

An AEP Company

BOUNDLESS ENERGY"

PUCO Case No. 22-0175-EL-BNR

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

Submitted by: AEP Ohio Transmission Company, Inc.

March 24, 2022

#### CONSTRUCTION NOTICE

#### AEP Ohio Transmission Company, Inc. West Moulton - Amsterdam 138 kV Transmission Line Project

#### 4906-6-05

AEP Ohio Transmission Company, Inc. (the "Company") provides the following information in accordance with the requirements of Ohio Administrative Code Section 4906-6-05.

#### 4906-6-5(B) General Information

#### **B(1)** Project Description

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

The Company proposes the West Moulton-Amsterdam 138 kV Transmission Line Project ("Project"), which is in Auglaize County, Ohio. The Project involves the construction a new span, approximately 110 feet of 138kV transmission line, which is necessary due to the expansion of the existing West Moulton Station (OPSB Case Number 21-0892-EL-BLN) and a request from Dayton Power & Light (DP&L) for a 138kV interconnection service from their Amsterdam Station to the Company's West Moulton Station. The Company will be responsible for constructing the first span and pole south of the West Moulton Station and DP&L will construct the remaining portion of the 138 kV transmission line. The proposed Project will be constructed on property owned by Ohio Power Company.

Figure 1 and Figure 2, included 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 1(a) of Ohio Administrative Code Section 4906-1-01 Appendix A of the Application Requirement Matrix for Electric Power Transmission Lines:

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

a. *Lines(s)* not greater than 0.2 miles in length.

The Project has been assigned PUCO Case No. 22-0175-EL-BNR.

#### B(2) Statement of Need

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

The West Moulton-Amsterdam 138 kV Transmission Line is associated and included in the overall West Moulton 138 kV Station Expansion Project, which is required due to DP&L's request for 138 kV

interconnection service from their Amsterdam Station to the Company's West Moulton Station. This interconnection will help avoid potential extended outages and improve service to DP&L's customers, including a single 55 MW industrial customer. Further, these improvements will provide operational flexibility to withstand outages in the North portion of DP&L's service territory that has been prone to multiple outages, prevent operations voltage and thermal issues in real-time, and strengthen the underlying 69 kV system. To accommodate this interconnection, the Company will expand the planned 138 kV ring bus at the West Moulton Station and connect the 138 kV line from the West Moulton station to DP&L's West Moulton – Amsterdam 138kV Transmission Line, which is associated with this filing request.

West Moulton Station was originally planned to be converted from a straight bus configuration to a fourcircuit breaker ring bus configuration in a separate Project (s1856) which was presented and reviewed with PJM stakeholders on January 11, 2019. Subsequently with this new interconnection request from DP&L, West Moulton Station is being changed from a four-breaker ring to a six-breaker ring configuration (S2398). Failure to do this project will result in DP&L's ongoing reliability issues to their customers and the potential to drop 55 MW in industrial load under contingency conditions.

The Project was presented by DP&L to PJM and reviewed with stakeholders on October 16, 2020 and was assigned PJM #s2398.

#### B(3) Project Location

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

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

The Project directly impacts the following existing facilities:

West Moulton 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 new construction and connection of the existing West Moulton-Amsterdam 138kV Transmission Line as result of the expansion of the West Moulton 138 kV Station. Other alternatives would require impacting neighboring properties, as opposed to remaining on Company property. The proposed construction of the West Moulton-Amsterdam 138kV Transmission line would also allow for minimized length of adjustments required to tie-into the expansion area of the West Moulton Station. Lastly, the proposed design minimizes disturbance and impacts to existing infrastructure by connecting to the existing West Moulton-Amsterdam 138kV Transmission Line.

Furthermore, The Project is also located on undeveloped fallow land and will not impact any streams. Additionally, the Project will only require clearing of shrubs and grasslands and no permanent impacts are anticipated to occur to delineated wetlands, , detailed below in Section B(10)(f). Relocating the existing station and associated lines off Ohio Power Company property would have a greater impact to property owners, land use, and potential for a greater impact to environmental features. Therefore, the West Moulton-Amsterdam 138kV Transmission line would result in minimal disturbances relative to other design alternatives and represents the most suitable location and most appropriate solution for meeting the Company's and DP&L's needs.

#### **B(5)** Public Information Program

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

The Company maintains a website (<u>http://aeptransmission.com/ohio/</u>) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library in each political subdivision affected by this Project. The Company also retains land agents who will discuss project timelines, construction and restoration activities with affected owners and tenants.

#### **B(6)** Construction Schedule

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

Construction of the Project is anticipated to begin in June 2022, and the anticipated in-service date is December 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, the locations of the existing transmission lines, West Moulton Station, and the proposed transmission line on a map of 1:24,000-scale (1-inch equals 2,000 feet), showing the Project on a topographic map of the Moulton and St. Mary's quadrangle provided by the National Geographic Society. **Figure 2** shows the Project area on recent aerial photography, dated 2021, as provided by Google Earth Aerial Imagery Extension, at a scale of 1:2,400 (1-inch equals 200 feet).

To visit the Project site from Columbus, Ohio, take I-70 West to I-270 North toward Cleveland for approximately 9 miles. Take Exit 17B to merge onto Ohio State Route 161 West/U.S. 33 West. Follow US-33 for approximately 80 miles. Turn left onto Townline Kossuth Road and follow Townline Kossuth Road for 0.2 mile. The western end of the Project site will be on the right. The approximate address of the West Moulton Station site is 13921 Townline Kossuth Road, St. Mary's, Ohio 45885, at latitude 40.552805, longitude -84.339802.

#### **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.

All work activities are proposed on a parcel (PARID#: K3190000801) owned by Ohio Power Company and no other landowners will be directed affected by the project.

#### **B(9)** Technical Features

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

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

The transmission line construction for the West Moulton-Amsterdam 138kV transmission line include the following:

Voltage:	138kV
Conductors:	795 KcmACSR 45/7 Strand, Tern
Static Wire:	7#10 Alumoweld
Insulators:	Polymer
ROW Width:	100-foot
Structure Types:	One (1) double circuit, steel monopole with davit arms

#### 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 \$333,900 using a Class 4 estimate. Pursuant to the PJM OATT, the costs for this Project will be recovered in the AEP Ohio Transmission Company's FERC formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP Zone.

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

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

B(10)(a) Land Use Characteristics

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

An aerial photograph of the Project vicinity is provided as **Figure 2**. The Project location and vicinity have historically been primarily agricultural land with scattered woodlots. The Project is mapped within the northeastern corner of St. Mary's Township, Auglaize County. The Project vicinity is currently rural in nature, and is comprised primarily of agricultural land used for row crops, and lesser amounts of old fields, forested land, landscaped areas, and scattered residences.

### 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 Auglaize County Auditor provided a list of parcels registered as Agricultural District Land on February 9, 2022. As a result, the Project is not located within lands identified as Agricultural District Lands. The Project is located on undeveloped, fallow land and no agricultural land is anticipated to be impacted.

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

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

Phase I Archaeological Investigation and a separate History/Architecture Investigation for the Project occurred in January 2020. No archaeological sites were identified within the Project area, and no historic properties listed or eligible for listing in the National Register of Historic Places were identified. Consultation with the Ohio State Historic Preservation Office ("SHPO") was initiated in January 2020, and an updated response from the Ohio SHPO was received in July 2021, and is included in **Appendix B**. The SHPO stated that the Project will have no effect on historic properties, and that no further investigation or consultation with the SHPO is necessary.

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

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

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

The Company's consultant conducted a stream and wetland delineation within the Project study area. Three wetlands and 1 intermittent stream were identified within the Project study area. Under the West Moulton Substation Expansion Project, the Company received a US Army Corps of Engineers ("USACE") approval for the proposed disturbance and jurisdictional status of the wetlands and streams identified within the Project Study Area. No additional temporary and/or permanent disturbances to wetlands and/or streams are anticipated to be required for this Project. Therefore, coordination with the USACE is not anticipated to be required for this Project. Additional details regarding the delineated features are provided in Section (10)(f) below.

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.

The United States Fish and Wildlife Service (USFWS) Ohio County Distribution of Federally-Listed Candidate Threatened, Endangered, Proposed. and **Species** (available at https://www.fws.gov/midwest/Endangered/lists/pdf/OhioCtyList29Jan2018.pdf) was reviewed to identify the threatened and endangered species known to occur in the Project county. This USFWS publication lists the Indiana bat (Myotis sodalis; federally endangered) and northern long-eared bat (Myotis septentrionalis; federally threatened). On March 2, 2018, coordination letters were sent to USFWS and the Ohio Department of Natural Resources (ODNR) soliciting responses.

Responses were received from the USFWS on March 9, 2018 and from the ODNR on March 23, 2018. According to a response letter received from the USFWS on March 9, 2018, this Project is located within the range of the federally endangered Indiana bat and federally threatened northern long-eared bat. With regard to state threatened and endangered species that may occur within the Project vicinity, five species were listed by ODNR. These species included: Indiana bat, club shell, pondhorn, greater redhorse, and lark sparrow. No impacts are anticipated to the club shell, pondhorn, or greater redhorse, as no in-water work is proposed as part of the Project. A copy of the agency correspondence is provided in **Appendix C**.

Based on general observations during the ecological survey, a portion of the Project survey corridor contained potential summer habitat for the Indiana bat and the northern long-eared bat. The USFWS commented that due to the project type, size, and location, and the proposal to adhere to seasonal tree cutting between October 1 and March 31, there should be no adverse effects to the Indiana bat or northern long-eared bat. ODNR stated that presence of the Indiana bat has been established in the area, therefore additional summer surveys would not constitute presence/absence in the area and if trees must be cut, the Department of Wildlife (DOW) recommends seasonal tree clearing activities to occur between October 1 and March 31. Based on review of the existing land use associated with the Project area, no tree clearing is anticipated to be required for the Project.

The DOW indicated that the Project is within the range of the lark sparrow, a state endangered bird. The sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, and patches of bare soil. The DOW stated if potential habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. The Company's consultant completed a field assessment within the Project area on May 26, 2020 and no potential habitat was identified within the Project area. Therefore, the Project is not anticipated to have an adverse effect on lark sparrow or its nesting habitat. Additional information regarding habitat assessments within the Project area is provide within the Wetland Delineation and Stream Assessment Report found in **Appendix D**.

#### B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, 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 and Addendum Wetland Delineation and Steam Assessment Report, which are provided in **Appendix D**. The survey of the Project area identified a total of three wetlands totaling 1.57 acres and one intermittent stream. One delineated wetland was classified as palustrine emergent (PEM), and the other two wetlands were each classified as PEM and palustrine shrub/scrub (PSS) complexes.

The Project is not anticipated to require permanent disturbances to wetland areas as well as no streams will be impacted by the Project. However, one PEM wetland (Wetland 02a) will have temporary timber matting for equipment access installed within the previously approved disturbance area associated with the West Moulton Station PCN authorization. Therefore, no further coordination regarding disturbances to wetlands and/or streams are anticipated for this Project.

#### B(10)(g) Unusual Conditions

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

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**





## Appendix B SHPO Coordination



In reply, refer to 2020-AUG-47151

July 7, 2021

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

#### RE: West Moulton Station Expansion Project, Saint Marys Township, Auglaize County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on July 2, 2021 regarding the proposed West Moulton Station Expansion Project, Saint Marys Township, Auglaize County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the 5.9 ha (14.6 ac) West Moulton Station Expansion Project in St. Marys Township, Auglaize County, Ohio* by Weller & Associates, Inc. (2020). This report is an update of the report originally received by our office on January 7, 2020.

A literature review, visual inspection, surface collection, shovel probe, and shovel test unit excavation was completed as part of the investigations. In 2020, no previously identified archaeological sites were located within the project area and no new archaeological sites were identified in the project area. A small section of project area was added to the northern boundary of the original 2020 project area. No archaeological sites were identified in this new area. Our office agrees no additional archeological investigation is needed.

The following comments pertain to the *History/Architecture Investigations for the 5.9 ha (14.6 ac) West Moulton Station Expansion Project in St. Marys Township, Auglaize County, Ohio* by Weller & Associates, Inc. (2020). This report is an update of the report originally received by our office on January 7, 2020.

A literature review and field survey were completed as part of the investigations. In 2020, seventy (17) resources (including one extant OHI property) was identified within the study area that may have a direct line of sight to the project. It was Weller's recommendation that the identified properties were not eligible for listing in the National Register of Historic Places (NRHP). Our office agreed with Weller's recommendation. No additional properties were identified within the additional project area or study area.

Based on the information provided, our office continues to agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at <u>khorrocks@ohiohistory.org</u>. Thank you for your cooperation.

Sincerely,

Krista Horrocks, Project Reviews Manager Resource Protection and Review

RPR Serial No: 1089191-1089192

### Appendix C ODNR and USFWS Correspondence





JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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

March 23, 2018

Jason Tucker AECOM 525 Vine Street, Suite 1800 Cincinnati, Ohio 45202

Re: 18-409; Wapakoneta Improvements Project

**Project:** The proposed project includes a new Gristmill Station, a new Gemini Station, a new 138 kV transmission line between Gristmill and Gemini Stations, a new 138 kV transmission line between Gemini and West Moulton Stations, and expanding the West Moulton Station.

**Location:** The proposed project is located in Pusheta and Washington Townships, Auglaize County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Natural Heritage Database:** The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Greater redhorse (*Moxostoma valenciennesi*), State threatened, federal species of concern Great blue heron rookery

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

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 area east of Dixie Highway and south of Weimert School Road is within the vicinity of records for the Indiana bat (Myotis sodalis), a state endangered and federally endangered species. Presence of the Indiana bat has been established in the area, and therefore additional summer surveys would not constitute presence/absence in the area. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (Carya ovata), shellbark hickory (Carya laciniosa), bitternut hickory (Carya cordiformis), black ash (Fraxinus nigra), green ash (Fraxinus pennsylvanica), white ash (Fraxinus americana), shingle oak (Ouercus imbricaria), northern red oak (Ouercus 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 (Ouercus 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.

The remainder of the project area is within the range of the Indiana bat (*Myotis sodalis*). If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, and the pondhorn (Uniomerus tetralasmus), a state threatened mussel. This project must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2016), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 10 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. This is further explained within the Ohio Mussel Survey Protocol. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. The Ohio Mussel Survey Protocol (2018) can be found at:

http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/licenses%20&%20permits/OH%20Mussel%20Su rvey%20Protocol.pdf

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

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, the project is not likely to impact this species.

The DOW has a record for a great blue heron rookery within the boundary of the project area. The rookery is located within the large woodlot between the following roads: Washington Pike, Burr Oak Road, Kettlersville Road, and Kohler Road. Nesting great blue herons are protected under the Migratory Bird Treaty Act of 1918. Impacts to great blue heron rookeries can have a significant impact on a local population due to the large number of birds that return each year to the same rookery to nest. Rookeries often include a certain set of characteristics that are not easily found elsewhere. The DOW recommends that construction activity within the rookery be avoided to preserve the rookery. If construction within the rookery cannot be avoided, the DOW recommends at the very least, the rookery be avoided during the nesting season of March 1 through June 31 as to not interfere with nesting birds. In addition, the DOW recommends a 100 yard no activity buffer be maintained around the rookery during the breeding season as to not interfere with nesting birds.

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

#### Tucker, Jason

From: Sent: To: Subject: susan\_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov> Friday, March 09, 2018 10:35 AM Tucker, Jason Wapakoneta Transmission Infrastructures (Several 138 kV Stations) in Auglaize Co.



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



TAILS# 03E15000-2018-TA-0902

Dear Mr. Tucker,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees  $\geq$ 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats, we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service (Service) should be initiated to assess any potential impacts.

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

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.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,

anven

Dan Everson Field Supervisor

### Appendix D Ecological Resources Inventory Report

## WEST MOULTON STATION EXPANSION PROJECT AUGLAIZE 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:



525 Vine Street, Suite 1800 Cincinnati, Ohio 45202

Project #: 60567952

January 2020



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#### LIST OF ACRONYMS and ABBREVIATIONS

AECOM	AECOM Technical Services, Inc.
AEP Ohio Transco	American Electric Power Ohio Transmission Company
DBH	Diameter at Breast Height
DOW	Division of Wildlife
DWR	Division of Water Resources
FAC	Facultative
FACU	Facultative upland
FACW	Facultative wetland
GIS	Geographic Information System
GNSS	Global Navigation Satellite System
HHEI	Headwater Habitat Evaluation Index
IBI	Index of Biotic Integrity
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OAC	Ohio Administrative Code
OBL	Obligate wetland
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OHWM	Ordinary High Water mark
ONHD	Ohio Natural Heritage Database
ORAM	Ohio Rapid Assessment Method
PEM	Palustrine emergent
PFO	Palustrine forested
PSS	Palustrine scrub/shrub
PUB	Palustrine unconsolidated bottom
PHW	Primary Headwater
QHEI	Qualitative Habitat Evaluation Index
ROW	Right-of-way
UDF	Upland Drainage Feature
UPL	Upland
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOTUS	Waters of the U.S.



#### 1.0 INTRODUCTION

American Electric Power Ohio Transmission Company (AEP Ohio Transco) proposes to expand the existing West Moulton Station (Project) in Auglaize County, Ohio. The Project is one part of the Wapakoneta Improvements Project, having separate Wetland Delineation and Stream Assessment reports for each project component. AEP Ohio Transco identified the existing 14-acre property boundary as the study area for the Project, encompassing the existing West Moulton Station and two transmission lines, as the potential work area (Project survey area). The proposed Project location is illustrated on Figure 1.

The purpose of the field survey was to assess the presence of wetlands and other "Waters of the United States (WOTUS)" within the Project survey area. Secondarily, land cover was recorded to classify and characterize potential habitat for rare, threatened, and endangered species. This report will be used to assist AEP Ohio Transco's efforts to identify potential WOTUS and rare, threatened and endangered species habitat present within the Project survey area to avoid and/or minimize impacts to those resources during construction activities.

#### 2.0 METHODOLOGY

Prior to conducting field surveys, digital United States (U.S.) Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil surveys, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, U.S. Geological Survey (USGS) National Hydrography Dataset (NHD), and USGS 7.5-minute topographic maps were reviewed to identify the occurrence and location of potential wetlands and streams in the Project survey area.

Field survey activities included recording the physical boundaries of observed water features using submeter capable EOS Arrow Global Navigation Satellite System (GNSS) units in conjunction with ArcCollector application on iPad tablets. The GNSS data was imported into ArcMap Geographic Information System (GIS) software, where the data was 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. Land uses observed within the Project survey area were assigned a general classification based upon the principal land characteristics and vegetation cover of the location.

#### 2.1 WETLAND DELINEATION

The Project survey area was evaluated according to the procedures outlined in the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (*1987 Manual*) (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0) (*MW 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 *MW Regional Supplement* was developed to address regional wetland characteristics and improve the accuracy and efficiency of wetland delineation procedures.

During field survey activities AECOM Technical Services Inc. (AECOM) utilized the routine on-site delineation method described in the *1987 Manual* and *MW Regional Supplement* that consisted of a pedestrian site reconnaissance, including soils identification, geomorphologic assessment of hydrology, identification of vegetative communities, and notation of disturbance. The methodology used to examine each parameter is described in the following sections.

#### 2.1.1 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 (*MW 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 *MW Regional Supplement*.

#### 2.1.2 HYDROLOGY

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

The *MW 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 (five years out of 10, or 50 percent probability) date of the last and first 28° F air temperature in the spring and fall, respectively. The National Weather Service WETS data review from the NRCS National Water and Climate Center for Auglaize County, Ohio stated that all three stations lacked sufficient data for this analysis. Therefore, data from neighboring Allen County was reviewed and it was found that in an average year, this period

lasts from April 10 to November 3, or 207 days. For the Project survey area, five percent of the growing season equates to approximately 10 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 *MW Regional Supplement*. Evidence indicating wetland hydrology typically includes primary indicators such as surface water, saturation, water marks, drift deposits, water-stained leaves, sediment deposits and oxidized rhizospheres on living roots; and secondary indicators such as drainage patterns, geomorphic position, micro-topographic relief, and a positive Facultative (FAC)-neutral test (USACE, 2010).

#### 2.1.3 VEGETATION

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

#### 2.1.4 WETLAND CLASSIFICATION

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 (Cowardin classifications). 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 area. 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.

**PSS** – Palustrine scrub/shrub wetlands are characterized by woody vegetation that is less than three inches diameter at breast height (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.

*PFO* – Palustrine forested wetlands are characterized by woody vegetation that is three inches or more DBH, regardless of total height. These wetlands generally include an overstory of broad-leaved and needle-leaved trees, an understory or young saplings and shrubs, and an herbaceous layer.

**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.

#### 2.1.5 OHIO RAPID ASSESSMENT METHOD v. 5.0

The Ohio Environmental Protection Agency (OEPA) *Ohio Rapid Assessment Method for Wetlands v. 5.0* (ORAM; Mack, 2001) was developed to determine the relative ecological quality and level of disturbance of a wetland in order to meet requirements under the Clean Water Act Section 401 Certification. Wetlands are scored based on the integrity of existing 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** – 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, 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 the above characteristics. For example, a forested wetland located in the flood plain of a river may exhibit "superior" hydrologic functions (e.g., flood retention, nutrient removal), but not contain mature trees or high levels of plant species diversity.

#### 2.2 STREAM 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, 2018). Streams assessed in the Project survey area were reviewed for existing OEPA Aquatic Life Use Designations per OEPA's Water Quality Standards (Ohio Administrative Code [OAC] Chapter 3745-1). Those without an existing use designation were assigned a provisional aquatic life use designation based upon habitat assessment results (Rankin, 1989).

#### 2.2.1 OEPA QUALITATIVE HABITAT EVALUATION INDEX

AECOM Imagine IL. Delivered.

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, streams with natural pools greater than 15.75 in 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 regulated public, the OEPA has assigned narrative ratings to QHEI scores. The ranges vary slightly for headwater streams ("H" are those with a watershed area less than or equal to 20 square miles) versus larger streams ("L" are those with a watershed area greater than 20 square miles). The Narrative Rating System includes: Very Poor (<30 H and L), Poor (30 to 42 H, 30 to 44 L), Fair (43 to 54 H, 45 to 59 L), Good (55 to 69 H, 60 to 74 L) and Excellent ( $\geq$ 70 H,  $\geq$ 75 L).

