Carex lasiocarpa</i>	<i>Calamagrostis stricta</i>
<i>Najas minor</i>	<i>Carex flava</i>	<i>Carex echinata</i>	<i>Carex stricta</i>	<i>Carex atherodes</i>
<i>Phalaris arundinacea</i>	<i>Carex sterilis</i>	<i>Carex oligosperma</i>	<i>Cladium mariscoides</i>	<i>Carex buxbaumii</i>
<i>Phragmites australis</i>	<i>Carex stricta</i>	<i>Carex trisperma</i>	<i>Calamagrostis stricta</i>	<i>Carex pellita</i>
<i>Potamogeton crispus</i>	<i>Deschampsia caespitosa</i>	<i>Chamaedaphne calyculata</i>	<i>Calamagrostis canadensis</i>	<i>Carex sartwellii</i>
<i>Ranunculus ficaria</i>	<i>Eleocharis rostellata</i>	<i>Decodon verticillatus</i>	<i>Quercus palustris</i>	<i>Gentiana andrewsii</i>
<i>Rhamnus frangula</i>	<i>Eriophorum viridicarinatum</i>	<i>Eriophorum virginicum</i>		<i>Helianthus grosseserratus</i>
<i>Typha angustifolia</i>	<i>Gentianopsis</i> spp.	<i>Larix laricina</i>		<i>Liatris spicata</i>
<i>Typha xglauca</i>	<i>Lobelia kalmii</i>	<i>Nemopanthus mucronatus</i>		<i>Lysimachia quadriflora</i>
	<i>Parnassia glauca</i>	<i>Scheuchzeria palustris</i>		<i>Lythrum alatum</i>
	<i>Potentilla fruticosa</i>	<i>Sphagnum</i> spp.		<i>Pycnanthemum virginianum</i>
	<i>Rhamnus alnifolia</i>	<i>Vaccinium macrocarpon</i>		<i>Silphium terebinthinaceum</i>
	<i>Rhynchospora capillacea</i>	<i>Vaccinium corymbosum</i>		<i>Sorghastrum nutans</i>
	<i>Salix candida</i>	<i>Vaccinium oxycoccos</i>		<i>Spartina pectinata</i>
	<i>Salix myricoides</i>	<i>Woodwardia virginica</i>		<i>Solidago riddellii</i>
	<i>Salix serissima</i>	<i>Xyris difformis</i>		
	<i>Solidago ohioensis</i>			
	<i>Tofieldia glutinosa</i>			
	<i>Triglochin maritimum</i>			
	<i>Triglochin palustre</i>			

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

Wetland ID:	Wetland 01
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ORAM Summary Worksheet

		Circle answer or insert score		Result
Narrative Rating	Question 1. Critical Habitat	YES	*NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES	*NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES	*NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES	*NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES	*NO	If yes, Category 1.
	Question 6. Bogs	YES	*NO	If yes, Category 3.
	Question 7. Fens	YES	*NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES	*NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES	*NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES	*NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES	*NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES	*NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES	*NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES	*NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1		
	Metric 2. Buffers and surrounding land use	1		
	Metric 3. Hydrology	6.5		
	Metric 4. Habitat	4		
	Metric 5. Special Wetland Communities	0		
	Metric 6. Plant communities, interspersation, microtopography	-2		
	TOTAL SCORE	10.5		Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland ID:	Wetland 01
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Site:	Fostoria Central Station Expansion Pr	Rater(s):	Jake Lubbers	Date:	7/27/2021
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1.0	1.0
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-20210727-01

Delineated acres:	0.02
Total acres:	0.25

1.0	2.0
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	8.5
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

- | | |
|---|---|
| <input checked="" type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> Other: |

4.0	12.5
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

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

12.5
subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland ID:	Wetland 01
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Site:	Fostoria Central Station Expansion Project	Rater(s):	Jake Lubbers	Date:	7/27/2021
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Field ID:

W-JBL-20210727-01

12.5
subtotal this page

0.0	12.5
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)

-2.0	10.5
max 20pts.	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

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

6b. horizontal (plan view) Interspersions.

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

- ☒ x 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/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

- 0 Absent or comprises <0.1ha (0.2471 acres) contiguous area
- 1 Present and either comprises small part of wetland's 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

10.5	TOTAL (Max 100 pts)
1	Category

Wetland ID:	Wetland 01
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Wetland Categorization Worksheet

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

Final Category

Choose one	*Category 1	Category 2	Category 3	
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End of Ohio Rapid Assessment Method for Wetlands.