#### 2.2.2 OEPA PRIMARY HEADWATER HABITAT EVALUATION INDEX

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

insufficient to fully support the biological criteria associated with other sub-categories of aquatic life described OAC 3745-1-07.

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

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

*Small Drainage Warmwater Streams*: are equivalent to "warmwater habitat" streams and exhibit intermittent or perennial flow. This stream class has a "moderately diverse community of warmwater adapted native fauna either present seasonally or year-round" (OEPA, 2018). The species communities are composed of vertebrates (fish and salamanders) and/or benthic macroinvertebrates that are considered pioneering and/or temperature facultative species.

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

#### 2.2.3 OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

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

*Eligible*: Streams within the watershed are eligible for coverage under OEPA'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 OEPA's 401 Water Quality Certification for Nationwide Permits depending on the results of a field screening assessment. The procedures for determining individual stream eligibility in this scenario are specified in Appendix C "Stream Eligibility Determination Process" of the OEPA Ohio State Water Quality Certification.

#### 2.3 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). In addition, UDF's are "generally not waters of the U.S. because they are not tributaries or they do not have a significant nexus to TNWs. Even when not themselves waters of the United States, swales may still contribute to a surface hydrologic connection between an adjacent wetland and a TNW."

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.

#### 2.4 RARE, THREATENED AND ENDANGERED SPECIES

AECOM conducted a rare, threatened, and endangered species review and general field habitat surveys within the Project survey area. The first phase of the review involved a review of online lists of federally and state-listed species. In addition to the review of available lists, AECOM submitted a request to Ohio Department of Natural Resources (ODNR) Office of Real Estate – Environmental Review Section as well

as the USFWS in August 2019 soliciting comments for the proposed Project. Agency-identified rare, threatened, and endangered 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 area were assigned a general classification based upon the principal land characteristics and vegetative cover as observed during the field surveys.

#### RESULTS 3.0

In December 2019, an AECOM ecologist walked the Project survey area to conduct the wetland delineation, stream assessment, and habitat survey. Within the Project survey area, AECOM delineated three wetlands and one stream. No ponds were delineated. These features are discussed in detail in the following sections.

#### 3.1 WETLAND DELINEATION

#### 3.1.1 PRELIMINARY SOILS EVALUATION

Soils in delineated wetlands were observed and documented as part of the delineation methodology. According to the USDA NRCS Web Soil Survey of Auglaize County, Ohio, and the USDA NRCS Hydric Soils Lists of Ohio, three soil types are mapped within the Project survey area (NRCS, 2019). One soil map unit is identified as hydric, while the other map unit has hydric components that may comprise nine percent of the area mapped within the unit. Table 1 provides a detailed overview of all soil series and soil map units within the Project survey area. Soil map units located within the Project survey area are shown on Figure 2.

TABLE 1
SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE WEST MOULTON STATION EXPANSION PROJECT
SURVEY AREA

Soil Series	Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Blount	Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	end moraines, till plains	No	Pewamo, end moraine 6%
Glynwood	Gwe1B1	Glynwood silt loam, end moraine, 2 to 6 percent slopes	end moraines, till plains	No	Pewamo 6%
Pewamo	Pt	Pewamo silty clay loam, 0 to 1 percent slopes	depressions, till plains	Yes	Pewamo 85% Montgomery 5%

USDA, NRCS. 2019 Soil Survey Geographic (SSURGO) Database for Auglaize County, Ohio. Available online at: http://soildatamart.nrcs.usda.gov/

USDA, NRCS. National Hydric Soils List by State (Soil Data Access Live query). Available online at: https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcseprd1316619.html

#### 3.1.2 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. The USFWS website states that the NWI maps are not intended or designed for jurisdictional wetland identification or location. As a result, NWI maps do not show all the wetlands found in a particular area nor do they necessarily provide accurate wetland boundaries. NWI maps are useful for providing indications of potential wetland areas, which are often supported by soil mapping and hydrologic predictions, based upon topographical analysis using USGS topographic maps.

According to the NWI data for the project vicinity, the Project survey area contains one NWI mapped wetland identified as a riverine, intermittent streambed, seasonally flooded (R4SBC) system. This wetland is correlated to the one delineated stream feature (see Section 3.2). One additional NWI wetland is mapped approximately 200-feet south of the Project survey area, namely a palustrine, unconsolidated bottom, intermittently exposed, diked/impounded feature (PUBGh). The locations of NWI mapped wetlands are shown on Figure 2.

#### 3.1.3 DELINEATED WETLANDS

During the field survey, AECOM identified three wetlands within the Project survey area. These three wetlands were identified across the northern portion of the Project survey area in old field and scrubshrub habitats. The wetlands ranged from approximately 0.04 to 0.06 acre. The locations of the wetlands are shown on Figure 3. See Table 2 for a summary of the delineated wetlands within the Project survey area. Completed USACE and ORAM wetland delineation forms are provided in Appendix A and B, respectively. Color photographs taken of the wetlands are provided in Appendix C.

Wetland Name	Latitude	Longitude	Cowardin Wetland Typeª	ORAM Score <sup>b</sup>	ORAM Category⁵	Acreage within Project Survey Area
Wetland 01	40.55235	-84.33982	PEM	20	Category 1	0.02
Wetland 02a	40.5529	-84.34085	PEM	26	Cotogony 1	0.74
Wetland 02b	40.55336	-84.34057	PSS	20	Category 1	0.05
Wetland 03a	40.55296	-84.34315	PEM	28.5	Category 1	0.67
Wetland 03b	40.55241	-84.3438	PSS			0.08
Totals: 3 Wetland	s					1.56

TABLE 2 DELINEATED WETLANDS WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY AREA

Cowardin Wetland Type<sup>a</sup>: PEM = palustrine emergent; PSS = palustrine scrub-shrub

ORAM<sup>b</sup> Scoring Category: 0-29.9 = Category 1

#### 3.1.4 DELINEATED WETLANDS ASSESSMENT

Within the Project survey area, each of the delineated wetlands were assessed as Category 1 wetlands. A breakdown of the ORAM score can be found in Table 2. The completed ORAM forms are provided in Appendix B.

#### **Category 1 Wetlands**

The three delineated wetlands were each assessed as Category 1 wetlands, including one PEM wetland (Wetland 01) and two PEM/PSS wetlands (Wetland 02 and Wetland 03). These wetlands ranged from 0.02-acre to 0.79-acre in size (within the Project study area), being dominated by the invasive emergent *Phalaris arundinaceus* (reed canary grass), exhibited narrow to medium buffers with low to high intensity surrounding land uses, having disturbances recorded to hydrologic regime, substrate and habitat, and poor to fair habitat development.

#### Category 2 Wetlands

No Category 2 wetlands were identified during the field survey.

#### **Category 3 Wetlands**

No Category 3 wetlands were identified during the field survey.

#### 3.2 STREAM ASSESSMENT

During the field survey, AECOM identified one stream within the Project survey area. This intermittent stream (Stream 01) was identified in the southwest corner of the Project survey area, flowing to the south, parallel to the west Project survey area boundary for an extended length before entering the Project survey area for approximately 13 feet, then flowing to a culvert under Plank Pike and leaving the Project survey area. Stream assessment data form is provided in Appendix C, and the location of this stream is shown on Figure 3.

Stream 01 was assessed using HHEI methodology, having a drainage area of 0.11 square mile and appeared to be recovering from past stream channel modifications (straightening/relocation). The stream was flowing at the time of assessment, having substrates dominated by gravel and sand, with a maximum pool depth of 12-inches (30 centimeters) and an average bankfull width of 4.6-feet (1.4 meter.) The assessment resulted in a score of 65 and a provisional use designation as a Modified Small Drainage Warmwater Stream.

The location of Stream 01 is consistent with a USGS mapped, unnamed intermittent stream, an NHD stream and a NWI-mapped riverine feature. The Project survey area occurs within the East Branch

watershed (HUC-12: 041000040103) of the Saint Marys River basin, which is designated as an OEPA 401 Eligible watershed, as indicated on Figure 3.

#### 3.3 PONDS

No ponds were identified within the Project survey area.

#### 3.4 UPLAND DRAINAGE FEATURES

Several upland drainage features (UDFs) were mapped within the Project survey area. These include a roadside ditch/drainage swale along Townline-Kossuth Road and constructed drainage swales around the existing substation and along field drives through the existing transmission line right of way (ROW). Upland drainage features are mapped on Figure 3. Representative photographs are provided in the photographic log in Appendix D.

#### 3.5 VEGETATIVE COMMUNITIES

AECOM conducted a general habitat survey in conjunction with the stream and wetland field surveys in December 2019. Portions of the Project survey area was identified to contain either agricultural land, landscaped areas, old field, shrub-scrub, successional woodland, urban, or stream/wetland vegetative communities. Habitat descriptions, applicable to the Project and details on the expected impacts of construction are provided below. Vegetated land cover can be seen visually from aerial photography provided on Figure 4.
TABLE 3
VEGETATIVE COMMUNITIES WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY
AREA

Vegetative Community	Description	Approximate Acreage	Approximate Percentage
Agricultural Land	Land utilized for row crops, whether planted or not, and not used for pasture or hay fields.	1.4	9.5
Landscaped Areas	Residential and commercial properties having frequently mowed grasses and forbs.	0.9	6.1
Old Field	Herbaceous cover exhibiting the earliest stages of recolonization by plants following disturbance, typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed. Old field areas identified were infrequently maintained areas of grasses and forbs with occasional shrubs.	5.0	34.0
Shrub-Scrub	The presence of shrubby woody vegetation covering at least 30% of the land surface, representing a successional stage between old field and second growth forest. Dominant species consist of herbaceous communities similar to old field habitat with a few woody species, to a community dominated by woody shrubs and/or sapling tree species.	3.5	23.8
Successional Woodland	Successional mixed hardwood woodland dominated by black locust ( <i>Robinia pseudoacacia</i> ), black cherry ( <i>Prunus serotina</i> ), and Tree of Heaven ( <i>Ailanthus</i> <i>altissima</i> ). The dominant shrub/sapling-layer included gray dogwood ( <i>Cornus racemosa</i> ) and Morrow's honeysuckle ( <i>Lonicera morrowii</i> ).	0.7	4.8
Urban	Developed areas with residential and commercial land uses, including roads, buildings and parking lots, generally devoid of significant woody and herbaceous vegetation.	1.6	10.9
Stream/Wetland	All delineated wetlands, including emergent, scrub-shrub and forested components.	1.6	10.9
	Totals:	14.7	100%

### 3.6 RARE, THREATENED AND ENDANGERED SPECIES

#### Protected Species Agency Coordination

AECOM conducted a rare, threatened, and endangered species review for the AEP Wapakoneta Improvements Project which includes the West Moulton Station Expansion Project survey area. A summary of the agency coordination responses is provided below. Correspondence letters from the USFWS and ODNR are included as Appendix E. Table 4 provides a list of federal and state-listed threatened and endangered species identified by agencies as possibly occurring within or near the Project.



Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project	Impact Assessment	Agency Comments
Mammals				Survey Area		
Indiana bat ( <i>Myotis sodalis</i> )	Endangered	Endangered	Winter Indiana bat hibernacula include caves and mines, while summer habitat typically includes tree species exhibiting exfoliating bark or cavities that can be used for roosting. The 8- to 10-inch diameter size classes of several species of hickory ( <i>Carya</i> spp.), oak ( <i>Quercus</i> spp.), ash ( <i>Fraxinus</i> spp.), birch ( <i>Betula</i> spp.), and elm ( <i>Ulmus</i> spp.) have been found to be utilized by the Indiana bat. These tree species and many others may be used when dead, if there are adequately sized patches of loosely-adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes a mixture of loose-barked trees with 60 to 80 percent canopy closure and a low-density sub-canopy (less than 30 percent between about 6 feet high and the base canopy). The suitability of roosting habitat for foraging or the proximity to suitable foraging habitat is critical to the evaluation of a particular tree stand. An open subcanopy zone, under a moderately dense canopy, is important to allow maneuvering while catching insect prey.	Yes	Potentially suitable habitat is present within the Project area (successional woodlands), primarily restricted to the south boundary of the Project survey area. This Project does not anticipate any need to clear trees; the proposed project is not likely to adversely affect this species.	ODNR commented that presence of the Indiana bat has been established in the project area, and therefore additional summer surveys would not constitute presence/absence in the area. If suitable habitat occurs within the project area, ODNR recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, cutting should occur between October 1 and March 31. USFWS commented that due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats, that they do not anticipate adverse effects to this species.

TABLE 4

#### ODNR AND USFWS LISTED SPECIES WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY AREA



TABLE 4

#### ODNR AND USFWS LISTED SPECIES WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments
Northern long- eared bat ( <i>Myotis</i> septentrionalis)	Threatened	Threatened	Winter hibernacula include caves and mines, while summer habitat typically includes tree species exhibiting exfoliating bark or cavities that can be used for roosting. The 8- to 10-inch diameter size classes of several species of hickory ( <i>Carya</i> spp.), oak ( <i>Quercus</i> spp.), ash ( <i>Fraxinus</i> spp.), birch ( <i>Betula</i> spp.), and elm ( <i>Ulmus</i> spp.) have been found to be utilized by northern long-eared bats. These tree species and many others may be used when dead, if there are adequately sized patches of loosely- adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes a mixture of loose-barked trees with 60 to 80 percent canopy closure and a low density sub-canopy (less than 30 percent between about 6 feet high and the base canopy). The suitability of roosting habitat for foraging or the proximity to suitable foraging habitat is critical to the evaluation of a particular tree stand. An open subcanopy zone, under a moderately dense canopy, is important to allow maneuvering while catching insect prey. Northern long-eared bats have also been found, albeit rarely, roosting in structures like barns and sheds.	Yes	Potentially suitable habitat is present within the Project area (successional woodlands), primarily restricted to the south boundary of the Project survey area. This Project does not anticipate any need to clear trees; the proposed project is not likely to adversely affect this species.	USFWS commented that due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to northern long- eared bats, that they do not anticipate adverse effects to this species. ODNR did not provide any comments regarding this species
Fish				-	-	
Greater redhorse ( <i>Moxostoma</i> <i>valenciennesi</i> )	Threatened	Species of Concern	Found in medium to large rivers in the Lake Erie drainage system. Only found in limited portions of the Sandusky, Maumee, and Grand River systems. Greater redhorse is typically found in pools with clean sand or gravel substrate, but are intolerant of pollution and turbid water.	No	No effect on this species as no suitable habitat is present.	ODNR stated if no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.
Mussels						
Clubshell ( <i>Pleurobema</i> <i>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	No effect on this species as no suitable habitat is present.	ODNR stated that due to the location and that there is no in-water work proposed, the Project is not likely to impact this species



Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments
Pondhorn (Uniomerus tetralasmus)	Threatened	None	This species typically inhabits the quiet or slow- moving, shallow waters of sloughs, borrow pits, ponds, ditches, and meandering streams. It is tolerant of poor water conditions and can be found well buried in a substrate of fine silt and/or mud.	No	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location and that there is no in-water work proposed, the Project is not likely to impact this species
Birds						
Lark sparrow (Chondestes grammacus)	Endangered	None	Lark Sparrows nest in open grassy habitats with scattered trees and shrubs including orchards, fallow fields, open woodlands, mesquite grasslands, savanna, sagebrush steppe, and grasslands. During migration and winter they use similar habitats, but can also be found in pine-oak forest, thorn scrub, and agricultural areas with scattered trees and hedgerows.	Yes	Suitable habitat (old field and shrub-scrub) is present. Project may potentially impact nesting Lark sparrows.	ODNR stated if this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, the project is not likely to impact this species.

TABLE 4

### ODNR AND USFWS LISTED SPECIES WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY AREA

#### **ODNR** Coordination

Coordination with the ODNR was initiated during the planning stages of the Project to obtain Ohio Natural Heritage Database (ONHD) records located in the vicinity of the project. On March 23, 2018, the ODNR Office of Real Estate Environmental Review Section provided comments on the Project based on an inter-disciplinary review. The ONHD, Division of Wildlife (DOW), and the Division of Water Resources (DWR) provided comments regarding their respective regulatory authorities.

The ONHD review stated that the greater redhorse (*Moxostoma valenciennesi*) and a great blue heron rookery is known to be within a one-mile radius of the (AEP Wapakoneta Improvements) Project area. Subsequent information provided by DOW locates the rookery approximately 4.8-miles southeast of the current Project survey 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 noted that the (AEP Wapakoneta Improvements) Project area east of Dixie Highway and south of Weimert School Road is within the vicinity of records for the Indiana bat, a state and federally endangered species. Presence of the Indiana bat has been established in the area, therefore additional summer surveys would not constitute presence/absence in the area. If suitable habitat occurs within the Project area, the DOW recommends trees be conserved but, if trees must be cut, the DOW recommends cutting between October 1 and March 31 (seasonal tree clearing guidelines). This area is approximately 10 miles east of the current Project survey area.

The DOW indicated that the Project is within the range of the club shell, a state-endangered and federally endangered mussel; the pondhorn, a state threatened mussel; and the greater redhorse, a state threatened fish. DOW stated this project must not have an impact on freshwater native mussels at the Project site. ODNR stated that due to the location and that there is no in-water work proposed, the Project is not likely to impact these species.

The DOW indicated that the Project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. If potential habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, the project is not likely to impact this species. Coordination with DOW regarding presence/absence surveys may be optional based on the habitat and surrounding landuse types.

The DOW indicated that the (AEP Wapakoneta Improvements) Project is within the range of great blue heron rookery and that nesting great blue herons are protected under the Migratory Bird Treaty Act of

1918. Subsequent information provided by DOW locates the rookery approximately 4.8-miles southeast of the current Project survey area. As such, the Project will not impact this resource.

### **USFWS** Coordination

Coordination with the USFWS was initiated during the planning stages of the Project to obtain technical assistance in regard to federally listed species that may occur within the Project vicinity. In a letter dated March 9, 2018, the USFWS indicated that there are no Federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project.

The USFWS noted that the Project lies within the range of the federally endangered Indiana bat (*Myotis sodalis*), and the federally threatened northern long-eared bat (*Myotis septentrionalis*). USFWS stated that due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees  $\geq$ 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats, that they do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species.

#### 4.0 SUMMARY

The ecological survey of the Project survey area delineated three wetlands and one stream. The three wetlands were each assessed as Category 1 wetlands, with one identified as a PEM wetland and two identified as PEM/PSS wetlands. The stream was assessed as a Modified Small Drainage Warmwater Stream having an intermittent flow regime.

According to a response letter received from the USFWS on March 9, 2018, this Project is not anticipated to have adverse effects to federally endangered, threatened, proposed, or candidate species. With regard to state threatened and endangered species that may occur within the Project vicinity, six species were identified by ODNR including the following: Indiana bat, northern long-eared bat, club shell, pondhorn, lark sparrow and greater redhorse. No impacts are anticipated to these species.

Based on general observations during the ecology survey, the Project survey area contains limited potential summer habitat for the Indiana bat and the northern long-eared bat as successional woodland along the south Project boundary. The agencies do not anticipate impacts to these species due to the project type, size, location, and proposed implementation of seasonal tree cutting (during October 1 and March 31), to avoid impacts to these bat species.

The reported results of the ecological survey conducted by AECOM on this Project are limited to the areas within the Project survey area boundary (provided in Figures 2 through 4). Areas that fall outside of the Project survey area boundary 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. Final jurisdictional determination of WOTUS can only be made by the USACE.

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APPENDIX A

U.S. ARMY CORPS OF ENGINEERS

WETLAND DETERMINATION DATA FORMS

Project/Site: West Moulton Station / W01	City/County: Auglaize Sampling Date: 12/23					
Applicant/Owner: AEP				State: OH	Sampling Po	int: w-bl-20191223-01
Investigator(s): BL	estigator(s): BL Section, Township					
Landform (hillside, terrace, etc.): plains			Local relief	(concave, convex, none):	concave	
Slope (%): 2 Lat: 40.55235		Long: -	84.33982		Datum: WGS84	
Soil Map Unit Name: Gwe1B1 - Glynwood silt loam, end	moraine, 2 to			NWI class	ification: N/A	
Are climatic / hydrologic condidions on the site typical for			Yes x	No(If no, expla		-
Are Vegetation, Soil, or Hydrology	-			nal Circumstances" prese		No x
Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology				xplain any answers in Ren		No <u>x</u>
SUMMARY OF FINDINGS - Attach site map si						
	liowing ou					
	10 <u> </u>		Sampled Area		NI-	
-	10 <u> </u>	Within	a Wetland?	Yes <u>x</u>	No	
Remarks: some snow cover and ice present; drainage swale w/2 U	IDF's draining	into from sub	station: wetlan	d continues off-site to sou	ith to manned NW	I/PLIB
			Station, Wolan			
VEGETATION - Use scientific names of plan	ts.					
Tree Stratum (Plot size: 30' radius )	Absolute	Dominant	Indicator	Dominance Test work	rahaat:	
<u>Tree Stratum</u> (Plot size: 30' radius ) 1. <i>n/a</i>	% Cover	Species?	Status	Dominance Test work		
2.				Number of Dominant S Are OBL, FACW, or FA		3 (A)
3.				Total Number of Domin		((1)
4.				Across All Strata:	iant opeoles	3 (B)
5.				Percent of Dominant S	pecies That	
	0	=Total Cover		Are OBL, FACW, or FA		100% (A/B)
Sapling/Shrub Stratum (Plot size: 15' radius	)					
1. Sambucus nigra	10	yes	FAC	Prevalence Index wor		
2. Cornus alba	3	yes	FACW	Total % Cover of:	Multiply I	-
3.				· · ·	0 x 1 =	0
4 5				· ·	81 x 2 = 10 x 3 =	162 30
J	13	=Total Cover		· · · · ·	5 x 4 =	20
Herb Stratum (Plot size: 5' radius )					0 x 5 =	0
1. Phalaris arundinaceus	70	yes	FACW	· · · ·	96 (A)	212 (B)
2. Bidens frondosa	3	no	FACW	Prevalence Index = B/A		.21
3. Solidago sp.	5	no	FACU			
4. Conium maculatum	5	no	FACW	Hydrophytic Vegetation	on Indicators:	
5				1 - Rapid Test for H	-lydrophytic Veget	ation
6				x 2 - Dominance Tes		
7				x 3 - Prevalence Inde		
8 9				4 - Morphological A	in Remarks or on a	
10.				Problematic Hydror		, ,
	83	=Total Cover		*Indicators of hydric soi		,
Woody Vine Stratum (Plot size: 30' radius	)			present, unless disturbe		
1. <i>n/a</i>				Hydrophytic		
2.					x No	
	0	=Total Cover		Present?		
Remarks: (Include photo numbers here or on a separate	sheet.)					
P 215-N, 216-E, 217-S, 218-W, 219-soils						
					Midwest F	Region - Version 2

Profile Desc Depth	ription: (Describe to Matrix	o the depti		nent the ox Featur		r or con	firm the absence of ind	icators.)
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture	Remarks
0-3	10YR 4/2	100					sicllo	
3-9	10YR 3/2	90	10YR 3/4	10	С	М	sicl	
9-16	10YR 4/1	95	10YR 3/4	5	С	pl	sicl	
0.10				<u> </u>	<u> </u>	<u>Pi</u>		
				·				
		•		·	·		·	
*Turnet C=Ce	ncentration, D=Deple	otion DM-			d Sand (	raina	*1 agetion: 1	DI-Doro Lining M-Metrix
Hydric Soil I			Reduced Matrix, Ma	5-IVIASKe	u sanu e	fains.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils*:
Histosol			Sandy Gle	eved Mat	rix (S4)			Prairie Redox (A16)
	ipedon (A2)		Sandy Re	•	. ,			Surface (S7)
Black His			Stripped N	` '				anganese Masses (F12)
Hydroger	n Sulfide (A4)		Loamy Mu	ucky Mine	eral (F1)		Very S	hallow Dark Surface (F22)
Stratified	Layers (A5)		Loamy Gl	eyed Mat	trix (F2)		Other (	(Explain in Remarks)
2 cm Mu	ck (A10)		Depleted	Matrix (F	3)			
Depleted	Below Dark Surface	e (A11)	x Redox Da		• •			
	rk Surface (A12)		Depleted		( )			of hydrophytic vegetation and
	ucky Mineral (S1)		Redox De	pression	s (F8)			d hydrology must be present,
	cky Peat or Peat (S3						unless	disturbed or problematic.
	ayer (if observed):							
Type:	(here)						Hydric Soil Present?	
Depth (in							Hydric Soli Present?	Yes <u>x</u> No
Remarks:	oast erosion/sedimer	tation with	uppor lovor					
evidence of p	ast erosion/sedimer		upper layer					
HYDROLO	GY							
	rology Indicators:							
	ators (minimum of o	ne is requir			()			Indicators (minimum of two required)
x Surface \			Water-Sta		. ,			e Soil Cracks (B6)
x Saturatio	ter Table (A2)		Aquatic Fa		ge Patterns (B10) ason Water Table (C2)			
	arks (B1)		Hydrogen			\		sh Burrows (C8)
	t Deposits (B2)		Oxidized I		```			tion Visible on Aerial Imagery (C9)
	osits (B3)		Presence			•		d or Stressed Plants (D1)
· · ·	t or Crust (B4)		Recent Irc		`	,		orphic Position (D2)
	osits (B5)		Thin Much				· · ·	eutral Test (D5)
Inundatio	on Visible on Aerial Ir	magery (B7	) Gauge or	Well Dat	a (D9)			
Sparsely	Vegetated Concave	Surface (B	8) Other (Ex	plain in F	Remarks)			
Field Observ	vations:							
Surface Wate	er Present?	Yes	x No	Depth (i	inches): (	0-3		
Water Table	Present?	Yes	x No	Depth (i	inches):	5		
Saturation Pr	resent?	Yes	x No	Depth (i	inches): (	0	Wetland Hydrology P	resent? Yes <u>x</u> No
(includes cap								
Describe Red	corded Data (stream	gauge, mo	nitoring well, aerial	photos, p	previous i	nspectio	ons), if available:	
Remarks:								

Project/Site: West Moulton Station / W01		City/Co	ounty: Auglaize	Sampling Date: 12/23/201			
Applicant/Owner: AEP	plicant/Owner: AEP				Sampling Point: upl-bl-20191223-		
nvestigator(s): BL		Section	n, Township, R	ange: S1, 6S, 4E			
Landform (hillside, terrace, etc.): plains			Local relief	(concave, convex, none):	convex		
Slope (%): 2 Lat: 40.55236		Long: -	84.33983	•	Datum: WGS84		
Soil Map Unit Name: Gwe1B1 - Glynwood silt loam, e	nd moraine. 2 to			NWI classi	fication: N/A		
Are climatic / hydrologic condidions on the site typical f			Yes x	No (If no, explai			
Are Vegetation, Soil, or Hydrology	-				nt? Yes No x		
Are Vegetation , Soil , or Hydrology				xplain any answers in Rem			
SUMMARY OF FINDINGS - Attach site map							
Hydrophytic Vegetation Present? Yes	No x	ls the	Sampled Area				
Hydric Soil Present? Yes	No x		a Wetland?	Yes	No <u>x</u>		
Wetland Hydrology Present? Yes	No x						
Remarks:							
some snow cover present; point out about 10 ft north	of wetland boun	dary in maintai	ned grass law	n mowed shore; past filling	J/grading, gravel in soils		
VEGETATION - Use scientific names of pla	ints.						
Tree Stratum (Plot size: 30' radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	sheet:		
1. <u>n/a</u>				Number of Dominant Sp	pecies That		
2				Are OBL, FACW, or FA	.C: 0 (A)		
3.				Total Number of Domina	•		
4 5				Across All Strata:	<u>3</u> (B)		
	0	=Total Cover		Percent of Dominant Sp Are OBL, FACW, or FA			
Sapling/Shrub Stratum (Plot size: 15' radius	)			,, o, o			
1. <i>n/a</i>				Prevalence Index work	ksheet:		
2.				Total % Cover of:	Multiply by:		
3.				OBL species (	0 x 1 = 0		
4					0 x 2 = 0		
5					0   x 3 = 0		
	0	=Total Cover			$300 \times 4 = 360$		
<u>Herb Stratum</u> (Plot size: 5' radius )	20		FACU		0 x 5 = 0		
<ol> <li>Schedonorus arundinaceus</li> <li>Poa sp.</li> </ol>	<u> </u>	yes yes	FACU FACU	Column Totals: 9 Prevalence Index = B/A	$A = (A) = \frac{360}{4.00}$ (B)		
3. Festuca sp.	40	yes	FACU	Flevalence index - D/A	- 4.00		
4.		<u>}00</u>	17.00	Hydrophytic Vegetatio	n Indicators:		
5.					lydrophytic Vegetation		
6.				2 - Dominance Test	· · · · · · · · · · · · · · · · · · ·		
7.				3 - Prevalence Inde	x is ≤3.0*		
8.	_			4 - Morphological A	daptations* (Provide supportine		
9.				data ir	n Remarks or on a separate sh		
10					ohytic Vegetation* (Explain)		
Woody Vine Stratum (Plot size: 30' radius	_))	=Total Cover		*Indicators of hydric soil present, unless disturbe	l and wetland hydrology must b ed or problematic.		
1. <u>n/a</u>				Hydrophytic			
2.	0	=Total Cover		Vegetation Yes Present?	No		
Remarks: (Include photo numbers here or on a separa	ate sheet.)						
P 221-N, 222-E, 223-S, 224-W, 225-soils							
					Midwest Region - Version		

		o the depth n				or con	firm the absence of ir	dicators.)		
Depth	Matrix			lox Featur			- ·		<u> </u>	
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture		Remarks	
0-5	10YR 4/3	100					sicllo			
5-9	10YR 3/2	100					sicl	gravelly		
9+								gravel fill		
		·								
		·								
		·								
******			dere al Manteire M	<u> </u>			*1 4	DI Dens Linin		
Hydric Soil I	ncentration, D=Deple			13-IVIASKe	u Sanu G	rains.		: PL=Pore Linir for Problemati	-	*.
Histosol			Sandy G	leyed Mati	riv (S4)			t Prairie Redox	2	•
	ipedon (A2)			edox (S5)	IX (04)			Surface (S7)	(//10)	
Black His				Matrix (S6	5)			Vanganese Ma	sses (F12)	
I ——	n Sulfide (A4)			lucky Mine	,			Shallow Dark S		
<u> </u>	Layers (A5)			leyed Mat	• •			r (Explain in Re		
2 cm Mu	• • •		-	Matrix (F	• •			(	,	
	Below Dark Surface	e (A11)		ark Surfac	,					
Thick Da	rk Surface (A12)	. ,	Depleted	Dark Sur	face (F7)		*Indicator	s of hydrophytic	c vegetation a	nd
Sandy M	ucky Mineral (S1)		Redox D	epression	s (F8)		wetla	nd hydrology m	nust be presen	ıt,
5 cm Mu	cky Peat or Peat (S3	)					unles	s disturbed or	problematic.	
Restrictive L	ayer (if observed):									
Туре:	gravel		_							
Depth (in	ches): 9		_				Hydric Soil Present	?	Yes	No <u>x</u>
Remarks:										
no redox feat	ures present									
HYDROLO	GY									
	rology Indicators:									
	ators (minimum of o	ne is reauired:	check all that a	(vlage			Seconda	y Indicators (m	inimum of two	required)
	Water (A1)	•		ained Lea	ves (B9)			ice Soil Cracks		<u>,</u>
	ter Table (A2)		Aquatic	auna (B1	3)			age Patterns (E		
Saturatio	n (A3)		True Aqu	uatic Plant	s (B14)		Dry-S	Season Water T	able (C2)	
Water Ma	arks (B1)		Hydroge	n Sulfide C	Odor (C1)		Cray	fish Burrows (C	8)	
Sedimen	t Deposits (B2)		Oxidized	Rhizosph	eres on L	iving Ro	oots (C3) Satu	ration Visible or	n Aerial Image	ry (C9)
Drift Dep	osits (B3)		Presence	e of Reduc	ed Iron (	C4)	Stun	ed or Stressed	Plants (D1)	
Algal Ma	t or Crust (B4)		Recent I	ron Reduc	tion in Til	led Soil		norphic Positio	· · /	
Iron Depo	osits (B5)		Thin Mu	ck Surface	(C7)		FAC-	Neutral Test (D	05)	
	n Visible on Aerial Ir	0,0,0,0	Gauge o	r Well Dat	a (D9)					
Sparsely	Vegetated Concave	Surface (B8)	Other (E	xplain in R	emarks)					
Field Observ	vations:									
Surface Wate	er Present?	Yes	No x		nches): (					
Water Table		Yes	No x	• •	nches): <u>&gt;</u>					
Saturation Pr		Yes	No <u>x</u>	Depth (i	nches): <u>&gt;</u>	»9	Wetland Hydrology	Present?	Yes	No <u>x</u>
	(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Describe Rec	corded Data (stream	gauge, monito	oring well, aeria	i photos, p	revious ii	nspectio	ons), if available:			
Remarks:										

Project/Site: West Moulton Station / W02	City/Cou	inty: Auglaize	Sampling Date: 12/23/2019
Applicant/Owner: AEP		State: OH	Sampling Point: w-bl-20191223-02a
nvestigator(s): BL	Section,	Township, Range: S1, 6S, 4E	
Landform (hillside, terrace, etc.): hillslope		Local relief (concave, convex	k, none): convex
Slope (%): 2 Lat: 40.5529	Long: -8	34.34085	Datum: WGS84
Soil Map Unit Name: Gwe1B1 - Glynwood silt loam, end mora	aine, 2 to 6 percent slop	es N'	WI classification: N/A
Are climatic / hydrologic condidions on the site typical for this ti	ime of year?	Yes x No (If r	no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologysignil		Are "Normal Circumstance	s" present? Yes x No
Are Vegetation, Soil, or Hydrologynatur		(If needed, explain any answe	
SUMMARY OF FINDINGS - Attach site map show			
Hydrophytic Vegetation Present? Yes x No	Is the S	Sampled Area	
Hydric Soil Present? Yes x No			es <u>x</u> No
Wetland Hydrology Present? Yes x No			
Remarks:			
point in at highest elevation over drainage swale, uncertain whether the state of t	hy wetland conditions pe	ersist up here	
VEGETATION - Use scientific names of plants.	osolute Dominant	Indicator	
	Cover Species?		est worksheet:
1. <u>n/a</u>		Number of Dor	ninant Species That
2.		Are OBL, FAC	W, or FAC: (A)
3			of Dominant Species
4		Across All Stra	( ' /
5	0 =Total Cover	Percent of Dor Are OBL, FAC	ninant Species That W, or FAC: 100% (A/B)
Sapling/Shrub Stratum (Plot size: 15' radius )		Ale OBL, I AO	
1. Cornus alba	2 no	FACW Prevalence In	dex worksheet:
2.		Total % Cover	of: Multiply by:
3.		OBL species	0 x 1 = 0
4		FACW species	
5	-Tatal Oaur	FAC species	$0 \times 3 = 0$
Herb Stratum (Plot size: 5' radius )	2 =Total Cover	FACU species UPL species	$\begin{array}{ccc} 30 & x \ 4 = & 120 \\ \hline 0 & x \ 5 = & 0 \end{array}$
1. Phalaris arundinaceus	80 yes	FACW Column Totals	
2. Solidago canadensis	15 no	FACU Prevalence Inc	
3. Cirsium arvense	5 no	FACU	
4. Festuca rubra	10 no	FACU Hydrophytic V	egetation Indicators:
5		1 - Rapid 1	est for Hydrophytic Vegetation
6.		x 2 - Domina	ance Test is >50%
7			nce Index is ≤3.0*
8		4 - Morpho	logical Adaptations* (Provide supporting data in Remarks or on a separate sheet)
9		Problemat	c Hydrophytic Vegetation* (Explain)
	110 =Total Cover		ydric soil and wetland hydrology must be
Woody Vine Stratum (Plot size: 30' radius )			s disturbed or problematic.
1. <u>n/a</u>		Hydrophytic	Vee v Ne
2	0 =Total Cover	Vegetation Present?	Yes <u>x</u> No
		Flesents	
Remarks: (Include photo numbers here or on a separate shee	et.)		
P 248-N, 249-E, 250-S, 251-W, 252-soils			
			Midwest Region - Version 2.0