Client Name: Duke Energy	Site Location: Fostoria Central Station Expansion Project	Project No. 60553286
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Wetland 01	
Date: July 27, 2021	
Description: Facing North	

Wetland 01	
Date: July 27, 2021	
Description: Facing East	

Client Name: Duke Energy	Site Location: Fostoria Central Station Expansion Project	Project No. 60553286
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Wetland 01	
Date: July 27, 2021	
Description: Facing South	

Wetland 01	
Date: July 27, 2021	
Description: Facing West	



PHOTOGRAPHIC RECORD WETLANDS

Client Name:

Duke Energy

Site Location:

Fostoria Central Station Expansion Project

Project No.

60553286

Wetland 01**Date:**

July 27, 2021

Description:

Soil Profile



WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fostoria Central Station Expansion Project City/County: Hancock County Sampling Date: 07/27/2021
 Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-20210727-02
 Investigator(s): JBL, CRW Section, Township, Range: 10, 2N, 12E

Landform (hillside, terrace, etc.): swale

Local relief (concave, convex, none) concave

Slope (%): 1 Lat: 41.13948 Long: -83.46103 Datum: NAD 83

Soil Map Unit Name: Pma - Pewamo silty clay loam, 0 to 1 percent slopes NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u> X </u>
Hydric Soil Present?	Yes <u> X </u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> X </u>	No <u> </u>			
Remarks: Sample point upl-jbl-20210727-012 in depressional area near northern corner of substation. Sample point does not meet wetland criteria due to lack of hydrophytic vegetation.					

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A				
2.				
3.				
4.				
5.				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: 15')			
1. N/A				
2.				
3.				
4.				
5.				
		=Total Cover		
Herb Stratum	(Plot size: 5')			
1. <i>Setaria pumila</i>		25	Yes	FAC
2. <i>Schedonorus arundinaceus</i>		25	Yes	FACU
3. <i>Setaria faberi</i>		20	Yes	FACU
4. <i>Hordeum jubatum</i>		5	No	FAC
5.				
6.				
7.				
8.				
9.				
10.				
		75	=Total Cover	
Woody Vine Stratum	(Plot size: 30')			
1. N/A				
2.				
		=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 30	x 3 = 90
FACU species 45	x 4 = 180
UPL species 0	x 5 = 0
Column Totals: 75 (A)	270 (B)
Prevalence Index = B/A = 3.60	

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)

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

Hydrophytic Vegetation Present? Yes No X

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

Hydrophytic vegetation not present as all vegetative coverage is comprised of FAC and FACU species.

SOIL

Sampling Point: jbl-20210727

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 4/2	95	10YR 4/6	5	C	PL/M	Loamy/Clayey	Prominent redox concentrations
7-16	10YR 4/2	90	10YR 4/6	10	C	PL/M	Loamy/Clayey	Prominent redox concentrations

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input checked="" type="checkbox"/> Redox Depressions (F8)
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
 Hydric soil indicators present. Depleted matrix: >60% of matrix with chroma 2 or less with qualifying thickness. Redox depressions present in pore linings.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 12 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 One primary and two secondary Hydrology indicators present. Saturation reaches a depth of 12", surface soil cracks and geomorphic position observed. Hydrology indicators present due to geomorphic position and recent precipitation. Swale was likely manipulated/formed by substation construction.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fostoria Central Station Expansion Project City/County: Hancock County Sampling Date: 07/27/2021
Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-20210727-03
Investigator(s): JBL, CRW Section, Township, Range: 10, 2N, 12E

Landform (hillside, terrace, etc.): depression

Slope (%): 0 Lat: 41.14093 Long: -83.46015 Datum: NAD 83

Soil Map Unit Name: BlgA1 - Blount silt loam, ground moraine, 0 to 2 percent slopes 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 <u> </u>	No <u> X </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u> X </u>
Hydric Soil Present?	Yes <u> </u>	No <u> X </u>			
Wetland Hydrology Present?	Yes <u> X </u>	No <u> </u>			
Remarks: Sample point upl-jbl-20210727-03 in constructed basin located north of substation. Sample point does not meet wetland criteria as hydric soil and vegetation are not present.					

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A				
2.				
3.				
4.				
5.				
			=Total Cover	
Sapling/Shrub Stratum	(Plot size: 15')			
1. N/A				
2.				
3.				
4.				
5.				
			=Total Cover	
Herb Stratum	(Plot size: 5')			
1. <i>Lotus corniculatus</i>		35	Yes	FACU
2. <i>Schedonorus arundinaceus</i>		30	Yes	FACU
3. <i>Phleum pratense</i>		25	Yes	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		90	=Total Cover	
Woody Vine Stratum	(Plot size: 30')			
1. N/A				
2.				
			=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 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 90	x 4 = 360
UPL species 0	x 5 = 0
Column Totals: 90 (A)	360 (B)
Prevalence Index = B/A = 4.00	

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)

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

Hydrophytic Vegetation

Present? Yes No X

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

Wetland vegetation indicators not present as all vegetation is comprised of FACU species.