(Inches)         Color (molet)         %         Type:         Loc*         Texture         Remarks           9.6         10YR 4/3         100         10/YR 4/4         15         o         m         siclo           9.6         10YR 4/3         100         10YR 4/4         15         o         m         sicl	Depth	Matrix		Redo	ox Feature	es			
6-15       10YR 4/2       80       10YR 4/4       15       c       m       sid	(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture	Remarks
10YR 4/8       5       c       pi         "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       "Location: PL=Pore Lining, M=Matrix."         "Hydro Soll Indicators:       Indicators for Problematic Hydro Solls":         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Torn-Manganee Masses (F12)         Hydro Soll Indicators:       Loamy Klocky Mutrix (S6)       Torn-Manganee Masses (F12)         Hydro Board Mutrik (Matrix (F2)       Other (Explain in Remarks)       Coast Prain's Redox (A16)         Stratified Layers (A5)       Loamy Klocky Mutrix (F2)       Other (Explain in Remarks)       Coast Prain's Redox (A17)         Sandy Micky, Mineral (S1)       Depleted Bedw Dark Surface (A12)       Depleted Dark Surface (F7)       "Indicators of hydrophylic vegetation and welland hydrology must be present, unless disturbed or problematic."         Restrictive Layer (If Observed):       Type:       Proc.       No_         Surface VBAR (A1)       Water-Stained Lawes (B9)       Surface Soll Cracks (B0)       Surface Soll Cracks (B0)         Hydrology Indicators:       Presence' Reduced Inix (C4)       Dory-Season Water Table (C2)       PrainapP Patterns (D1)         Surface VBAR (A1)       Water-Stained Lawes (B9)       Surface Soll Cracks (B0)       Surface VBAR (C1)       Dory-Season Water Ta	0-6	10YR 4/3	100					sicllo	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix, MS=Masked Sand Grains.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histics (A1)       Sandy Redox (S5)         Biack Histic (A3)       Stripped Matrix (S4)         Stratified Layers (A5)       Loarny Gleyd Matrix (S6)         2 orn Muck (A10)       x Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Dark Surface (F7)         Type:       Thick Dark Surface (A12)         Type:       Depleted Dark Surface (A12)         Type:       Depleted Dark Surface (A12)         Type:       Depleted Dark Surface (A12)         Type:       Type:         Depleted Index (Matrix (A3)       unless disturbed or problematic.         Restrictive Layer (If Observed):       Yes	6-15	10YR 4/2	80	10YR 4/4	15	с	m	sicl	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix, MS=Masked Sand Grains.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histics (A1)       Sandy Redox (S5)         Biack Histic (A3)       Stripped Matrix (S4)         Stratified Layers (A5)       Loarny Gleyd Matrix (S6)         2 orn Muck (A10)       x Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Dark Surface (F7)         Type:       Thick Dark Surface (A12)         Type:       Depleted Dark Surface (A12)         Type:       Depleted Dark Surface (A12)         Type:       Depleted Dark Surface (A12)         Type:       Type:         Depleted Index (Matrix (A3)       unless disturbed or problematic.         Restrictive Layer (If Observed):       Yes				10YR 4/6	5	с	pl		
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls*:         Histoc Eppedon (A2)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Black Histic (A3)       Stripped Matrix (S6)       Dark Surface (S7)         Hydrogen Suffde (A4)       Loarny Mucky Mineral (F1)       Very Shallow Dark Surface (F2)         2 or Muck (A10)       x       Depleted Matrix (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x       Depleted Matrix (F3)       Depleted Matrix (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x       Depleted Matrix (F3)       Redox Dark Surface (F7)       *indicators indiputive vegetation and wetian dhydrology must be present, unless disturbed or problematic.         S or Muck (A10)       Redox Depressions (F8)       wetiand hydrology functive present, unless disturbed or problematic.         Remarks:       several soil pits dug at upper elevation of wetland, all wiredox features in depleted soils present       Secondary Indicators (minimum of two requires Surface S01)         Surface Valuer (A1)       Water-Stained Leaves (B9)       Surface S010 Cracks (B6)       Surface S010 Cracks (B6)         Hybrology Indicators       True Aquatic Plants (B14)       Dry-Season Water Table (C2)       Craftish Burrows (C8)         Settiment Deposits (B2)       X Oxideed Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)		·					<u> </u>		
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histoc Epipedon (A2)       Sandy Redox (S5)         Black Histic (A3)       Stripped Matrix (S4)         Hydrogen Suffde (A4)       Loarny Mucky Mineral (F1)         Yeny Shallow Dark Surface (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Dark Surface (F7)         'Indicators (F8)       weltand hydrology must be present, or not sequired; check all fhat apply)         Sardife Hydric Soil Present?       Yes _ x         Pipe:       Depleted Bark Surface (A12)         Depleted Bark Surface (A12)       Redox Dark Surface (F7)         *indicators (minimum of one is required; check all fhat apply)       Secondary Indicators (minimum of two required; Saurface Soil Dresent?         Yes		·							
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls*:         Histoc Eppedon (A2)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Black Histic (A3)       Stripped Matrix (S6)       Dark Surface (S7)         Hydrogen Suffde (A4)       Loarny Mucky Mineral (F1)       Very Shallow Dark Surface (F2)         2 or Muck (A10)       x       Depleted Matrix (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x       Depleted Matrix (F3)       Depleted Matrix (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x       Depleted Matrix (F3)       Redox Dark Surface (F7)       *indicators indiputive vegetation and wetian dhydrology must be present, unless disturbed or problematic.         S or Muck (A10)       Redox Depressions (F8)       wetiand hydrology functive present, unless disturbed or problematic.         Remarks:       several soil pits dug at upper elevation of wetland, all wiredox features in depleted soils present       Secondary Indicators (minimum of two requires Surface S01)         Surface Valuer (A1)       Water-Stained Leaves (B9)       Surface S010 Cracks (B6)       Surface S010 Cracks (B6)         Hybrology Indicators       True Aquatic Plants (B14)       Dry-Season Water Table (C2)       Craftish Burrows (C8)         Settiment Deposits (B2)       X Oxideed Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)		·			·				
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls*:         Histos (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histos (A1)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S4)       Dark Surface (S7)         Hydrogen Sulfde (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (F22)         Stratified Layers (A5)       Dark Mucky Mineral (F1)       Very Shallow Dark Surface (F22)         Depieted Below Dark Surface (A12)       Depleted Dark Surface (F7)       "indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Depleted Dark Surface (F7)       "indicators: (minimum of one is required; check all that apply)         Surface Water (A1)       Wetland Hydrology Indicators:       Hydric Soil Present?       Yes _ x No_         Perimary Indicators:       Primary Indicators (B6)       Surface Soil Cracks (B6)       Surface Soil Cracks (B6)         Surface Water (A1)       Wetland Hydrology Indicators:       Dypesent Garace Soil Cracks (G6)       Surface Soil Cracks (G6)         Surface Water (A1)       Wetland Event S(B1)       Surface Crack (B1)       Surface Crack (B6)       Surface (C1)         Surface Water (A1)       Wetland Hydrology Indicators:       Dypesent Soil Cracks (G6) <td></td> <td>·</td> <td>·</td> <td></td> <td>·</td> <td></td> <td></td> <td></td> <td></td>		·	·		·				
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histoc Epipedon (A2)       Sandy Redox (S5)         Black Histic (A3)       Stripped Matrix (S4)         Hydrogen Suffde (A4)       Loarny Mucky Mineral (F1)         Yeny Shallow Dark Surface (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Dark Surface (F7)         'Indicators (F8)       weltand hydrology must be present, or not sequired; check all fhat apply)         Sardife Hydric Soil Present?       Yes _ x         Pipe:       Depleted Bark Surface (A12)         Depleted Bark Surface (A12)       Redox Dark Surface (F7)         *indicators (minimum of one is required; check all fhat apply)       Secondary Indicators (minimum of two required; Saurface Soil Dresent?         Yes			·						
Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Kitic Gai         Black Histic (A3)       Stripped Matrix (S6)       Dark Surface (F2)         Hydrogen Sulfde (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (F2)         Stratief Layers (A5)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         2 cm Muck (A10)       X Depieted Matrix (F3)       Depieted Matrix (F3)         Depieted Balow Dark Surface (A11)       Redox Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S cm Mucky Peat or Peat (S3)       meass disturbed or problematic.       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (Ir Observed):       Type:       meass disturbed or problematic.       meass disturbed or problematic.         Beark Hiver (A1)       Water Stalled Layers (B9)       Scintace S(B6)       Surface Soil Cracks (B6)         Surface Water (A1)       Water Gauna (B13)       Drainage Patterns (B10)       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Planta (B13)       Drainage Patterns (B10)       Drainage Patterns (B10)         Sediment Deposits (B2)       Oxid/dead Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9) <td></td> <td></td> <td>etion, RM=</td> <td>Reduced Matrix, MS</td> <td>S=Maske</td> <td>d Sand G</td> <td>rains.</td> <td></td> <td>*</td>			etion, RM=	Reduced Matrix, MS	S=Maske	d Sand G	rains.		*
Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Immode Massee (F12)         Hydridgen Sulfide (A4)       Loarmy Mucky Mineral (F1)       Very Shallow Dark Surface (F22)         Stratified Layers (A5)       Loarmy Gleyed Matrix (F3)       Other (Explain in Remarks)         2 cm Muck (A10)       x Depleted Dark Surface (F6)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       wetland Hydrology must be present, unless disturbed or problematic.         Restrictive Layer (If observed):       Type:       Depleted Dark Surface (F1)       Matrix (F3)         Surface Water (A1)       Wetland Hydrology must be present, unless disturbed or problematic.       No				Querrate Ola		(04)			
Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Sulfide (A4)       Loamy Micky Mineral (F1)       Uvery Shallow Dark Surface (F22)         2 cm Muck (A10)       X       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)       Thick Dark Surface (A12)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Redox Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes _x No_         Remarks:       several soil pits dug at upper elevation of wetland, all wiredox features in depleted soils present       Surface Soil Cracks (B6)         HYDROLOGY       Wetland Hydrology Indicators:       Surface Soil Cracks (B6)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Flants (B1)       Dy-Sesson Water Table (C2)       Craylatic Plants (B1)       Dy-Sesson Water Table (C2)         Sediment Deposits (B3)       Presence of Reduced fon (C4)       Sturation Visible on Aerial Imagery (C9)       Sturation Visible on Aerial Imagery (C9)         Sediment Deposits (B3)       Presence of Reduced fon (C4)       Sturat					•	ix (S4)			, ,
Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (F22)         Stratified Layers (A5)       Loamy Gieyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       X Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Dark Surface (F7)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if Observed):       Type:       Depleted Dark Surface (A12)       No         Remarks:       several soil pits dug at upper elevation of wetland, all w/redox features in depleted soils present       Hydric Soil Present?       Yesx No         Remarks:       Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)       Surface Soil Cracks (B6)         HYDROLOGY       Matter Table (A2)       Aquatic Fauna (B13)       X Drainage Patterns (B10)       Dry-Season Water Table (C2)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (C9)         Secondary Indicators:       Sufface Water (In Kers)       Saturation Visible on Aerial Imagery (C9)       Saturation Visible on Aerial Imagery (C9)         Saturation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Saturation Visible on Aerial Imagery (C9)         Sufface Water Present?					, ,				
Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 or Muck (A10)       x       Depieted Matrix (F3)         Depieted Blow Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depieted Dark Surface (F7)         'Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S of Mucky Peat or Peat (S3)         Restrictive Layer (If observed):         Type:         Type:         Pepteted Park Surface (A11)         Wetland Hydrology Indicators:         Brimary Indicators (minimum of one is required; check all that apply)         Surface Water (A11)       Water-Stained Leaves (B9)         Surface Vater (A11)       Water-Stained Leaves (B9)         Surface Vater (A11)       Water-Stained Leaves (B9)         Surface Rel (B12)       X Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)       Strated or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Solis (C6)       Caemorphic Positin (D2)         Infin Auex Surface (B8)       Other (Explain in Remarks)       Grayfish Burrows (C8)         Saturation Visible									,
2 cm Muck (A10)       x       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Dark Surface (F7)         's om Mucky Peat or Peat (S3)       Redox Depressions (F8)         Restrictive Layer (if observed):       'unless disturbed or problematic.         Type:				-	-	• •			. ,
Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         some Mucky Peat or Peat (S3)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:         Type:       Depth (inches):         Beth (inches):       Hydric Soil Present?       Yes _ x _ No_         Remarks:       several soil pits dug at upper elevation of wetland, all w/redox features in depleted soils present         HYDROLOGY       Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two requires Saturation (A3)         Saturation (A3)       True Aquatic Plants (B13)       x Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         Wet Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B3)       Presence of Reduced Iron (C4)       Sturtation Visible on Aerial Imagery (C9)         Surface Water Yes       No       X Depth (inches): 0       X FAC-Neutral Test (D5)         Into Deposits (B5)       Tru Muck Surface (C7)       X FAC-Neutral Test (D5)         Intro Nuck Surface (C1) <t< td=""><td></td><td>• • •</td><td></td><td></td><td>•</td><td>. ,</td><td></td><td></td><td></td></t<>		• • •			•	. ,			
Thick Dark Surface (A12)       Depleted Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes_x       No_         Remarks:       several soil pits dug at upper elevation of wetland, all w/redox features in depleted soils present       Hydric Soil Present?       Yes_x       No_         HYDROLOGY       Wetland Hydrology Indicators:       Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two requires Surface Soil Cracks (B6)         Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Flauna (B13)       x       Drainage Patterns (B10)       Dry-Season Water Table (C2)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)       Cracks (B6)       Sutrace Soil Cracks (B6)       Saturation Visible on Aerial Imagery (C9)         Staturation CB3)       Presence of Reduced Iron (C4)       Staturation Visible on Aerial Imagery (C9)       Saturation Visible on Aerial Imagery (C9)       Saturation C10       Saturation C10       Saturation C2       Saturation Visible on Aerial Imagery (B7)       Gauge or Well Data (D		( )	(A11)			,			
Sandy Mucky Mineral (S1)       Redox Depressions (F8)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:	'		(,)			` '		*Indicators	s of hydrophytic vegetation and
						. ,			
Type:		• • • •	)						, ,
Type:	Restrictive	Layer (if observed):							
Remarks:         several soil pits dug at upper elevation of wetland, all w/redox features in depleted soils present         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       x       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)       Crayfish Burrows (C8)         Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): <u>&gt; 15</u> Water Table Present?       Yes       No       x       Depth (inches): > 15       Wetland Hydrology Present?       Yes       x       No		<b>,</b>							
several soil pits dug at upper elevation of wetland, all w/redox features in depleted soils present         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required; fright water Table (A2)									
Wetland Hydrology Indicators:       Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required; for each of the second for each o	Remarks:	,	ation of we	etland, all w/redox fe	atures in	depleted	soils pr	-	? Yes <u>x</u> No
Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required; Secondary Indicators (minimum of two required; Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       x       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         Water Marks (B1)       Hydrogen Sulfde Odor (C1)       Crafish Burrows (C8)         Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunde or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Inon Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         Surface Water Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No	Remarks:	,	ation of we	etland, all w/redox fe	atures in	depleted	soils pr	-	? Yes <u>x</u> No
Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required; Secondary Indicators (minimum of two required; Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       x       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Dift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         Surface Water Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x	Remarks: several soil	pits dug at upper elev	ation of we	etland, all w/redox fe	eatures in	depleted	soils pr	-	? Yes <u>x</u> No
High Water Table (A2)       Aquatic Fauna (B13)       x       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): 215         Water Table Present?       Yes       No       x       Depth (inches): 215       Wetland Hydrology Present?       Yes       No         Gincludes capillary fringe)       Depth (inches): 215       Yes       No       X       Depth (inches): 215         Remarks:       Remarks:       Kettand Hydrology Present?       Yes       X       No	Remarks: several soil	pits dug at upper elev	ation of we	etland, all w/redox fe	eatures in	depleted	soils pr	-	? Yes <u>x</u> No
Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): 0         Water Table Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       No         Gincludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil HYDROLO Wetland Hyo	pits dug at upper elev DGY drology Indicators:				depleted	soils pr	esent	
Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): >15         Saturation Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:       Feedoded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks: several soil HYDROLC Wetland Hyo Primary Indi	pits dug at upper elev DGY drology Indicators: cators (minimum of or		red; check all that ap	ylac		soils pr	esent <u>Secondar</u>	y Indicators (minimum of two required)
Sediment Deposits (B2)       x       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): >15         Saturation Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil HYDROLC Wetland Hy <u>Primary Indir</u> Surface High Wa	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2)		red; check all that an Water-Sta	oply) ained Lea	ves (B9)	soils pr	esent <u>Secondar</u> Surfa	y Indicators (minimum of two required) ce Soil Cracks (B6)
Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       FAC-Neutral Test (D5)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)       Vestar Depth (inches): 0         Water Table Present?       Yes       No       x         Vater Table Present?       Yes       No       x         No       x       Depth (inches): >15       Vetland Hydrology Present?       Yes       x         Vincludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil HYDROLC Wetland Hy <u>Primary Indir</u> Surface High Wa	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2)		red; check all that an Water-Sta Aquatic Fa	<u>oply)</u> ained Lea auna (B13	ves (B9) 3)	soils pr	esent <u>Secondar</u> Surfa <u>x</u> Drain:	<u>y Indicators (minimum of two required)</u> ce Soil Cracks (B6) age Patterns (B10)
Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       x       FAC-Neutral Test (D5)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)       X       Feld Observations:         Surface Water Present?       Yes       No       x       Depth (inches): >15         Water Table Present?       Yes       No       x       Depth (inches): >15         Saturation Present?       Yes       No       x       Depth (inches): >15         Wetland Hydrology Present?       Yes       x       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       X         Remarks:       Remarks:       X       X       X	Remarks: several soil HYDROL( Wetland Hyt Primary Indi Surface High Wa Saturatio	pits dug at upper elev DGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3)		red; check all that ap Water-Sta Aquatic Fa	oply) ained Lea auna (B13	ves (B9) 3) s (B14)		esent <u>Secondar</u> Surfa X Drain: Dry-S	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
Iron Deposits (B5)       Thin Muck Surface (C7)       x       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): 0         Water Table Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       No         Saturation Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         Cincludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil HYDROL( Wetland Hyc Primary Indi Surface High Wa Saturati Water M	pits dug at upper elev DGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1)		red; check all that an Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F	oply) ined Lea auna (B1 atic Plants Sulfide C Rhizospho	ves (B9) 3) s (B14) )dor (C1) eres on L	iving Ra	esent <u>Secondar</u> Surfa <u>x</u> Drain: Dry-S Crayfi bots (C3) Satura	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes         Surface Water Present?       Yes       No       x         Water Table Present?       Yes       No       x         Saturation Present?       Yes       No       x         Includes capillary fringe)       Depth (inches): >15       Wetland Hydrology Present?       Yes       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:       Explain the stream gauge of the stream gauge	Remarks: several soil HYDROL( Wetland Hyc Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F	oply) ained Lear auna (B13 atic Plants Sulfide C Rhizosph of Reduc	ves (B9) 3) s (B14) Odor (C1) eres on L ed Iron (f	iving Rc	esent <u>Secondar</u> Surfar <u>x</u> Drain; Dry-S Crayfi Sturter Sturter	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       x       Depth (inches): 0         Water Table Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         Saturation Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil HYDROLC Wetland Hyc Primary India Surface High Wa Saturatie Water M Sedimer Drift Dep Algal Ma	pits dug at upper elev DGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		red; check all that an Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized F Presence Recent Iro	oply) ained Lear auna (B13 atic Plants Sulfide C Rhizospho of Reduc on Reduc	ves (B9) 3) s (B14) Odor (C1) eres on L eed Iron (i tion in Til	iving Rc	esent <u>Secondar</u> Surfai <u>X</u> Drain; Dry-S Crayfi pots (C3) Satur; Stunte s (C6) Geom	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Field Observations:         Surface Water Present?       Yes       No       x       Depth (inches): 0         Water Table Present?       Yes       No       x       Depth (inches): >15         Saturation Present?       Yes       No       x       Depth (inches): >15         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:         Remarks:	Remarks: several soil HYDROLC Wetland Hyc Primary India Saturatio Water M Saturatio Water M Sedimen Drift Deg Algal Ma Iron Dep	pits dug at upper elev DGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne is requi	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Iro Thin Muck	oply) ained Lea auna (B13 attic Plants Sulfide C Rhizospho of Reduc on Reduct ≼ Surface	ves (B9) 3) s (B14) Odor (C1) eres on L ed Iron (i tion in Til (C7)	iving Rc	esent <u>Secondar</u> Surfai <u>X</u> Drain; Dry-S Crayfi pots (C3) Satur; Stunte s (C6) Geom	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Surface Water Present?       Yes       No       x       Depth (inches): 0         Water Table Present?       Yes       No       x       Depth (inches): >15         Saturation Present?       Yes       No       x       Depth (inches): >15         Wetland Hydrology Present?       Yes       x       No_         (includes capillary fringe)       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No_         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:       Remarks:	Remarks: several soil HYDROLC Wetland Hyc Primary Indie Surface High Wa Saturatie Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir	ne is requi	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized F Presence Recent Iro Thin Muck 7) Gauge or	oply) ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduc on Reduci < Surface Well Data	ves (B9) 3) s (B14) Odor (C1) eres on L eed Iron (i tion in Til (C7) a (D9)	iving Rc	esent <u>Secondar</u> Surfain <u>X</u> Drain; Dry-S Crayfi pots (C3) Satur; Stunte s (C6) Geom	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Water Table Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         Saturation Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil Wetland Hyc Primary Indii Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir y Vegetated Concave	ne is requi	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized F Presence Recent Iro Thin Muck 7) Gauge or	oply) ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduc on Reduci < Surface Well Data	ves (B9) 3) s (B14) Odor (C1) eres on L eed Iron (i tion in Til (C7) a (D9)	iving Rc	esent <u>Secondar</u> Surfain <u>X</u> Drain; Dry-S Crayfi pots (C3) Satur; Stunte s (C6) Geom	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Saturation Present?       Yes       No       x       Depth (inches): >15       Wetland Hydrology Present?       Yes       x       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:	Remarks: several soil HYDROLO Wetland Hyc Primary Indie Surface High Wa Saturatie Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In y Vegetated Concave vations:	ne is requi nagery (B7 Surface (E	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Irc Thin Muck 7) Gauge or B8) Other (Exp	oply) ained Lea auna (B1; atic Plants Sulfide C Rhizosph of Reduc on Reduc sourface Well Data plain in R	ves (B9) 3) s (B14) Ddor (C1) eres on L eed Iron (( tion in Til (C7) a (D9) emarks)	iving Rc C4) led Soils	esent <u>Secondar</u> Surfain <u>X</u> Drain; Dry-S Crayfi pots (C3) Satur; Stunte s (C6) Geom	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Remarks: several soil HYDROLO Wetland Hyc Primary India Surface High Wa Saturatia Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Stiface Wat	pits dug at upper elev DGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In y Vegetated Concave vations: ter Present?	ne is requi magery (B7 Surface (B Yes_	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Irc Thin Muck 7) Gauge or B8) Other (Exp	oply) ained Lear auna (B1; atic Plants Sulfide C Rhizosph of Reduc on Reduc sourface Well Data plain in R	ves (B9) 3) s (B14) Odor (C1) eres on L eed Iron (( tion in Til (C7) a (D9) emarks) ches): <u>(</u>	iving Rc C4) led Soils	esent <u>Secondar</u> Surfain <u>X</u> Drain; Dry-S Crayfi pots (C3) Satur; Stunte s (C6) Geom	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Remarks: several soil HYDROLO Wetland Hyc Primary India Surface High Wa Saturatia Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Water Table	pits dug at upper elev DGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir y Vegetated Concave vations: ter Present?	ne is requi magery (B7 Surface (F Yes Yes	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 38) Other (Exp No x	oply) ained Lear auna (B1; atic Plants Sulfide C Rhizosph of Reduc Sulface Well Data plain in R Depth (ii Depth (ii	ves (B9) 3) s (B14) Odor (C1) eres on L ed Iron (( tion in Til (C7) a (D9) emarks) nches): <u>c</u>	iving Rc C4) led Soils	esent Secondar Surfa x Drain: Dry-S Crayfi Stunte s (C6) x FAC-1	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Remarks:	Remarks: several soil HYDROLO Wetland Hyc Primary Indii Surface High Wa Saturatii Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wal Water Table Saturation P	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir y Vegetated Concave vations: ter Present? Present?	ne is requi magery (B7 Surface (F Yes Yes	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 38) Other (Exp No x	oply) ained Lear auna (B1; atic Plants Sulfide C Rhizosph of Reduc Sulface Well Data plain in R Depth (ii Depth (ii	ves (B9) 3) s (B14) Odor (C1) eres on L ed Iron (( tion in Til (C7) a (D9) emarks) nches): <u>c</u>	iving Rc C4) led Soils	esent Secondar Surfa x Drain: Dry-S Crayfi Stunte s (C6) x FAC-1	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
	Remarks: several soil HYDROLO Wetland Hyc Primary Indii Surface High Wa Saturatii Water M Sedimer Drift Deg Algal Ma Iron Deg Inundati Sparsely Field Obser Surface Wal Water Table Saturation P (includes ca	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir y Vegetated Concave vations: ter Present? Present? pillary fringe)	nagery (B7 Surface (I Yes Yes Yes	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Irc Thin Muck 7) Gauge or B8) Other (Exp No x No x No x	oply) ained Lear auna (B13 atic Plants Sulfide C Rhizosphe of Reduc on Reduc on Reduc Surface Well Data plain in R Depth (ii Depth (ii	ves (B9) 3) s (B14) odor (C1) eres on L eed Iron (( tion in Til (C7) a (D9) emarks) nches): <u>&gt;</u> nches): <u>&gt;</u>	iving Rc C4) led Soils	esent Secondar Surfac x Drain: Dry-S Crayfi Stunte s (C6) X FAC-I Wetland Hydrology	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
no evidence of hydrology ndicators at this location except for oxidized rhizospheres	Remarks: several soil HYDROLO Wetland Hyc Primary Indii Surface High Wa Saturatii Water M Sedimer Drift Deg Algal Ma Iron Deg Inundati Sparsely Field Obser Surface Wal Water Table Saturation P (includes ca	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir y Vegetated Concave vations: ter Present? Present? pillary fringe)	nagery (B7 Surface (I Yes Yes Yes	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Irc Thin Muck 7) Gauge or B8) Other (Exp No x No x No x	oply) ained Lear auna (B13 atic Plants Sulfide C Rhizosphe of Reduc on Reduc on Reduc Surface Well Data plain in R Depth (ii Depth (ii	ves (B9) 3) s (B14) odor (C1) eres on L eed Iron (( tion in Til (C7) a (D9) emarks) nches): <u>&gt;</u> nches): <u>&gt;</u>	iving Rc C4) led Soils	esent Secondar Surfac x Drain: Dry-S Crayfi Stunte s (C6) X FAC-I Wetland Hydrology	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
	Remarks: several soil Primary Indie Primary Indie Surface High Wa Saturatie Water M Sedimen Drift Deg Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wate Vater Table Saturation P (includes ca Describe Re	pits dug at upper elev DGY drology Indicators: <u>cators (minimum of or</u> Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ir y Vegetated Concave vations: ter Present? Present? pillary fringe)	nagery (B7 Surface (I Yes Yes Yes	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Irc Thin Muck 7) Gauge or B8) Other (Exp No x No x No x	oply) ained Lear auna (B13 atic Plants Sulfide C Rhizosphe of Reduc on Reduc on Reduc Surface Well Data plain in R Depth (ii Depth (ii	ves (B9) 3) s (B14) odor (C1) eres on L eed Iron (( tion in Til (C7) a (D9) emarks) nches): <u>&gt;</u> nches): <u>&gt;</u>	iving Rc C4) led Soils	esent Secondar Surfac x Drain: Dry-S Crayfi Stunte s (C6) X FAC-I Wetland Hydrology	y Indicators (minimum of two required) ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)

Project/Site: West Moulton Station / W02		City/Co	unty: Auglaize	e Sam	pling Date: 12/23/2019
Applicant/Owner: AEP				State: OH Samp	oling Point: w-bl-20191223-02b
Investigator(s): BL		Section	, Township, R	ange: S1, 6S, 4E	
Landform (hillside, terrace, etc.): hillslope				(concave, convex, none): convex	
Slope (%): 2 Lat: 40.55336		Long: 4	84.34057	Datum: V	NGS8/
Soil Map Unit Name: Gwe1B1 - Glynwood silt loam, end				NWI classification: N	
Are climatic / hydrologic condidions on the site typical for			Yes <u>x</u>		
Are Vegetation, Soil, or Hydrology			Are "Norr	mal Circumstances" present? Yes	x No
Are Vegetation, Soil, or Hydrology	naturally prob	ematic?	(If needed, early a second sec	xplain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map sl	nowing sa	mpling point	t locations,	, transects, important feature	es, etc.
	lo		Sampled Area		
	lo lo	within	a Wetland?	Yes <u>x</u> No	
, , ,	IU				
Remarks: small scrub-shrub component of W02; appears to be spo	vile nilo aroa i	from coll towor	aradina/const	ruction	
small scrub-smub component of woz, appears to be spo	his plie alea		graung/const	lucion	
VECETATION Lies scientific names of plant					
VEGETATION - Use scientific names of plant	S. Absolute	Dominant	Indicator	Г	
Tree Stratum (Plot size: 30' radius )	% Cover	Species?	Status	Dominance Test worksheet:	
1. Fraxinus pennsylvanica	5	yes	FACW	Number of Dominant Species That	at
2.				Are OBL, FACW, or FAC:	<u> </u>
3				Total Number of Dominant Specie	es
4.				Across All Strata:	<u> </u>
5				Percent of Dominant Species That	
	5	=Total Cover		Are OBL, FACW, or FAC:	<u>83%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15' radius	)		510		
1. Rhamnus cathartica	15	yes	FAC	Prevalence Index worksheet:	A
Cornus sericia     Ulmus americana	20 10	yes	FAC		Aultiply by: 1 = 0
<ol> <li><u>Ulmus americana</u></li> <li>Lonicera morrowi</li> </ol>	5	yes no	FACW FACU	· · · ·	x = 0 x = 70
5.		110	1700	· · ·	3 = 105
	50	=Total Cover		· · · ·	4 = 60
Herb Stratum (Plot size: 5' radius )				· ·	5 = 0
1. Phalaris arundinaceus	5	no	FACW	Column Totals: 85 (A)	
2. Allium canadense	10	yes	FACU	Prevalence Index = B/A =	2.76
3. Agrimonia parviflora	15	yes	FACW	-	
4.				Hydrophytic Vegetation Indicate	ors:
5				1 - Rapid Test for Hydrophytic	c Vegetation
6				x 2 - Dominance Test is >50%	
7				<u>x</u> 3 - Prevalence Index is ≤3.0*	
8.				4 - Morphological Adaptations	
9					s or on a separate sheet)
10	30	=Total Cover		Problematic Hydrophytic Veg	· · · /
Woody Vine Stratum (Plot size: 30' radius	30	= I otal Cover		*Indicators of hydric soil and wetla present, unless disturbed or prob	
1. n/a	)				
2.				Hydrophytic Vegetation Yes <u>x</u> No	
	0	=Total Cover		Present?	
Pomarka: (Includo photo numbero horo or on o concrete	shoot )				
Remarks: (Include photo numbers here or on a separate P 254-N, 255-E, 256-S, 257-W, 258-soils	sileet.)				
,, ,					
				A	Nidwest Region - Version 2.0

SOIL
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Profile Des Depth	cription: (Describe to Matrix	o the depti		ent the i x Featur		or con	firm the absence of indic	cators.)
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture	Remarks
0-11	10YR 4/1	90	10YR 4/3	10	с	m	sicllo	
11-14	10YR 3/2	90	10YR 3/4	10	с	m	cllo	
11114	1011(0/2	00	1011(0)4	10	0			
		·						
		·						
		·						
		·						
*Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Maske	d Sand G	Grains.	*Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for	r Problematic Hydric Soils*:
Histosol	(A1)		Sandy Gle	yed Mati	rix (S4)		Coast P	rairie Redox (A16)
Histic E	pipedon (A2)		Sandy Re	• • •				rface (S7)
	istic (A3)		Stripped N	•	,			nganese Masses (F12)
	en Sulfide (A4)		Loamy Mu	-	• •			allow Dark Surface (F22)
	d Layers (A5)		Loamy Gle	•	• •		Other (E	xplain in Remarks)
	uck (A10)		x Depleted I	`	,			
<u> </u>	d Below Dark Surface	e (A11)	Redox Da		. ,		±••••	
	ark Surface (A12)		Depleted I		. ,			f hydrophytic vegetation and
	/lucky Mineral (S1)	<b>`</b>	Redox De	pression	s (⊦8)			hydrology must be present,
	ucky Peat or Peat (S3	)					uniess d	listurbed or problematic.
	Layer (if observed):							
Type:							Ibadala Osli Dassario	Mar in Na
Depth (i	nches):						Hydric Soil Present?	Yes <u>x</u> No
HYDROL	DGY							
	drology Indicators:							
	cators (minimum of o	ne is requir					Secondary Ir	ndicators (minimum of two required)
	Water (A1)		x Water-Sta		. ,			Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		·			e Patterns (B10)
x Saturati	. ,		True Aqua		. ,			son Water Table (C2)
	larks (B1)		Hydrogen		• • •			Burrows (C8)
	nt Deposits (B2)						· · ·	on Visible on Aerial Imagery (C9)
	posits (B3)		Presence		,	,		or Stressed Plants (D1) phic Position (D2)
	at or Crust (B4) posits (B5)		Recent Irc			lieu Soli	. ,	utral Test (D5)
	on Visible on Aerial Ir	nogony (P7			. ,		x FAC-Ne	utrai Test (DS)
	y Vegetated Concave	0,1	, <u> </u>		• •			
Field Obser		oundoo (2			(emainte)		T	
Surface Wa		Yes	No x	Denth (i	inches): (	r		
Water Table		Yes	No		inches): >			
Saturation F		Yes	x No		inches):		Wetland Hydrology Pre	esent? Yes x No
	pillary fringe)	-		1 (.	- /-			
	ecorded Data (stream	gauge, mo	nitoring well, aerial	ohotos, p	previous i	nspectio	ons), if available:	
Remarks:								

			ounty: Auglaize			g Date: <u>12/2</u>	23/2019
Applicant/Owner: <u>AEP</u>				State: OH	Sampling	g Point: upl-bl	-20191223-02
Investigator(s): BL		Sectior	n, Township, Ra	ange: S1, 6S, 4E			
Landform (hillside, terrace, etc.): hillslope			Local relief (	concave, convex, n	one): convex		
Slope (%): 3 Lat: 40.55298		Lona: -	84.34098	. , , ,	Datum: WG	S84	
Soil Map Unit Name: Ble1B1 - Blount silt loam, end mo	praine 2 to 1 no			NIW/I	classification: N/A		
			Vaa				
Are climatic / hydrologic condidions on the site typical fo	-		Yes <u>x</u>		explain in Remarks		
Are Vegetation, Soil, or Hydrology				al Circumstances"		NO	_
Are Vegetation, Soil, or Hydrology	naturally prot	olematic?	(If needed, ex	plain any answers i	n Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing sa	mpling poin	t locations,	transects, impo	ortant features,	etc.	
	N	I 41	O a manda al Ama a				
	No <u>x</u> No x		Sampled Area a Wetland?	Ves	No x		
	No x	within	a wettanu:	163	No <u>x</u>	_	
Remarks:							
w02 point out about 15' NW of boundary near same ele	evation as 2a p	oint in					
VEGETATION - Use scientific names of plan	nts.						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30' radius )	% Cover	Species?	Status	Dominance Test	worksheet:		
1. Prunus serotina	2	no	FACU	Number of Domin			
2. Rhamnus cathartica	10	yes	FAC	Are OBL, FACW,	or FAC:	2	(A)
3.					Dominant Species		
4				Across All Strata:		4	(B)
5	12	=Total Cover		Percent of Domin		50%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' radius	)	- Total Cover		Are OBL, FACW,	UI FAC.	50%	(A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: 15' radius 1. <i>Rhamnus cathartica</i>		yes	FAC	Prevalence Index	r worksheet		
2. Fraxinus americana	1	no	FACU	Total % Cover of:		iply by:	
3.				OBL species	0 x 1 =		
4.				FACW species	10 x 2 =		
5.				FAC species	25 x 3 =	= 75	
	16	=Total Cover		FACU species	88 x 4 =	= 352	
Herb Stratum (Plot size: 5' radius )				UPL species	0 x 5 =	=0	
1. Phalaris arundinaceus	10	no	FACW	Column Totals:	123 (A)	447	(B)
2. Datylus glomerata	20	yes	FACU	Prevalence Index	= B/A =	3.63	
3. Lolium perrene	15	no	FACU				
4. Cirsium arvense	10	no	FACU		etation Indicators		
5. Solidago altissima		no	FACU		t for Hydrophytic V	egetation	
6. Cirsium discolor	5	no	FACU		e Test is >50%		
<ol> <li>Schedonorus arundinaceus</li> <li>Bromus inermis</li> </ol>	<u> </u>	yes	FACU FACU		e Index is ≤3.0* jical Adaptations* (i	Provide sup	porting
9.		yes	1700		data in Remarks or		-
10.					lydrophytic Vegeta		,
	95	=Total Cover			ric soil and wetland		,
Woody Vine Stratum (Plot size: 30' radius	)		L		sturbed or problem		
1. <u>n/a</u>			[	Hydrophytic			
2				Vegetation	Yes No	х	
	0	=Total Cover		Present?			

Profile Desc	ription: (Describe to	o the depth	needed to docum	ent the i	indicator	or con	firm the absence of	indicators.)		
Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture		Remarks	
0-12	10YR 4/3	100					silo			
12-17	10YR 4/3	80 1	0YR 4/1	10	d	m	sicllo			
<u> </u>		1	0YR 4/6	10	с	pl				
17-20	10YR 4/2	60				<u> </u>	cl			
17-20										
	10YR 4/6	40								
		·								
*Type: C=Co	ncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Maske	d Sand G	rains.	*Locatio	on: PL=Pore Li	ning, M=Matrix.	
Hydric Soil I	ndicators:						Indicato	ors for Problem	atic Hydric Soils	s*:
Histosol	(A1)		Sandy Gle	eyed Mat	rix (S4)		Co	ast Prairie Red	ox (A16)	
Histic Ep	ipedon (A2)		Sandy Re	dox (S5)			Da	rk Surface (S7)		
Black His	. ,		Stripped N	/latrix (Se	6)		Iror	n-Manganese N	/lasses (F12)	
	n Sulfide (A4)		Loamy Mu	•	. ,			-	Surface (F22)	
Stratified	Layers (A5)		Loamy Gle	eyed Mat	rix (F2)		Oth	ner (Explain in F	Remarks)	
2 cm Mu			Depleted I		,					
	Below Dark Surface	e (A11)	Redox Da		` '					
	rk Surface (A12)		Depleted I		. ,				ytic vegetation a	
	ucky Mineral (S1)	<b>`</b>	Redox De	pression	s (F8)			, .,	must be prese	nt,
	cky Peat or Peat (S3	)					uni	ess disturbed c	or problematic.	
	ayer (if observed):									
Type:	- h )							- 10	N	N
Depth (in	icnes):						Hydric Soil Prese	nt?	Yes	No <u>x</u>
Remarks:										
complicated	soil profile, no hydric	soil indicato	rs present							
HYDROLO	GY									
-	rology Indicators: ators (minimum of or	ne is require	d: check all that ar	vla			Second	lary Indicators (	minimum of two	o required)
	Water (A1)		Water-Sta		ves (B9)			face Soil Cracl		<u>5 roquirou /</u>
	ter Table (A2)		Aquatic Fa		. ,			ainage Patterns	. ,	
Saturatio	( )		True Aqua		,			-Season Wate		
	arks (B1)		Hydrogen		. ,			ayfish Burrows	( )	
	t Deposits (B2)		Oxidized F					-	on Aerial Image	ery (C9)
	osits (B3)		Presence	of Reduc	ed Iron (	C4)	Stu	inted or Stresse	ed Plants (D1)	
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Till	led Soils	s (C6) Ge	omorphic Posit	ion (D2)	
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		FA	C-Neutral Test	(D5)	
Inundatio	on Visible on Aerial In	magery (B7)	Gauge or	Well Dat	a (D9)					
Sparsely	Vegetated Concave	Surface (B8	) Other (Exp	olain in R	emarks)					
Field Observ	vations:									
Surface Wate	er Present?	Yes	No x	Depth (i	inches): (	)				
Water Table	Present?	Yes	No x	Depth (i	nches): >	•20				
Saturation Pr	resent?		No x		nches): >		Wetland Hydrolog	y Present?	Yes	No <u>x</u>
(includes cap	oillary fringe)							-		
Describe Red	corded Data (stream	gauge, mon	itoring well, aerial	photos, p	orevious ir	nspectio	ons), if available:			
Remarks:										
1										

Project/Site: West Moulton Station / old field		City/Co	ounty: Auglaize		Samplin	g Date: <u>12/2</u>	3/2019
Applicant/Owner: <u>AEP</u>				State: OH	Sampling	g Point: upl-bl-	20191223-03
Investigator(s): BL		Sectior	n, Township, Ra	ange: <u>S1, 6S, 4E</u>			
Landform (hillside, terrace, etc.): hillslope			Local relief	(concave, convex, n	one): none		
Slope (%): 1 Lat: 40.5526		Long: -	-84.34165		Datum: WG	S84	
Soil Map Unit Name: Ble1B1 - Blount silt loam, end m	oraine. 2 to 4 pe			NWI	classification: N/A		
Are climatic / hydrologic condidions on the site typical for			Yes x		explain in Remarks		
Are Vegetation, Soil, or Hydrology	-			nal Circumstances"			
							_
Are Vegetation, Soil, or Hydrology				plain any answers i			
SUMMARY OF FINDINGS - Attach site map	snowing sa	mpling poin	it locations,	transects, impo	ortant features,	etc.	
Hydrophytic Vegetation Present? Yes x	No	Is the	Sampled Area				
Hydric Soil Present? Yes	No x		n a Wetland?		No <u>x</u>	_	
Wetland Hydrology Present? Yes x	No						
Remarks:							
flat area of Phalaris at head of UDF investigated for we	etland criteria, v	v/in powerline I	ROW				
VEGETATION - Use scientific names of pla	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30' radius )	% Cover		Status	Dominance Test	worksheet:		
1. <u>n/a</u>	_			Number of Domin	ant Species That		
2.				Are OBL, FACW,		3	(A)
3				Total Number of [	Dominant Species		
4				Across All Strata:		3	(B)
5				Percent of Domin			(
	0	=Total Cover		Are OBL, FACW,	or FAC:	100%	(A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: 15' radius	_) 10	NOS	EAC	Prevalence Index	workshoot:		
Rhamnus cathartica     Cornus racemosa	15	yes ves	FAC FAC	Total % Cover of:		tiply by:	
3. Cornus alba	5	no	FACW	OBL species	0 x 1 :		
4.				FACW species	105 x 2 :		-
5.				FAC species	25 x 3 :	= 75	-
	30	=Total Cover		FACU species	3 x 4 :	= 12	
Herb Stratum (Plot size: 5' radius )				UPL species	0 x 5 :	= 0	
1. Phalaris arundinaceus	95	yes	FACW	Column Totals:	133 (A)	297	(B)
2. Verbesina alternifolia	5	no	FACW	Prevalence Index	= B/A =	2.23	_
3. Cirsium arvense	3	no	FACU				
4					etation Indicators		
5					t for Hydrophytic V	egetation	
6				x 2 - Dominanc			
7				x 3 - Prevalenc		Dura dal arras	
9.					jical Adaptations* ( data in Remarks or		-
10					lydrophytic Vegeta		,
10	103	=Total Cover			ric soil and wetland		
Woody Vine Stratum (Plot size: 30' radius	_)				sturbed or problem	, ,,	uai DE
1. <u>n/a</u>				Hydrophytic	•		
2.					Yes <u>x</u> No		
	0	=Total Cover		Present?			
Remarks: (Include photo numbers here or on a separa	ate sheet.)						
P 267-N, 268-E, 269-S, 270-W, 271-soils							

SOIL	
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Profile Desc	ription: (Describe to	o the depth n	eeded to docum	ent the i	indicator	or con	firm the absence of i	indicators.)		
Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture		Remarks	
0-7	2.5Y 4/3	100					sasilo			
7-16	2.5Y4/2	100					sacl			
	2.0						000.			
					·			_		
		. <u> </u>								
_	_	-				-	_	_		_
*Type: C=Co	ncentration, D=Deple	otion RM=Re	duced Matrix MS	=Maske	d Sand G	rains	*Locatio	n: PL=Pore Lin	ing M=Matrix	
Hydric Soil I		3000, 100		- maone	u ouna c	Tunio.		ors for Problema		*.
Histosol (			Sandy Gle	ved Mat	rix (S4)			ast Prairie Redo	2	
	vipedon (A2)		Sandy Red	•	. ,			k Surface (S7)	x (/)	
Black His	,		Stripped N	. ,				n-Manganese M	asses (F12)	
	n Sulfide (A4)		Loamy Mu					y Shallow Dark	. ,	
	Layers (A5)		Loamy Gle	-	. ,			er (Explain in R	,	
2 cm Mu	,		Depleted N	-	. ,				,	
	Below Dark Surface	(A11)	Redox Dar		,					
· · ·	ırk Surface (A12)	( ,	Depleted [		. ,		*Indicate	ors of hydrophy	tic vegetation a	and
	ucky Mineral (S1)		Redox Dep		. ,			land hydrology	0	
	cky Peat or Peat (S3)	)			•			ess disturbed or	-	*
	_ayer (if observed):								•	
Type:										
Depth (in	iches):		_				Hydric Soil Preser	nt?	Yes	No <u>x</u>
no redox feat	tures present in lower	r layer; dug se	veral soil pits in v	/icinity, s	ioils all sir	nilar				
HYDROLO	)GY									
	rology Indicators:									
	ators (minimum of or	ne is required:	; check all that ap	<u>(ylqu</u>			Second	ary Indicators (r	ninimum of two	o required)
-	Water (A1)		Water-Stai	,	ives (B9)			face Soil Crack		. ,
High Wa	ter Table (A2)		Aquatic Fa	auna (B1	3)		Dra	inage Patterns	(B10)	
Saturatio	n (A3)		True Aqua	itic Plant	s (B14)		Dry	-Season Water	Table (C2)	
Water Ma	arks (B1)		Hydrogen	Sulfide C	Odor (C1)		Cra	yfish Burrows (	C8)	
Sedimen	t Deposits (B2)		Oxidized F	Rhizosph	eres on L	iving Ro	oots (C3) Sat	uration Visible o	on Aerial Image	∍ry (C9)
Drift Dep	osits (B3)		Presence	of Reduc	ed Iron (	C4)	Stu	nted or Stresse	d Plants (D1)	
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Till	led Soils	s (C6) <u>x</u> Geo	omorphic Positi	on (D2)	
Iron Depo	osits (B5)		Thin Muck	Surface	: (C7)		X_FA0	C-Neutral Test (	D5)	
	on Visible on Aerial In		Gauge or V	Well Dat	a (D9)					
Sparsely	Vegetated Concave	Surface (B8)	Other (Exp	plain in R	lemarks)					
Field Observ	vations:									
Surface Wate	er Present?	Yes	No <u>x</u>	Depth (i	inches): 0	)				
Water Table	Present?	Yes	No x	Depth (i	inches): >	>16				
Saturation Pr	resent?	Yes	No <u>x</u>	Depth (i	inches): >	•16	Wetland Hydrolog	y Present?	Yes x	No
(includes cap	oillary fringe)									
Describe Rec	corded Data (stream	gauge, monito	oring well, aerial p	ohotos, p	previous ir	nspectio	ons), if available:			
Remarks: no primary hy	ydrology indicators pr	esent; slight s	step in hillslope p	rovides s	some wate	er accur	nulation			