SOIL

Sampling Point: jbl-20210727

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		
0-8	10YR 4/3	98	10YR 4/6	2	C	PL/M	Loamy/Clayey	Distinct redox concentrations
8-16	10YR 4/4	85	10YR 4/6	15	C	PL/M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
 Soils disturbed, gravel present. No hydric soil indicators present (distinct redox concentrations along pore linings).

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 One primary and two secondary hydrology indicators present in the form of saturation, surface soil cracks and geomorphic position. Hydrology indicators present due to geomorphic position and recent precipitation. Swale was likely manipulated/formed by substation construction.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fostoria Central Station Expansion Project City/County: Hancock County Sampling Date: 07/27/2021
 Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-20210727-04
 Investigator(s): JBL, CRW Section, Township, Range: 10, 2N, 12E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none) flat

Slope (%): 0 Lat: 41.13808 Long: -83.46090 Datum: NAD 83

Soil Map Unit Name: BIGA1 - Blount silt loam, ground moraine, 0 to 2 percent slopes NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: Sample point upl-jbl-20210727-04 in mowed lawn area located south of substation. Sample point does not meet wetland criteria.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>5'</u>)			
1. <u>Trifolium pratense</u>		<u>30</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Schedonorus arundinaceus</u>		<u>30</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Phleum pratense</u>		<u>25</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Dipsacus fullonum</u>		<u>20</u>	<u>No</u>	<u>FACU</u>
5. <u>Potentilla argentea</u>		<u>5</u>	<u>No</u>	<u>FACU</u>
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		<u>110</u> =Total Cover		
Woody Vine Stratum	(Plot size: <u>30'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=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>110</u>	x 4 = <u>440</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>110</u> (A)	<u>440</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

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)

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

Hydrophytic Vegetation

Present? Yes No X

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

Hydric vegetation not present as all vegetative cover is comprised of FACU species. Dominance Test = 0%

SOIL

Sampling Point: jbl-20210727

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		
0-6	10YR 3/3	100					Loamy/Clayey	
6-16	10YR 4/3	95	10YR 4/6	5	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
 Soils disturbed, gravel present. No hydric soil indicators present (distinct redox concentrations within matrix).

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
---	---

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

Remarks:
 No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fostoria Central Station Expansion Project City/County: Hancock County Sampling Date: 07/27/2021
 Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-20210727-05
 Investigator(s): JBL, CRW Section, Township, Range: 10, 2N, 12E

Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none) flat

Slope (%): 0 Lat: 41.13732 Long: -83.46117 Datum: NAD 83

Soil Map Unit Name: Blg1A1 - Blount silt loam, ground moraine, 0 to 2 percent slopes NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: Sample point upl-jbl-20210727-05 out for adjacent wetland (W-JBL-20210727-01) to the north in between railroad tracks. Sample point does not meet wetland criteria.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>5'</u>)			
1. <u>Phragmites australis</u>		25	Yes	FACW
2. <u>Equisetum arvense</u>		20	Yes	FAC
3. <u>Bromus arvensis</u>		5	No	FACU
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		50 =Total Cover		
Woody Vine Stratum	(Plot size: <u>30'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=Total Cover		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>50</u> (A)	<u>130</u> (B)
Prevalence Index = B/A = <u>2.60</u>	

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

Hydrophytic Vegetation
 Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)
 Herbicide appears to have been sprayed recently. Hydric vegetation present as Dominance test >50% & Prevalence Index less than 3.

SOIL

Sampling Point: -jbl-20210727

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		
0-6	10YR 3/2	100					Sandy	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ rock Depth (inches): _____ 6	Hydric Soil Present? Yes _____ No <u>X</u>
--	---

Remarks:
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
 Soils disturbed, shovel refusal at 6 inches, texture sandy.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No primary hydrology indicators present. FAC-neutral test passed as secondary indicator.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fostoria Central Station Expansion Project City/County: Hancock County Sampling Date: 07/27/2021
 Applicant/Owner: AEP State: OH Sampling Point: upl-jbl-20210727-06
 Investigator(s): JBL, CRW Section, Township, Range: 10, 2N, 12E

Landform (hillside, terrace, etc.): swale Local relief (concave, convex, none) concave