Landform (hillside, terrace, etc.): hillslope	Yes x       No (If no, explain in Remarks.)         d?       Are "Normal Circumstances" present? Yes x       No (If needed, explain any answers in Remarks.)         g point locations, transects, important features, etc.         Is the Sampled Area         within a Wetland?       Yes x       No (If no, explain in Remarks.)
Landform (hillside, terrace, etc.):       hillslope         Slope (%):       4       Lat:       40.55296       L         Soil Map Unit Name:       Gwe1B1 - Glynwood silt loam, end moraine, 2 to 6 perced         Are climatic / hydrologic condidions on the site typical for this time of year?         Are Vegetation      , Soil      , or Hydrology      significantly disturbed         Are Vegetation      , Soil      , or Hydrology      naturally problematic?         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present?       Yes       x       No         Hydrology Present?       Yes       x       No	Local relief (concave, convex, none): convex         Long: -84.34315       Datum: WGS84         ent slopes       NWI classification: N/A         Yes x       No (If no, explain in Remarks.)         d?       Are "Normal Circumstances" present? Yes x       No (If needed, explain any answers in Remarks.)         ?       (If needed, explain any answers in Remarks.)         point locations, transects, important features, etc.         Is the Sampled Area         within a Wetland?       Yes x       No
Slope (%):       4       Lat:       40.55296       L         Soil Map Unit Name:       Gwe1B1 - Glynwood silt loam, end moraine, 2 to 6 perced         Are climatic / hydrologic condidions on the site typical for this time of year?         Are Vegetation       , Soil       , or Hydrology       significantly disturbed         Are Vegetation       , Soil       , or Hydrology       naturally problematic?         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present?       Yes       x       No         Hydrology Present?       Yes       x       No         Hydrology Present?       Yes       x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Specie         1.       n/a	Long:       -84.34315       Datum:       WGS84         ent slopes       NWI classification:       N/A         Yes       x       No       (If no, explain in Remarks.)         d?       Are "Normal Circumstances" present? Yes       x       No         ?       (If needed, explain any answers in Remarks.)       Point locations, transects, important features, etc.         Is the Sampled Area       Yes       x       No
Soil Map Unit Name:       Gwe1B1 - Glynwood silt loam, end moraine, 2 to 6 percereated in the sile conditions on the site typical for this time of year?         Are vegetation      , Soil      , or Hydrology      significantly disturbed are Vegetation         Are Vegetation      , Soil      , or Hydrology      naturally problematic?         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present?       Yes       x       No         Hydric Soil Present?       Yes       x       No         Hydric Soil Present?       Yes       x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Speciereated         1.       n/a	ent slopes       NWI classification: N/A         Yes x       No (If no, explain in Remarks.)         d?       Are "Normal Circumstances" present? Yes x       No         ?       (If needed, explain any answers in Remarks.)       Image: State Sta
Are climatic / hydrologic condidions on the site typical for this time of year?         Are Vegetation, Soil, or Hydrology significantly disturbed         Are Vegetation, Soil, or Hydrology naturally problematic?         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present? Yes No         Hydrophytic Vegetation Present? Yes No         Wetland Hydrology Present? Yes No         Remarks:         adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum (Plot size: 30' radius)       % Cover Specie         1. n/a	Yes x       No (If no, explain in Remarks.)         d?       Are "Normal Circumstances" present? Yes x       No (If needed, explain any answers in Remarks.)         g point locations, transects, important features, etc.         Is the Sampled Area         within a Wetland?       Yes x       No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologysignificantly disturbed         Are Vegetation, Soil, or Hydrologynaturally problematic?         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present? Yes No         Hydrophytic Soil Present? Yes No         Hydrology Present? Yes No         Remarks:         adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum (Plot size: 30' radius )       % Cover Specie         1. n/a	d?       Are "Normal Circumstances" present? Yes x No?         (If needed, explain any answers in Remarks.)         point locations, transects, important features, etc.         Is the Sampled Area         within a Wetland?       Yes x No
Are Vegetation       , Soil       , or Hydrology       naturally problematic'         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present?       Yes       x       No         Hydric Soil Present?       Yes       x       No         Wetland Hydrology Present?       Yes       x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Specie         1.       n/a	d?       Are "Normal Circumstances" present? Yes x No?         (If needed, explain any answers in Remarks.)         point locations, transects, important features, etc.         Is the Sampled Area         within a Wetland?       Yes x No
Are Vegetation       , Soil       , or Hydrology       naturally problematic'         SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present?       Yes       x       No         Hydric Soil Present?       Yes       x       No         Wetland Hydrology Present?       Yes       x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Specie         1.       n/a	<pre>? (If needed, explain any answers in Remarks.) point locations, transects, important features, etc. Is the Sampled Area within a Wetland? Yes x No</pre>
SUMMARY OF FINDINGS - Attach site map showing sampling         Hydrophytic Vegetation Present?       Yes       x       No         Hydric Soil Present?       Yes       x       No         Wetland Hydrology Present?       Yes       x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Specie         1.       n/a	I point locations, transects, important features, etc. Is the Sampled Area within a Wetland? Yes x No
Hydric Soil Present?       Yes       x       No         Wetland Hydrology Present?       Yes       x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Specie         1.       n/a	within a Wetland? Yes x No
Wetland Hydrology Present?       Yes x       No         Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       % Cover       Specie         1.       n/a	
Remarks:       adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius       )       % Cover       Specie         1.       n/a	heavy, within existing powerline ROW, possibly compacted soils
adjacent to other substation; extends to west towards NHD stream; soils very         VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius )         1.       n/a         2.	heavy, within existing powerline ROW, possibly compacted soils
Tree Stratum         (Plot size: 30' radius         Absolute         Domin           1.         n/a         % Cover         Specie           2.	
Tree Stratum       (Plot size: 30' radius       % Cover       Specie         1.       n/a	
2.	
3.	Number of Dominant Species That
4	Are OBL, FACW, or FAC: (A)
5.	Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum         (Plot size: 15' radius         0         =Total           1.         n/a	
1. n/a       2.	Percent of Dominant Species That Cover Are OBL, FACW, or FAC: 100% (A/B
2.	,
	Prevalence Index worksheet:
3	Total % Cover of: Multiply by:
	OBL species <u>5</u> x 1 = <u>5</u>
4.	FACW species 90 x 2 = 180
5	FAC species x 3 =
=Total	· · · · · · · · · · · · · · · · · · ·
Herb Stratum (Plot size: 5' radius )	UPL species $0 \times 5 = 0$
1.     Phalaris arundinaceus     90     ye       2.     Solidago altissima     5     no	
2. <u>Solidago altissima</u> <u>5</u> no 3. Scirpus atrovirens <u>5</u> no	
4.	Hydrophytic Vegetation Indicators:
5.	1 - Rapid Test for Hydrophytic Vegetation
6.	x 2 - Dominance Test is >50%
7.	x 3 - Prevalence Index is ≤3.0*
8.	4 - Morphological Adaptations* (Provide supporting
9.	data in Remarks or on a separate shee
10	Problematic Hydrophytic Vegetation* (Explain)
<u>Woody Vine Stratum</u> (Plot size: 30' radius ) =Total	Cover *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>n/a</u>	Hydrophytic
2 0 =Total 0	Vegetation Yes <u>x</u> No
Remarks: (Include photo numbers here or on a separate sheet.)	
P 278-N, 279-E, 280-S, 281-W, 282-soils	

	atrix	Rode	ox Featur	es		firm the absence of indica	,
Depth M (inches) Color (mo		Color (moist)	%	Type*	Loc*	Texture	Remarks
0-7 2.5Y 4/2	90	10YR 4/6	10	c	pl	sacl	Remarks
			·		<u> </u>		
<u>7-18</u> <u>2.5Y 5/1</u>	70	2.5Y 4/6	30	С	m	cl	
*Type: C=Concentration, D	=Depletion RM	=Reduced Matrix MS	S=Maske	d Sand G	irains	*I ocation: PI	=Pore Lining, M=Matrix.
Hydric Soil Indicators:	, ,	,					Problematic Hydric Soils*:
Histosol (A1)		Sandy Gle	eved Mati	rix (S4)			airie Redox (A16)
Histic Epipedon (A2)		Sandy Re	•	( )		Dark Surf	, ,
Black Histic (A3)		Stripped N	• • •	6)			ganese Masses (F12)
Hydrogen Sulfide (A4)		Loamy Mu		,			llow Dark Surface (F22)
Stratified Layers (A5)		Loamy Gl		• •			plain in Remarks)
2 cm Muck (A10)		x Depleted	Matrix (F	3)			
Depleted Below Dark S	Surface (A11)	Redox Da	rk Surfac	e (F6)			
Thick Dark Surface (A1	2)	Depleted	Dark Sur	face (F7)		*Indicators of	hydrophytic vegetation and
Sandy Mucky Mineral (	S1)	Redox De	pression	s (F8)		wetland h	ydrology must be present,
5 cm Mucky Peat or Pe	eat (S3)					unless dis	sturbed or problematic.
Restrictive Layer (if obser	rved):						
Туре:							
Depth (inches):						Hydric Soil Present?	Yes <u>x</u> No
Remarks:					-		
soils very heavy, possibly c	ompacted; evid	ence of past vehicle i	novemer	nt through	wetland	d area	
HYDROLOGY							
Wetland Hydrology Indicato		ired, check all that a				Secondary In	disators (minimum of two required)
Primary Indicators (minimu							dicators (minimum of two required)
Primary Indicators (minimu Surface Water (A1)	m of one is requ	Water-Sta	ined Lea	` '		Surface S	Soil Cracks (B6)
Primary Indicators (minimum Surface Water (A1) X High Water Table (A2)	m of one is requ	Water-Sta	ined Lea auna (B1	3)		Surface S x Drainage	Soil Cracks (B6) Patterns (B10)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3)	m of one is requ	Water-Sta Aquatic Fa True Aqua	iined Lea auna (B1 atic Plant	3) s (B14)		Surface S x Drainage Dry-Seas	Soil Cracks (B6) Patterns (B10) on Water Table (C2)
Primary Indicators (minimum Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	<u>m of one is requ</u>	Water-Sta Aquatic Fa True Aqua Hydrogen	iined Lea auna (B1 atic Plant Sulfide (	3) s (B14) Ddor (C1)		Surface S x Drainage Dry-Seas Crayfish I	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2	<u>m of one is requ</u>	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized f	iined Lea auna (B1 atic Plant Sulfide ( Rhizosph	3) s (B14) Ddor (C1) eres on L	iving Ro	Surface S x Drainage Dry-Seas Crayfish R pots (C3) Saturation	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	m of one is requ	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F	ined Lea auna (B1 atic Plant Sulfide C Rhizosph of Reduc	3) s (B14) Odor (C1) eres on L ced Iron ( <sup>1</sup>	iving Ro. C4)	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	m of one is requ	Water-Sta Aquatic Fa True Aqua Hydrogen <u>x</u> Oxidized F Presence Recent Inc	auna (B1 auna (B1 atic Plant Sulfide C Rhizosph of Reduc	3) s (B14) Ddor (C1) eres on L ced Iron ( tion in Til	iving Ro. C4)	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Primary Indicators (minimum Surface Water (A1) × High Water Table (A2) × Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	<u>m of one is requ</u>	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Iro Thin Much	auna (B1 auna (B1 atic Planta Sulfide C Rhizosph of Reduc on Reduc c Surface	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7)	iving Ro. C4)	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	<u>m of one is requ</u> ?) .erial Imagery (B	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Iro Thin Muck 7) Gauge or	auna (B1 auna (B1 Sulfide C Rhizosph of Reduc on Reduc C Surface Well Dat	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9)	iving Ro. C4)	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	<u>m of one is requ</u> ?) .erial Imagery (B	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Iro Thin Muck 7) Gauge or	auna (B1 auna (B1 Sulfide C Rhizosph of Reduc on Reduc C Surface Well Dat	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9)	iving Ro. C4)	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Primary Indicators (minimum Surface Water (A1) × High Water Table (A2) × Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A	m of one is requ ?) .erial Imagery (B .ncave Surface (	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Exp	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat plain in R	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9) cemarks)	iving Ro C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Primary Indicators (minimum Surface Water (A1) x High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co Field Observations:	<u>m of one is requ</u> ?) .erial Imagery (B	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat plain in R	3) s (B14) Odor (C1) eres on L sed Iron ( tion in Til (C7) a (D9) lemarks) nches): <u>(</u>	iving Ro C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Primary Indicators (minimum Surface Water (A1) × High Water Table (A2) × Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co Field Observations: Surface Water Present?	m of one is requ erial Imagery (B oncave Surface ( Yes _	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat: plain in R Depth (i Depth (i	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9) temarks) nches): <u>(</u> nches): <u>(</u>	iving Rc C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6) x FAC-Neu	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Primary Indicators (minimum Surface Water (A1) × High Water Table (A2) × Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present?	m of one is requ erial Imagery (B oncave Surface ( Yes Yes	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex No x No x	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat: plain in R Depth (i Depth (i	3) s (B14) Odor (C1) eres on L sed Iron ( tion in Til (C7) a (D9) lemarks) nches): <u>(</u>	iving Rc C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6)	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Primary Indicators (minimum Surface Water (A1) × High Water Table (A2) × Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present? Saturation Present?	m of one is requ erial Imagery (B oncave Surface ( Yes Yes Yes	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex No x x No x x No x	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat: plain in R Depth (i Depth (i	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9) temarks) nches): <u>(</u> nches): <u>(</u>	iving Rc C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6) X FAC-Neu Wetland Hydrology Pres	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Primary Indicators (minimum Surface Water (A1)         ×       High Water Table (A2)         ×       Saturation (A3)         Water Marks (B1)         Sediment Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on A         Sparsely Vegetated Co         Field Observations:         Surface Water Present?         Water Table Present?         Saturation Present?         Concludes capillary fringe)         Describe Recorded Data (state)	m of one is requ erial Imagery (B oncave Surface ( Yes Yes Yes	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex No x x No x x No x	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat: plain in R Depth (i Depth (i	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9) temarks) nches): <u>(</u> nches): <u>(</u>	iving Rc C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6) X FAC-Neu Wetland Hydrology Pres	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Primary Indicators (minimum Surface Water (A1)         ×       High Water Table (A2)         ×       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Inundation Visible on A         Sparsely Vegetated Co       Field Observations:         Surface Water Present?       Water Table Present?         Saturation Present?       (includes capillary fringe)	m of one is requ erial Imagery (B oncave Surface ( Yes Yes Yes	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex No x x No x x No x	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat: plain in R Depth (i Depth (i	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9) temarks) nches): <u>(</u> nches): <u>(</u>	iving Rc C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6) X FAC-Neu Wetland Hydrology Pres	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Primary Indicators (minimum Surface Water (A1)         ×       High Water Table (A2)         ×       Saturation (A3)         Water Marks (B1)         Sediment Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on A         Sparsely Vegetated Co         Field Observations:         Surface Water Present?         Water Table Present?         Saturation Present?         Concludes capillary fringe)         Describe Recorded Data (state)	m of one is requ erial Imagery (B oncave Surface ( Yes Yes Yes	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F Presence Recent Inc Thin Muck 7) Gauge or B8) Other (Ex No x x No x x No x	ined Lea auna (B1 atic Plant: Sulfide C Rhizosph of Reduc on Reduc c Surface Well Dat: plain in R Depth (i Depth (i	3) s (B14) Odor (C1) eres on L ced Iron ( tion in Til (C7) a (D9) temarks) nches): <u>(</u> nches): <u>(</u>	iving Rc C4) led Soils	Surface S x Drainage Dry-Seas Crayfish I Saturation Stunted c s (C6) X FAC-Neu Wetland Hydrology Pres	Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)

Project/Site: West Moulton Station / W03		City/Co	ounty: Auglaize	9	Sampling Date: 12/23/2019		
Applicant/Owner: AEP				State: OH	Sampling Point: w-bl-20191223-03b		
Investigator(s): BL	Section	Section, Township, Range: S1, 6S, 4E					
Landform (hillside, terrace, etc.): hillslope				(concave, convex, none):	convex		
Slope (%): 2 Lat: 40.55241		Long: -	.84.3438	(,,,	Datum: WGS84		
Soil Map Unit Name: Gwe1B1 - Glynwood silt loam, en	d moraina 2 ta				ification: N/A		
· · · · · · · · · · · · · · · · · · ·							
Are climatic / hydrologic condidions on the site typical fo			Yes x	No(If no, explain			
Are Vegetation, Soil, or Hydrology			Are "Norr	mal Circumstances" prese	nt? Yes x No		
Are Vegetation, Soil, or Hydrology	naturally prot	plematic?	(If needed, e	xplain any answers in Ren	narks.)		
SUMMARY OF FINDINGS - Attach site map	showing sa	mpling poin	t locations	, transects, importan	t features, etc.		
Hydrophytic Vegetation Present? Yes x	No		Sampled Area		N-		
Hydric Soil Present?     Yes     x       Wetland Hydrology Present?     Yes     x	No No	within	a Wetland?	Yes <u>x</u>	No		
Remarks: small scrub-shrub component of W03 in southwest cor	ner near fence	row					
anal actub-antub component or woo in actumest cor		1000					
VECETATION Lies acientific names of play	nto						
VEGETATION - Use scientific names of plan	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30' radius )	% Cover	Species?	Status	Dominance Test work	sheet:		
1. Quercus palustris	5	yes	FACW	Number of Dominant S	pecies That		
2.				Are OBL, FACW, or FA	AC:4 (A)		
3				Total Number of Domin	•		
4				Across All Strata:	<u>     5    (</u> B)		
5				Percent of Dominant Sp			
	5	=Total Cover		Are OBL, FACW, or FA	.C: 80% (A/E		
Sapling/Shrub Stratum (Plot size: 15' radius	_)	1/20	FAC	Drevelence Index wer	kahaati		
Rhamnus cathartica     Cornus alba	<u>15</u>	yes yes	FAC FACW	Prevalence Index wor Total % Cover of:	Multiply by:		
3. Rubus allegheniensis	5	no	FACU		$0 \qquad x 1 = 0$		
4. Lonicera morrowi	<u> </u>	no	FACU	· · · · · · · · · · · · · · · · · · ·	$x_2 = 90$		
5.	_				$x_{3} = 60$		
	45	=Total Cover		FACU species 2	20 x 4 = 80		
Herb Stratum (Plot size: 5' radius )				UPL species	0 x 5 = 0		
1. Phalaris arundinaceus	5	no	FACW	Column Totals: 8	35 (A) 230 (B)		
2. Allium canadense	10	yes	FACU	Prevalence Index = B/A	.= 2.71		
3. Agrimonia parviflora	15	yes	FACW				
4. Xanthium strumarium	5	no	FAC	Hydrophytic Vegetatic			
5.				· · ·	lydrophytic Vegetation		
6.				x 2 - Dominance Tes			
7.				x 3 - Prevalence Inde			
9.					daptations* (Provide supporting n Remarks or on a separate she		
10.					phytic Vegetation* (Explain)		
	35	=Total Cover			I and wetland hydrology must be		
Woody Vine Stratum (Plot size: 30' radius	_)			present, unless disturbe			
1. <u>n/a</u>				Hydrophytic			
2.					x No		
	0	=Total Cover		Present?			
Remarks: (Include photo numbers here or on a separat	te sheet.)			1			
no photos captured due to low light (near sunset)	,						
					Midwest Region Version		

Depth	Matrix	o the dept		ox Featur		or con	firm the absence of indi	cators.)
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture	Remarks
0-11	2.5Y 4/2	95	10YR 4/6	5	с	pl	salo	
11-14	2.5Y 5/1	90	2.5Y 4/6	10	с	m	sacl	
1114	2.01 0/1	00	2.01 4/0	10	<u> </u>		5001	
		·						
							=	
*Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	6=Maske	d Sand G	Grains.	*Location: P	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators fo	or Problematic Hydric Soils*:
Histoso	l (A1)		Sandy Gle	eyed Mat	rix (S4)		Coast P	Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Re	• • •				urface (S7)
	istic (A3)		Stripped N	`	,			nganese Masses (F12)
	en Sulfide (A4)		Loamy Mu	•	. ,			allow Dark Surface (F22)
	d Layers (A5)		Loamy Gl	•	. ,		Other (E	Explain in Remarks)
	uck (A10)		x Depleted		,			
<u> </u>	d Below Dark Surface	e (A11)	Redox Da		. ,			
	ark Surface (A12)		Depleted		. ,			of hydrophytic vegetation and
	Mucky Mineral (S1)	`	Redox De	pression	s (⊦8)			hydrology must be present,
	ucky Peat or Peat (S3	)					uniess o	disturbed or problematic.
	Layer (if observed):							
Type:	nahaa);						Hydric Soil Present?	Yee y Ne
Depth (	nches):						Hydric Soll Present?	Yes <u>x</u> No
HYDROL	OGY							
	drology Indicators:							
	cators (minimum of o	ne is requir					Secondary I	ndicators (minimum of two required)
	Water (A1)		x Water-Sta		• •			Soil Cracks (B6)
-	ater Table (A2)		Aquatic Fa					e Patterns (B10)
x Saturati	. ,		True Aqua		. ,			ason Water Table (C2)
	/arks (B1)		Hydrogen		• • •			n Burrows (C8)
	nt Deposits (B2)		Oxidized I				· · ·	on Visible on Aerial Imagery (C9)
	posits (B3)		Presence		,	,		or Stressed Plants (D1)
-	at or Crust (B4) posits (B5)		Recent Irc Thin Muck			lied Soll		rphic Position (D2) eutral Test (D5)
	ion Visible on Aerial Ir	nogon/ (P7			. ,			fullal lest (D3)
	y Vegetated Concave	0, 1, 1	,		` '			
Field Obser	, 0	04.14.00 (2					Т	
	ter Present?	Yes	No x	Denth (i	nches): (	n		
Water Table		Yes	<u>No x</u>		nches): >			
Saturation F		Yes	x No		nches): §		Wetland Hydrology Pr	esent? Yes x No
	pillary fringe)				.,.		,	
	ecorded Data (stream	gauge, mo	onitoring well, aerial	photos, p	orevious i	nspectio	ons), if available:	
Remarks:								