Slope (%): 0 Lat: 41.13879 Long: -83.46195 Datum: NAD 83

Soil Map Unit Name: PmA - Pewamo silty clay loam, 0 to 1 percent slopes NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Remarks: Sample point upl-jbl-20210727-06 in a constructed depressional area between gravel substation and constructed berm. Surface runoff within depressed area does not appear to drain to a WOTUS. Presence of hydric soil and hydrology but not categorized as wetland due to only 50% hydrophytic vegetation being present.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
=Total Cover				
Sapling/Shrub Stratum	(Plot size: <u>5'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
=Total Cover				
Herb Stratum	(Plot size: <u>5'</u>)			
1. <u>Lotus corniculatus</u>		35	Yes	FACU
2. <u>Persicaria pensylvanica</u>		25	Yes	FACW
3. <u>Hordeum jubatum</u>		5	No	FAC
4. <u>Echinochloa crus-galli</u>		5	No	FACW
5. <u>Plantago lanceolata</u>		2	No	FACU
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
72 =Total Cover				
Woody Vine Stratum	(Plot size: <u>5'</u>)			
1. <u>N/A</u>				
2. <u> </u>				
=Total Cover				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (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>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>37</u>	x 4 = <u>148</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>72</u> (A)	<u>223</u> (B)
Prevalence Index = B/A = <u>3.10</u>	

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)

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

Hydrophytic Vegetation

Present? Yes No X

Remarks: (Include photo numbers here or on a separate sheet.)
 Sample area confined to a 5' plot within the swale to exclude adjacent hillside vegetation on the berm. Vegetation disturbed by mowing activities.
 Dominance test not >50%.

SOIL

Sampling Point: jbl-20210727

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	95	10YR 4/6	5	C	PL/M	Loamy/Clayey	Distinct redox concentrations
5-16	10YR 4/2	85	10YR 4/6	10	C	PL/M	Loamy/Clayey	Prominent redox concentrations
			10YR 3/4	5	C	PL/M		Distinct redox concentrations

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input checked="" type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
 Soils disturbed due to past earthwork associated with the construction of the substation and berm. Gravel was present within the soil pit.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 14 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

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

Remarks:
 Surface water was present within the depressional area, however, it was not present at the soil pit.

APPENDIX C**HABITAT AND OTHER IDENTIFIED FEATURES PHOTOGRAPHS**

Client Name: AEP	Site Location: Fostoria Central Station Expansion Project	Project No. 60553286
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Photo 1	
Date: July 27, 2021	
Description: View of mowed/landscaped area north and west of substation Facing North	

Photo 2	
Date: July 27, 2021	
Description: View of landscaped area and agricultural land east of the existing substation Facing North	

Client Name: AEP	Site Location: Fostoria Central Station Expansion Project	Project No. 60553286
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Photo 3	
Date: July 27, 2021	
Description: View of Landscaped area east and south of substation Facing South	

Photo 4	
Date: July 27, 2021	
Description: View of existing gravel pad at substation in central portion of the survey area Facing East	

APPENDIX D
AGENCY COORDINATION



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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

December 6, 2017

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

Re: 17-693; Fostoria Central Station Expansion Project

Project: The proposed project involves the expansion of the existing Fostoria Central Station.

Location: The proposed project is located in Washington Township, Hancock 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 and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federal endangered mussel species, the purple lilliput (*Toxolasma lividus*), a state endangered mussel, the pondhorn (*Uniomorus tetralasmus*), a state threatened mussel, and the black sandshell (*Ligumia recta*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered 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 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

Miller, Brian

From: Ohio, FW3 <ohio@fws.gov>
Sent: Monday, August 9, 2021 9:36 AM
To: Lipp, Thomas
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate; Lubbers, Jake; Miller, Brian; Grant S Stuller
Subject: [EXTERNAL] AEP - Fostoria Central Station Expansion Project, Hancock County, Ohio



TAILS# 03E15000-2021-TA-1844

Dear Mr. Lipp,

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

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

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

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing

may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

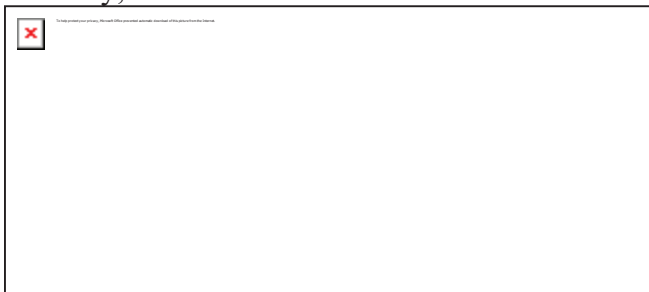
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

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

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

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

Sincerely,



Patrice M. Ashfield
Field Office Supervisor

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

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/1/2021 3:41:05 PM

in

Case No(s). 21-0899-EL-BNR

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