Applicant/Owner:       AEP       Static:       OH       Sampling Point:       subscience         Investigator(s):       BL       Section:       Township, Range:       \$1, 68, 4E         Landform, (hillside, tarrace, otc.):       hillside       Locar offer       Construction:       No         Stope (%):       4       Lat:       40,55259       Long:       45,3333       Deture::       WWI dassification:       NA         Are acimatic / hydrology       significantly disturbed?       Are "Normal Circumstances" present? Yes	Project/Site: West Moulton Station / W03		City/Co	ounty: Auglaize	)	Sampling Date: 12/23/2019	
Investigator(s): BL         Section, Township, Range: S1, 6S, 4E           Landform (Illiside, terrace, etc.):         Illisiope           Soli Kap Unit Name:         Covers, none):           Soli Kap Unit Name:         Covers, none):           Are elimatic hydrologic conditions on the site typical for this time of year?         Yes _ No (fin, explain in Remarks.)           Are vegetation, Soli, or Hydrology	Applicant/Owner: AEP				State: OH	Sampling Point: upl-bl-20191223-04	
Landorm (hilside, terrace, etc.): hilsiope Long 44.3433 Datum: WGS84 Soli Map Unit Name: Gwel B1 1 Gynwood sil Long 44.3433 Nut classification: NA We dinatic / hydrologic condidions on the site typical for this time of year? Ves x No (f no, explain in Remarks.) Are Vegetation	Investigator(s): BL		Section	n, Township, R			
Slope (%):       4       Lat:       40.55289       Long:       94.34333       Datum:       Wid Lassingtation:       N/X         Sold Map Unit Name:       Cover B11 - Glynwood silt istime of year?       Yes       No       No       No         Are climatic / hydrologic condidions on the site typical for this time of year?       Yes       No       No       No         Are Vegetation       , Soil       , or Hydrology       alignificantly disturbed?       Are "Normal Circumstances" present? Yes       No       No         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.       Hydrophylic Vegetation Present?       Yes       No       X         Hydrophylic Vegetation Present?       Yes       No       X       Is the Sampled Area         Mydric Soil Present?       Yes       No       X       Is the Sampled Area         Mydric Soil Present?       Yes       No       X       Indicator         Wetland Hydrology Present?       Yes       No       X       Number of Dominant Species That         Are SBI, FACW, or FAC:       0       (A)       Total Knowsheet:       Number of Dominant Species That         1. n/a       0       =Total Cover       Facus       3       (B)         2.       0       <						convex	
Soil Map Unit Name: <u>Gwet B1 - Glynwood silt loam, end moraine, 2 to 6 percent stopes</u> Noi		-	Long: -		· · · · -		
Are climatic / hydrologic conditions on the site typical for this time of year?       Yes		and marging 0 to					
Are Vegetation							
Are Vegetation, Soll, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Is the Sampled Area Hydro Soil Present? Yes No within a Wetland? Yes No Remarks: w03 point out about 5 feet south of wetland boundary VEGETATION - Use scientific names of plants. VEGETATION - Use scientific names of plants. VEGETATION - Use scientific names of plants. In <u>n/a</u>		-					
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       No       x       Is the Sampled Area within a Wetland?       Yes       No       x         Hydrophytic Vegetation Present?       Yes       No       x       within a Wetland?       Yes       No       x         Wetland Hydrology Present?       Yes       No       x       within a Wetland?       Yes       No       x         VECETATION - Use scientific names of plants.       Species?       Status       Indicator       0       (A)         1       n/a				Are "Norn	nal Circumstances" preser	t? Yes x No	
Hydrophytic Vegetation Present?       Yes       No       No       Is the Sampled Area within a Wetland?       Yes       No       x         Hydrophytic Vegetation Present?       Yes       No       x       within a Wetland?       Yes       No       x         Remarks::       Watland Hydrology Present?       Yes       No       x       No       x         Wetland Hydrology Present?       Yes       No       x       No       x         Watland Hydrology Present?       Yes       No       x       No       x         Wetland Hydrology Present?       Yes       No       x       No       x         Watland Hydrology Present?       Yes       No       x       No       x         Wetland Hydrology Present?       Yes       No       x       No       x         Wetland Hydrology Present?       Yes       No       x       No       x         Wetland Hydrology Present?       Yes       No       x       No       x         Yes       No       x       Status       No       X       No       x         1 <i>nda</i> Scover of:       Multiply by:       Otall % Cover of:       Multiply by:       Otall % Cover of:       Mult	Are Vegetation, Soil, or Hydrology	naturally prob	lematic?	(If needed, ex	xplain any answers in Rem	arks.)	
Hydric Soli Present?       Yes       No       within a Wetland?       Yes       No       x         Watland Hydrology Present?       Yes       No       x       within a Wetland?       Yes       No       x         Watland Hydrology Present?       Yes       No       x       within a Wetland?       Yes       No       x         Watland Hydrology Present?       Yes       No       x       Mo       x       x         Watland Hydrology Present?       Yes       No       x	SUMMARY OF FINDINGS - Attach site map	showing sar	npling poin	t locations,	, transects, important	t features, etc.	
Hydric Soli Present?       Yes       No       within a Wetland?       Yes       No       x         Watland Hydrology Present?       Yes       No       x       within a Wetland?       Yes       No       x         Watland Hydrology Present?       Yes       No       x       within a Wetland?       Yes       No       x         Watland Hydrology Present?       Yes       No       x       Mo       x       x         Watland Hydrology Present?       Yes       No       x							
Wetland Hydrology Present?         Yes         No         x           Remarks:         w03 point out about 5 feet south of wetland boundary           VEGETATION - Use scientific names of plants.         Indicator         Indicator           1:         //d         Absolute         Dominant           2:				-		N	
Remarks:         W03 point out about 5 feet south of wetland boundary         VEGETATION - Use scientific names of plants.         Image: Statum (Plot size: 30' radius )         1.       n/a			within	a wetland?	res	NO X	
WZEGETATION - Use scientific names of plants.         Tree Stratum (Plot size: 30' radius )       Absolute Species? Status       Dominance Test worksheet:         1.       n/a							
VEGETATION - Use scientific names of plants.         Tree Stratum       (Plot size: 30' radius)       Absolute % Cover       Dominant Species?       Indicator Status       Dominance Test worksheet:         1. $n^{/a}$		,					
Absolute         Dominant         Indicator           1. n/a	woo point out about 5 reet south of wettand boundary	,					
Absolute       Dominant       Indicator         1. n/a	VECETATION Lies asigntific names of pl	onto					
Tree Stratum       (Plot size: 30' radius       % Cover       Species?       Status       Dominance Test worksheet:         1. n/a	VEGETATION - Use scientific names of pla		Dominant	Indicator			
2.	Tree Stratum (Plot size: 30' radius )				Dominance Test works	sheet:	
3.	1. <u>n/a</u>				Number of Dominant Sp	pecies That	
4.	2.				Are OBL, FACW, or FAC	C: 0 (A)	
5.	3.				Total Number of Domina	ant Species	
0       =Total Cover       0% (A/B)         Sapling/Shrub Stratum       (Plot size: 15' radius)       1         1. n/a	4				Across All Strata:	<u>3</u> (B)	
Saping/Shrub Stratum       (Plot size: 15' radius         1.       n/a         2.	5				Percent of Dominant Sp	ecies That	
1. n/a		0	=Total Cover		Are OBL, FACW, or FAC	C: 0% (A/B)	
2.		)					
3.	N						
4.							
5.	3.						
Herb Stratum (Plot size: 5' radius )0=Total CoverFACU species93 $x 4 = 372$ 1.Phalaris arundinaceus 2.10noFACWColumn Totals:103(A)392(B)2.Dactylus glomerata 3.20yesFACUPrevalence Index = $B/A = 3.81$ 3.813.Lolium perrene 4.10noFACUPrevalence Index = $B/A = 3.81$ 3.814.Cirsium arvense 5.20yesFACU1Rapid Test for Hydrophytic Vegetation6.Cirsium discolor 7.3noFACU2Dominance Test is >50%7.Schedonorus arundinaceus 8.10noFACU3-Prevalence Index is $\leq 3.0^*$ 8.Bromus inermis 9.20yesFACU4Morphological Adaptations* (Provide supporting data in Remarks or on a separate shee10.103=Total Cover-Problematic Hydrophytic Vegetation* (Explain)103=Total Cover103=Total Cover103=Total Cover103=Total Cover103=Total Cover104211.n/a2103=Total Cover <td></td> <td></td> <td></td> <td></td> <td>· · ·</td> <td></td>					· · ·		
Herb Stratum       (Plot size: 5' radius)         1.       Phalaris arundinaceus       10       no       FACW         2.       Dactylus glomerata       20       yes       FACU         3.       Lolium perrene       10       no       FACU         4.       Cirsium arvense       20       yes       FACU         5.       Solidago altissima       10       no       FACU         6.       Cirsium discolor       3       no       FACU         7.       Schedonorus arundinaceus       10       no       FACU         8.       Bromus inermis       20       yes       FACU         9.	5.		-Total Causer		· · · · · · · · · · · · · · · · · · ·		
1. Phalaris arundinaceus       10       no       FACW       Column Totals:       103       (A)       392       (B)         2. Dactylus glomerata       20       yes       FACU       Prevalence Index = B/A =       3.81         3. Lolium perrene       10       no       FACU       Hydrophytic Vegetation Indicators:         4. Cirsium arvense       20       yes       FACU       Hydrophytic Vegetation Indicators:         5. Solidago altissima       10       no       FACU       1 - Rapid Test for Hydrophytic Vegetation         6. Cirsium discolor       3       no       FACU       2 - Dominance Test is >50%         7. Schedonorus arundinaceus       10       no       FACU       3 - Prevalence Index is ≤3.0*         8. Bromus inermis       20       yes       FACU       3 - Prevalence Index is ≤3.0*         9.	Horb Stratum (Diat aiza: 5' radius)	0	= I otal Cover				
2.       Dactylus glomerata       20       yes       FACU       Prevalence Index = B/A =       3.81         3.       Lolium perrene       10       no       FACU       Hydrophytic Vegetation Indicators:         4.       Cirsium arvense       20       yes       FACU       Hydrophytic Vegetation Indicators:         5.       Solidago altissima       10       no       FACU       1 - Rapid Test for Hydrophytic Vegetation         6.       Cirsium discolor       3       no       FACU       2 - Dominance Test is >50%         7.       Schedonorus arundinaceus       10       no       FACU       3 - Prevalence Index is <3.0*	/	10	20	EA CIM	· · · · · · · · · · · · · · · · · · ·		
3.       Lolum perrene       10       no       FACU         4.       Cirsium arvense       20       yes       FACU         5.       Solidago altissima       10       no       FACU         6.       Cirsium discolor       3       no       FACU         7.       Schedonorus arundinaceus       10       no       FACU         8.       Bromus inermis       20       yes       FACU         9.					-	()	
4.       Cirsium arvense       20       yes       FACU         5.       Solidago altissima       10       no       FACU         6.       Cirsium discolor       3       no       FACU         7.       Schedonorus arundinaceus       10       no       FACU         8.       Bromus inermis       20       yes       FACU         9.					T Tevalence index - D/A		
5.       Solidago altissima       10       no       FACU       1 - Rapid Test for Hydrophytic Vegetation         6.       Cirsium discolor       3       no       FACU       2 - Dominance Test is >50%         7.       Schedonorus arundinaceus       10       no       FACU       3 - Prevalence Index is ≤3.0*         8.       Bromus inermis       20       yes       FACU       4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate shee         9.					Hydrophytic Vegetatio	n Indicators:	
6.       Cirsium discolor       3       no       FACU       2 - Dominance Test is >50%         7.       Schedonorus arundinaceus       10       no       FACU       3 - Prevalence Index is ≤3.0*         8.       Bromus inermis       20       yes       FACU       4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate shee         9.							
7.       Schedonorus arundinaceus       10       no       FACU       3 - Prevalence Index is ≤3.0*         8.       Bromus inermis       20       yes       FACU       4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate shee         9.							
8.       Bromus inermis       20       yes       FACU       4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate shee         9.							
10.		20	yes		4 - Morphological Ad	daptations* (Provide supporting	
Woody Vine Stratum       (Plot size: 30' radius       103       =Total Cover       *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         1.       n/a       Hydrophytic       Vegetation       Yes       No       x	9.				data in	Remarks or on a separate sheet	
Woody Vine Stratum     (Plot size: 30' radius       1.     n/a       2.	10				Problematic Hydrop	hytic Vegetation* (Explain)	
1. n/a         Hydrophytic           2.         Vegetation         Yes         No         x		103	=Total Cover		*Indicators of hydric soil	and wetland hydrology must be	
2 Vegetation Yes Nox		)			present, unless disturbe	d or problematic.	
U = I otal Cover Present?	2.		-Tatal O			No <u>x</u>	
		0	= i otal Cover		Present?		
						Midwest Region - Version 2	

		o the depth				or con	firm the absence of i	ndicators.)
Depth	Matrix			ox Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc*	Texture	Remarks
0-8	2.5Y 4/3	100					sacllo	·
8-16	2.5Y 4/2	90 2	2.5Y 4/6	10	с	m	sacl	
		·						
		· ·						
		·						
							-	
*Type: C=Cor	ncentration, D=Deple	etion, RM=R	educed Matrix, M	S=Maske	d Sand G	rains.	*Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil I								rs for Problematic Hydric Soils*:
Histosol (	,		Sandy Gl	-	rix (S4)			st Prairie Redox (A16)
	pedon (A2)		Sandy Re	• • •				k Surface (S7)
Black His			Stripped I		·			-Manganese Masses (F12)
	Sulfide (A4)		Loamy M	-	. ,			y Shallow Dark Surface (F22)
	Layers (A5)		Loamy Gl		. ,		Othe	er (Explain in Remarks)
2 cm Muc		( )	x Depleted		,			
·	Below Dark Surface	e (A11)	Redox Da				* lus eli e e te	
	k Surface (A12)		Depleted		. ,			ors of hydrophytic vegetation and
·	ucky Mineral (S1) ky Peat or Peat (S3	`	Redox De	epression	S (FO)			and hydrology must be present, ess disturbed or problematic.
		)					unie	
	ayer (if observed):							
Type:							Undria Cail Drasan	ta Vaa v Na
Depth (in							Hydric Soil Presen	t? Yes <u>x</u> No
Remarks:								
HYDROLO	GY							
Wetland Hydr	ology Indicators:							
Primary Indica	ators (minimum of o	ne is require	d; check all that a	pply)			Seconda	ary Indicators (minimum of two required)
Surface V	Vater (A1)		Water-Sta	ained Lea	ves (B9)		Surf	face Soil Cracks (B6)
	er Table (A2)		Aquatic F		,			inage Patterns (B10)
Saturation	n (A3)		True Aqu		` '		Dry-	Season Water Table (C2)
Water Ma	( )		Hydrogen		( )			yfish Burrows (C8)
	Deposits (B2)		Oxidized			•	· · · —	uration Visible on Aerial Imagery (C9)
Drift Depo	. ,			Presence of Reduced Iron (C4)				nted or Stressed Plants (D1)
	or Crust (B4)		Recent Ir			led Soil		pmorphic Position (D2)
Iron Depo		(57)	Thin Muc		. ,		FAC	C-Neutral Test (D5)
	n Visible on Aerial Ir							
	Vegetated Concave	Surface (Bo	3) Other (Ex	piain in R	emarks)		1	
Field Observ								
Surface Wate		Yes	<u>No x</u>		nches): (			
Water Table I		Yes	No <u>x</u>		nches): >			Pressent2 Vez No
Saturation Pro		Yes	No x	Depth (I	nches): >	×16	Wetland Hydrology	y Present? Yes <u>No x</u>
(includes cap	illary fringe) orded Data (stream		itoring well parial	nhotos -	revieue	aspecti	) if available:	
Describe Rec	ordeu Data (stream	yauye, mon	moning well, aerial	ρποιοs, ρ	nevious II	ispecil	ns), ii available.	
Remarks:								



APPENDIX B

**OEPA WETLAND ORAM FORMS** 

#### Wetland 01



#### Wetland 01

Site: AEP	West Moulton Station	Rater(s): BL (AECOM)		Date:	12/23/2019
			Field Id:		
	20		w-bl-20191220-01		
	subtotal this page				
	0 20 Metric 5. S	pecial Wetlands.			
ax 10 pts.	subtotal Check all that	t apply and score as indicated.			
	Bog (10)				
	Fen (10)				
	Old growth forest Mature forested w				
		tributary wetland-unrestricted hydrology (10	))		
		tributary wetland-restricted hydrology (5)	- ,		
		Prairies (Oak Openings) (10)			
	Relict Wet Praires				
		e state/federal threatened or endangered sp ory songbird/water fowl habitat or usage (10			
		nd. See Question 5 Qualitative Rating (-10)			
		ant communities, interspe		ohv.	
< 20pts.		egetation Communities.	Vegetation Communi	•	
	Score all present u	•		(0.2471 acres) contiguous area	
	Aquatic bed	-	1 Present and either comprises	small part of wetland's 1	
	1 Emergent		vegetation and is of moderate		
	0 Shrub Forest	-	significant part but is of low qu	uality significant part of wetland's 2	
	Mudflats		vegetation and is of moderate		
	Open water		part and is of high quality	quality of comprises a small	
	Other		3 Present and comprises signifi		3
		an view) Interspersion.	vegetation and is of high qual	ity	
	Select only one. High (5)		Narrative Description of Ve	getation Quality	
	Moderately high(4	)		lominance of nonnative or low	
	Moderate (3)		disturbance tolerant native sp	ecies	
	Moderately low (2)	)		ponent of the vegetation, mod	
	x Low (1) None (0)		although nonnative and/or dis can also be present, and spec		
		nvasive plants. Refer	moderately high, but generally		
		ng form for list. Add	threatened or endangered sp		
	or deduct points for			ecies, with nonnative spp high	
	Extensive >75% c		and/or disturbance tolerant na		
	x Moderate 25-75% Sparse 5-25% cov		absent, and high spp diversity the presence of rare, threaten		
	Nearly absent <5%			iou, or orlaungerou opp	
	Absent (1)		Mudflat and Open Water Cla	ass Quality	
	6d. Microtopogra		0 Absent <0.1ha (0.247 acres)		
	Score all present o 0 Vegetated hummu		1 Low 0.1 to <1ha (0.247 to 2.4 2 Moderate 1 to <4ha (2.47 to 9		
	0 Coarse woody del		3 High 4ha (9.88 acres) or more		
	0 Standing dead >2		1 9 (100 / 100		
	1 Amphibian breedir	ng pools	Microtopography Cover Sca	ale	
		-	0 Absent	ar if more common	
			<ol> <li>Present very small amounts of marginal quality</li> </ol>	II more common	
		-	2 Present in moderate amounts	s, but not of highest	
ategory 2			quality or in small amounts of		
	20 GRAND TOTAL (max 100		2 Brogent in moderate or great		

20 GRAND TOTAL(max 100 pts)

3 Present in moderate or greater amounts

and of highest quality

#### Wetland 02


#### Wetland 02

Site: AEP	West Moulton Station	Rater(s): BL (AECOM	)	Date:	12/23/2019
			Field Id:		
	25		w-bl-20191220-	02	
	subtotal this page				
	0 25 Metric 5. S	pecial Wetlands.			
ax 10 pts.	subtotal Check all that	t apply and score as indicated.			
	Bog (10)				
	Fen (10)				
	Old growth forest Mature forested w				
		/tributary wetland-unrestricted hydrology (1)	0)		
		/tributary wetland-restricted hydrology (5)	o)		
	Lake Plain Sand I	Prairies (Oak Openings) (10)			
	Relict Wet Praires				
		e state/federal threatened or endangered s ory songbird/water fowl habitat or usage (10			
		nd. See Question 5 Qualitative Rating (-10)			
		lant communities, interspe		raphy.	
x 20pts.		legetation Communities.	Vegetation Comm		
Lopio.		using 0 to 3 scale.		1ha (0.2471 acres) contiguous area	1
	Aquatic bed			rises small part of wetland's 1	
	1 Emergent			erate quality, or comprises a	
	0 Shrub		significant part but is of lo		
	Forest Mudflats			rises significant part of wetland's 2 erate quality or comprises a small	
	Open water		part and is of high quality		
	Other			ignificant part, or more, of wetland's	3
		lan view) Interspersion.	vegetation and is of high	quality	
	Select only one. High (5)		Narrative Description o	f Vegetation Quality	
	Moderately high(4)	4)		predominance of nonnative or low	
	Moderate (3)	,	disturbance tolerant nativ		
	x Moderately low (2	)		component of the vegetation, mod	
	Low (1)			or disturbance tolerant native spp	
	None (0)	invasive plants. Refer		species diversity moderate to erallyw/o presence of rare	
		ng form for list. Add	threatened or endangere		
	or deduct points f			e species, with nonnative spp high	
	Extensive >75% of			nt native spp absent or virtually	
	x Moderate 25-75%			ersity and often, but not always,	
	Sparse 5-25% co Nearly absent <5		the presence of rare, three	atened, or endangered spp	
	Absent (1)		Mudflat and Open Wate	r Class Quality	
	6d. Microtopogra	aphy.	0 Absent <0.1ha (0.247 ac		
		using 0 to 3 scale.	1 Low 0.1 to <1ha (0.247 to		
	1 Vegetated humm 0 Coarse woody de		2 Moderate 1 to <4ha (2.47 3 High 4ha (9.88 acres) or		
	0 Standing dead >2		o pringin mila (a.ou acres) u	more	
	0 Amphibian breedi		Microtopography Cover	r Scale	
			0 Absent		
			1 Present very small amou	nts or if more common	
		-	of marginal quality 2 Present in moderate amo	ounts, but not of highest	
ategory 2			quality or in small amoun		
<u> </u>	26 CRAND TOTAL (may 100		2 Present in moderate or a		

26 GRAND TOTAL(max 100 pts)

3 Present in moderate or greater amounts

and of highest quality

#### Wetland 03



#### Wetland 03

ite: AEP W	est Mou	Iton Station	Rater(s): BL (AECON	Л)		Date:	12/23/201
					Field Id:		
	27.5				w-bl-20191220-02		
	subtotal this						
	0 27.5	Metric 5. Spe	ecial Wetlands.				
x 10 pts.	subtotal	Check all that a	apply and score as indicated	۱.			
		Bog (10)					
		Fen (10)					
		Old growth forest (10 Mature forested wetl					
			outary wetland-unrestricted hydrology (	(10)			
			outary wetland-restricted hydrology (5)	(10)			
			iries (Oak Openings) (10)				
		Relict Wet Praires (1					
			tate/federal threatened or endangered		es (10)		
			songbird/water fowl habitat or usage ( See Question 5 Qualitative Rating (-1				
	1 28.5		nt communities, intersp		ion, microtopography,		
x 20pts.	subtotal		getation Communities.		Vegetation Community Cov	er Scale	
		Score all present usi	-	0	Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed	0		Present and either comprises small pa		
		1 Emergent			vegetation and is of moderate quality,	or comprises a	
		0 Shrub			significant part but is of low quality		
		Forest Mudflats		2	Present and either comprises significa vegetation and is of moderate quality of		
		Open water			part and is of high quality	i comprises a smail	
		Other		3	Present and comprises significant part	, or more, of wetland's 3	
			view) Interspersion.		vegetation and is of high quality		
		Select only one.				Quality	
		High (5) Moderately high(4)			Narrative Description of Vegetation		
		Moderate (3)			disturbance tolerant native species		
		x Moderately low (2)			Native spp are dominant component o	f the vegetation, mod	
		Low (1)			although nonnative and/or disturbance		
		None (0)			can also be present, and species diver		
		6c. Coverage of inv Table 1 ORAM long			moderately high, but generallyw/o pres threatened or endangered spp to	ence of rare	
		or deduct points for o			A predominance of native species, with	n nonnative spp high	
		Extensive >75% cov			and/or disturbance tolerant native spp		
		x Moderate 25-75% co			absent, and high spp diversity and ofte		
		Sparse 5-25% cover			the presence of rare, threatened, or en	dangered spp	
		Nearly absent <5% c Absent (1)	cover (U)		Mudflat and Open Water Class Qual	ity	
		6d. Microtopograph	IV.	0	Absent <0.1ha (0.247 acres)	ity	
		Score all present usi	-	1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
		1 Vegetated hummuck			Moderate 1 to <4ha (2.47 to 9.88 acres	5)	
		0 Coarse woody debris		3	High 4ha (9.88 acres) or more		
		0 Standing dead >25ci 0 Amphibian breeding			Microtopography Cover Scale		
			p0019	0	Microtopography Cover Scale Absent		
					Present very small amounts or if more	common	
					of marginal quality		
ategory 2				2	Present in moderate amounts, but not quality or in small amounts of highest of		

and of highest quality



APPENDIX C

**OEPA STREAM ASSESSMENT FORMS** 

#### Stream 01

Modified Small Drainage WW

Field Methods for Evaluating Primary Headwater Streams in Ohio Ohio EPA, Division of Surface Water

Version 4.0 October 2018

Primary Headwater Habitat Field Evaluation Form HHEI Score (sum of metrics 1+2+3)	65
SITE NAME/LOCATION AEP-West Moulton Station / s-bl-20191223-01 SITE NUMBER S01 RIVER BASIN St. Marys RIVER CODE DRAINAGE AREA (mi <sup>2</sup> ) 0.1 LENGTH OF STREAM REACH (ft) 200 LAT 40.54979 LONG -84.34404 RIVER MILE 0.34 DATE 12/23/19 SCORER BL COMMENTS Intermittent; past straightening evident NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO	tructions
1.       SUBSTRATE (Estimate percent of every type present). Check ONL Y two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       BLDR SLABS [16 pts]       0%         BOULDER (>256 mm) [16 pts]       0%       SILT [3 pt]         COBBLE (65-256 mm) [12 pts]       0%       LEAF PACK/WOODY DEBRIS [3 pts]         COBBLE (65-256 mm) [12 pts]       0%       0%         COBBLE (65-266 mm) [12 pts]       0%       0%         CAY or HARDPAN [0 pt]       0%         RAVEL (2-64 mm) [9 pts]       30%         MUCK [0 pts]       0%         Total of Percentages of       0.00%         Bidr Slabs, Boulder, Cobble, Bedrock       0.00%         SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPEs:       15	HHEI Metric Points Substrate Max = 40 20 A + B
time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):          > 30 centimeters [20 pts]       5 cm - 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       5 cm [5pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0pts]         COMMENTS OHW = 3.4'w x 1.1'd         MAXIMUM POOL DEPTH (centimeters): 30         3.         BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):	Pool Depth Max = 30 <b>30</b> Bankfull
> 4.0 meters (> 13') [30 pts]       ✓       > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]         > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]       ≤ 1.0 m (≤ 3' 3") [5 pts]         > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]       ≤ 1.0 m (≤ 3' 3") [5 pts]         COMMENTS BF = 4.8'w x 1.9'd	Width Max=30
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*         RIPARIAN WIDTH       FLOODPLAIN QUALITY       (Most Predominant per Bank)         L R       L R       L R         Wide >10m       Mature Forest, Wetland       Conservation Tillage         Vide >10m       Immature Forest, Shrub or Old Field       Urban or Industrial         Narrow <5m	P
Stream Flowing     Subsurface flow with isolated pools (interstitial)     COMMENTS Current snowmelt / precipitation     SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):     None     You have a stream of the stream of th	t)
□ 0.5 □ 1.5 □ 2.5 □ >3	
STREAM GRADIENT ESTIMATE Flat (0.5 fr/100 ft) Flat to Moderate Moderate (2 fr/100 ft) Moderate to Severe Severe (10 ft/10	D 11)
October 2018 Revision Page 1	

WWH Name: Clear Creek	Distance from Evaluated Stream 0.68
CWH Name:	Distance fromEvaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS. INC	CLUDING THE ENTIRE WATER SHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Moulton	NRCS Soil Map Page: NRCS Soil Map Stream Order:
Auglaizo	
County: Hughize	Township/City: Saint Marys
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last	st precipitation: 12/16/19 Quantity: 0.09
BL 298-Up 299-dow	
Photo-documentation Notes: DL 200 00, 200 down	
Elevated Turbidity?(Y/N): _ Canopy (%	% open): 40%
Were samples collected for water chemistry? (Y/N):	): Lab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxy	
Is the sampling reach representative of the stream (	(Y/N) Y If not, explain:
lots of ag runoff	
A didition of a survey of a distribution of a distribution in a distribution of	
Additional comments/description of pollution impacts Overall Stability of BOTH Stream Banks (check of	Angela Madaméteki Sétekia Ukasétekia
overall Stability of DOTTI Stream Danks (check)	inderately Stable Unstable
100000	DLOGICAL OBSERVATIONS
	(Record all observations below)
Fish Observed? (Y/N) Species observed	l (if known):
Frogs or Tadpoles Observed? (Y/N) Specie	ies observed (if known):
Salamanders Observed? (Y/N) Species obs	served (if known):
A such a Manual such shades Observed D O(M)	Species observed (if known):
Aduatic Macroinvertebrates Observed? ( Y/N)	
Aquatic Macroinvertebrates Observed? (Y/N)	
Comments Regarding Biology:	
Comments Regarding Biology:	DESCRIPTION OF STREAM REACH (This must be completed
Comments Regarding Biology: none observed DRAWING AND NARRATIVE	DESCRIPTION OF STREAM REACH (This <u>must</u> be completed features of interest for site evaluation and a narrative description of the stream's jocation

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APPENDIX D

PHOTOGRAPHIC LOG

Imagine it. Delivered.

### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project

Wetland 01	
Date:	
December 23, 2019	
Description:	
- ···· <b>·</b>	
PEM	
	A A A A A A A A A A A A A A A A A A A
Category 1	
Facing North	
	and a construction of the second states of the construction of the second states of the secon



Imagine it. Delivered.

### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project

Wetland 01	
Date:	
December 23, 2019	
Description:	
PEM	
Category 1	
Soil Pit	
	A Contraction of the Contraction
	2019.12.20



## AECOM Imagine it. Delivered.

### **PHOTOGRAPHIC LOG** WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project





## AECOM Imagine it. Delivered.

### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

**Client Name:** 

### AEP

Site Location:

West Moulton Station Expansion Project



Upland 01	
Date:	
December 23, 2019	
Description:	
Soil Pit	
	2019, 1

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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

Client Name:

AEP

### ine:

### Site Location:

West Moulton Station Expansion Project

Wetland 02a	
Date:	
December 23, 2019	
Description:	
PEM	
Category 1	
Soil Pit	
	ALC PROVIDE A CONTRACTOR



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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

Site Location: West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project





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### **PHOTOGRAPHIC LOG** WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

**Client Name:** 

### AEP

Site Location: West Moulton Station Expansion Project Project No. 60567952





### Upland 02 Date:

# AECOM Imagine it. Delivered.

### **PHOTOGRAPHIC LOG** WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project

Project No. 60567952

Upland 02 Date: December 23, 2019 **Description:** Soil Pit



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### **PHOTOGRAPHIC LOG** WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES Project No.

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project

60567952





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

Site Location:

West Moulton Station Expansion Project

Project No. 60567952

 Upland 03

 Date:

 December 23, 2019

 Description:

 Facing North





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

Client Name:

### AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

Client Name:

### AEP

Site Location:

West Moulton Station Expansion Project

Project No. 60567952

 Upland 03

 Date:

 December 23, 2019

 Description:

 Soil Pit



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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project

Project No. 60567952

 Upland 04

 Date:

 December 23, 2019

 Description:

 Facing East





## AECOM Imagine it. Delivered.

### **PHOTOGRAPHIC LOG** WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project

Project No. 60567952

Stream 01

Date:

December 23, 2019

Description:

Intermittent

Modified Small Drainage Warmwater

Facing Upstream





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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

### Site Location:

West Moulton Station Expansion Project

Project No. 60567952

#### Stream 01

Date:

December 23, 2019

**Description:** 

Intermittent

Modified Small Drainage Warmwater

Substrate



#### Date:

December 23, 2019

**Description:** 

UDF and old field vegetative community

Facing North



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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

**Client Name:** 

### AEP

West Moulton Station Expansion Project

Site Location:

Project No. 60567952

#### Date:

December 23, 2019

### **Description:**

UDF and old field vegetative community

Facing East



#### Date:

December 23, 2019

#### **Description:**

UDF and old field vegetative community

Facing South



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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES

Client Name:

### AEP

West Moulton Station Expansion Project

Site Location:

Project No. 60567952

#### Date:

December 23, 2019

#### **Description:**

UDF and old field vegetative community

Facing West



#### Date:

December 23, 2019

#### **Description:**

Roadside ditch UDF and landscaped area/urban vegetative community

Facing North



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### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES Project No.

**Client Name:** 

AEP

### Site Location:

West Moulton Station Expansion Project

60567952

#### Date:

December 23, 2019

### **Description:**

Roadside ditch UDF and landscaped area/urban vegetative community

Facing South



#### Date:

December 23, 2019

#### **Description:**

Shrub-scrub vegetative community

Facing North



# AECOM Imagine it. Delivered.

December 23, 2019

Upland woodland vegetative community

**Description:** 

Facing South

### **PHOTOGRAPHIC LOG** WETLANDS, STREAMS, UDFs, AND **VEGETATIVE COMMUNITIES**

#### **Client Name:**

AEP

Date:

### Site Location:

West Moulton Station Expansion Project

Project No. 60567952

#### Date:

December 23, 2019

**Description:** 

Agricultural vegetative community

Facing East



Imagine it. Delivered.

### PHOTOGRAPHIC LOG WETLANDS, STREAMS, UDFs, AND VEGETATIVE COMMUNITIES Project No.

Client Name:

#### Site Location:

West Moulton Station Expansion Project

60567952

#### Date:

AEP

December 23, 2019

#### **Description:**

Urban vegetative community; existing West Moulton Station

Facing West



#### Date:

December 23, 2019

#### **Description:**

Old field and urban vegetative community; existing gravel drive and cellular tower

Facing Wast





APPENDIX E

AGENCY CORRESPONDENCE

### Tucker, Jason

From: Sent: To: Subject: susan\_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov> Friday, March 09, 2018 10:35 AM Tucker, Jason Wapakoneta Transmission Infrastructures (Several 138 kV Stations) in Auglaize Co.



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



TAILS# 03E15000-2018-TA-0902

Dear Mr. Tucker,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees  $\geq$ 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats, we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service (Service) should be initiated to assess any potential impacts.

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

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.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,

anven
Dan Everson Field Supervisor





JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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

March 23, 2018

Jason Tucker AECOM 525 Vine Street, Suite 1800 Cincinnati, Ohio 45202

Re: 18-409; Wapakoneta Improvements Project

**Project:** The proposed project includes a new Gristmill Station, a new Gemini Station, a new 138 kV transmission line between Gristmill and Gemini Stations, a new 138 kV transmission line between Gemini and West Moulton Stations, and expanding the West Moulton Station.

**Location:** The proposed project is located in Pusheta and Washington Townships, Auglaize County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Natural Heritage Database:** The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Greater redhorse (*Moxostoma valenciennesi*), State threatened, federal species of concern Great blue heron rookery

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

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 area east of Dixie Highway and south of Weimert School Road is within the vicinity of records for the Indiana bat (Myotis sodalis), a state endangered and federally endangered species. Presence of the Indiana bat has been established in the area, and therefore additional summer surveys would not constitute presence/absence in the area. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (Carya ovata), shellbark hickory (Carya laciniosa), bitternut hickory (Carya cordiformis), black ash (Fraxinus nigra), green ash (Fraxinus pennsylvanica), white ash (Fraxinus americana), shingle oak (Ouercus imbricaria), northern red oak (Ouercus 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 (Ouercus 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.

The remainder of the project area is within the range of the Indiana bat (*Myotis sodalis*). If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, and the pondhorn (Uniomerus tetralasmus), a state threatened mussel. This project must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2016), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 10 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. This is further explained within the Ohio Mussel Survey Protocol. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. The Ohio Mussel Survey Protocol (2018) can be found at:

http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/licenses%20&%20permits/OH%20Mussel%20Su rvey%20Protocol.pdf

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

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, the project is not likely to impact this species.

The DOW has a record for a great blue heron rookery within the boundary of the project area. The rookery is located within the large woodlot between the following roads: Washington Pike, Burr Oak Road, Kettlersville Road, and Kohler Road. Nesting great blue herons are protected under the Migratory Bird Treaty Act of 1918. Impacts to great blue heron rookeries can have a significant impact on a local population due to the large number of birds that return each year to the same rookery to nest. Rookeries often include a certain set of characteristics that are not easily found elsewhere. The DOW recommends that construction activity within the rookery be avoided to preserve the rookery. If construction within the rookery cannot be avoided, the DOW recommends at the very least, the rookery be avoided during the nesting season of March 1 through June 31 as to not interfere with nesting birds. In addition, the DOW recommends a 100 yard no activity buffer be maintained around the rookery during the breeding season as to not interfere with nesting birds.

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

# WEST MOULTON STATION EXPANSION PROJECT AUGLAIZE COUNTY, OHIO

# WETLAND DELINEATION AND STREAM ADDENDUM REPORT

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



Prepared by:



525 Vine Street, Suite 1800 Cincinnati, Ohio 45202

Project #: 60567952

September 2021



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### **APPENDICES**

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### LIST OF ACRONYMS and ABBREVIATIONS

AECOM	AECOM Technical Services, Inc.
AEP Ohio Transco	American Electric Power Ohio Transmission Company
DBH	Diameter at Breast Height
DOW	Division of Wildlife
DWR	Division of Water Resources
FAC	Facultative
FACU	Facultative upland
FACW	Facultative wetland
GIS	Geographic Information System
GNSS	Global Navigation Satellite System
HHEI	Headwater Habitat Evaluation Index
IBI	Index of Biotic Integrity
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OAC	Ohio Administrative Code
OBL	Obligate wetland
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OHWM	Ordinary High Water mark
ONHD	Ohio Natural Heritage Database
ORAM	Ohio Rapid Assessment Method
PEM	Palustrine emergent
PFO	Palustrine forested
PSS	Palustrine scrub/shrub
PUB	Palustrine unconsolidated bottom
PHW	Primary Headwater
QHEI	Qualitative Habitat Evaluation Index
ROW	Right-of-way
UDF	Upland Drainage Feature
UPL	Upland
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOTUS	Waters of the U.S.



### 1.0 INTRODUCTION

American Electric Power Ohio Transmission Company (AEP Ohio Transco) proposes to expand the existing West Moulton Station (Project) in Auglaize County, Ohio. The Project is one part of the Wapakoneta Improvements Project, having separate Wetland Delineation and Stream Assessment reports for each project component. In January of 2019, AEP Ohio Transco identified the existing 14-acre property boundary and two transmission lines, as the potential work area (Project Survey area). The original delineation report (*West Moulton Station Expansion Project Wetland Delineation and Stream Assessment Report – January 2020*) discussed herein shall be referred to as the January 2020 – Report.

Since the January 2020 – Report, AEP Ohio Transco has updated the Project survey area to include a 0.30-acre survey area to accommodate an additional work pad and adjustment to the proposed tie-in to the St. Mary's substation. The proposed Project location which includes the newly added work areas is illustrated on Figure 1. As reference, AECOM has included the identified features along the Project that were originally provided within the January 2020 – Report within the text and tables. Previously identified features, data forms, photographs, and supporting information of the previous surveys of the Project are contained within the January 2020 Report.

This addendum wetland delineation and stream assessment report includes the results (data forms, photographs, and updated figures) associated with wetlands and/or streams identified within the addendum survey area of the Project. Due to potential overlap between new and previously delineated features, the extent of delineated features and survey areas (new and previously identified) are displayed on the attached figures within the extent of the Project.

### 2.0 METHODOLOGY

A comprehensive methodology of the field surveys and data reviews completed for this report are included in the January 2020 – Report and a summary of the delineation and agency coordination methodology has been provided below.

Delineations were conducted in accordance with 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) (*MW Regional Supplement*) (USACE, 2010). In addition, any wetlands that were identified were classified using the Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method for Wetlands V. 5.0 (ORAM) (Mark, 2010). Stream assessments were conducted using the methods described in the OEPA's Methods for Assessing Habitat in Flowing Waters by using the OEPA's Qualitative Habitat Evaluation Index (Rank, 2006) and the OEPA's Field Methods for Evaluating Primary Headwater Streams in Ohio (OEPA, 2020).

1



Initial coordination from the U.S. Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR) was received as part of the original January 2020 – Report in August 2019. As the Addendum Project is located within proximity to the original assessment, AECOM review the original correspondence to identify if additional habitats would warrant further review regarding the previous correspondence for federal and/or state listed threatened and/or endangered species.

#### 3.0 RESULTS

On September 2, 2021, an AECOM ecologist walked the Project survey area to conduct the wetland delineation, stream assessment, and habitat survey. AECOM extended the boundary of one wetland (Wetland 03a) that extends south of the proposed additional work area. No new wetlands, streams or ponds were identified within the addendum study area. The location of this extended wetland is illustrated on Figure 3. The extended feature, previously identified features and habitat types found in the Project survey area are discussed in detail in the following sections.

#### 3.1 WETLAND DELINEATION

#### 3.1.1 PRELIMINARY SOILS EVALUATION

Soils in delineated wetlands were observed and documented as part of the delineation methodology. According to the USDA NRCS Web Soil Survey of Auglaize County, Ohio, and the USDA NRCS Hydric Soils Lists of Ohio, there are three soil types mapped within the Project survey area (NRCS, 2019). One soil map unit is identified as hydric, while the other map units have hydric components that may comprise nine percent of the area mapped within the unit. No new soil map units were identified in the added Project survey areas. Table 1 provides a detailed overview of all soil series and soil map units within the Project survey area. Soil map units located within the Project survey area are shown on Figure 2.

TABLE 1
SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE WEST MOULTON STATION EXPANSION PROJECT
SURVEY AREA

Soil Series	Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Blount	Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	end moraines, till plains	No	Pewamo, end moraine 6%
Glynwood	Gwe1B1	Glynwood silt loam, end moraine, 2 to 6 percent slopes	end moraines, till plains	No	Pewamo 6%
Pewamo	Pt	Pewamo silty clay loam, 0 to 1 percent slopes	depressions, till plains	Yes	Pewamo 85% Montgomery 5%

USDA, NRCS. 2019 Soil Survey Geographic (SSURGO) Database for Auglaize County, Ohio. Available online at: http://soildatamart.nrcs.usda.gov/

USDA, NRCS. National Hydric Soils List by State (Soil Data Access Live query). Available online at:

https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcseprd1316619.html



#### 3.1.2 NATIONAL WETLAND INVENTORY MAP REVIEW

According to the NWI data covering the Project location, the September 2021 – Addendum Project Survey area contains no new NWI mapped wetlands were identified. The locations of the NWI mapped wetlands are shown on Figure 2.

#### 3.1.3 DELINEATED WETLANDS

No new wetlands were delienated and one previously identified wetland (Wetland 03a) was extended during the September 2021 field survey. The boundary of the previously delineated Wetland 03a was extended into the Addendum Survey Area. The total delineated area of Wetland 03a is approximately 0.68 acre (previously 0.67-acre) and the extension did not result in a change of the ORAM score and/or Category for this wetland. The remaining wetlands noted in the follow tables are associated with features delineated in the original Project survey area and additional information for these resources are provided in the January 2020 – Report.

Completed USACE wetland delineation forms and OEPA ORAM forms for the extended portion of Wetland 03a are provided in Appendix A and B of this Addendum report, respectively. Photographs taken of the extended portion of Wetland 03a are provided in Appendix C.

Wetland Name	Latitude	tudo I Longitudo I Watland I -		ORAM Score <sup>b</sup>	ORAM Category⁵	Acreage within Project Survey Area	
Wetland 01	40.55235	-84.33982	PEM	20	Category 1	0.02	
Wetland 02a	40.5529	-84.34085	PEM	26	Cotogony 1	0.74	
Wetland 02b	40.55336	-84.34057	PSS	20	Category 1	0.05	
Wetland 03a	40.55296	-84.34315	PEM	28.5	Cotogony 1	<mark>0.68</mark>	
Wetland 03b	40.55241	-84.3438	PSS	20.5	Category 1	0.08	
Totals: 3 Wetlands							

 TABLE 2

 DELINEATED WETLANDS WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY AREA

Cowardin Wetland Type<sup>a</sup>: PEM = palustrine emergent; PSS = palustrine scrub-shrub ORAM<sup>b</sup> Scoring Category: 0-29.9 = Category 1

**NOTE**: Cells highlighted in yellow indicate changes to the information provided in the January 2020 – Report.

### 3.2 STREAM ASSESSMENT

During the Addendum survey, AECOM did not identify and/or modify any previously identified streams. Previously identified features, data forms, photographs, and supporting information of the previous surveys of the Project are contained within the January 2020 – Report.



#### 3.3 PONDS

No ponds were identified within the original and/or addendum Project survey area.

#### 3.4 **UPLAND DRAINAGE FEATURES**

No new upland drainage features (UDFs) were identified during the September 2021 field survey. Previously identified upland drainage features from the January 2020 field survey are discussed in the January 2020 - Report.

#### 3.5 **VEGETATIVE COMMUNITIES**

AECOM conducted a general habitat survey in conjunction with the stream and wetland field surveys during the January 2020 and September 2021 studies. Portions of the Project survey area were identified to contain either agricultural land, landscaped areas, old field, shrub-scrub, successional woodland, urban, or stream/wetland vegetative communities. Table 3 provides descriptions and updated acreages of the various types of land cover found in entire Project Survey Area, which is composed of the addendum and original survey areas. Vegetative communities that have had acreages updated are highlighted to signify the increase in area. Vegetated land cover can be seen visually from aerial photography provided on Figure 4.

TABLE 3 VEGETATIVE COMMUNITIES WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY AREA

Vegetative Community	Description	Approximate Acreage	Approximate Percentage
Agricultural Land	Land utilized for row crops, whether planted or not, and not used for pasture or hay fields.	1.4	9.5
Landscaped Areas	Residential and commercial properties having frequently mowed grasses and forbs.	0.9	6.1
Old Field	Herbaceous cover exhibiting the earliest stages of recolonization by plants following disturbance, typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed. Old field areas identified were infrequently maintained areas of grasses and forbs with occasional shrubs.	<u>5.1</u>	<mark>34.0</mark>
Shrub-Scrub	The presence of shrubby woody vegetation covering at least 30% of the land surface, representing a successional stage between old field and second growth forest. Dominant species consist of herbaceous communities similar to old field habitat with a few woody species, to a community dominated by woody shrubs and/or sapling tree species.	3.6	<mark>23.8</mark>
Successional Woodland	Successional mixed hardwood woodland dominated by black locust ( <i>Robinia pseudoacacia</i> ), black cherry ( <i>Prunus serotina</i> ), and Tree of Heaven ( <i>Ailanthus</i> <i>altissima</i> ). The dominant shrub/sapling-layer included gray dogwood ( <i>Cornus racemosa</i> ) and Morrow's honeysuckle ( <i>Lonicera morrowii</i> ).	0.7	4.8
Urban	Developed areas with residential and commercial land uses, including roads, buildings and parking lots, generally devoid of significant woody and herbaceous vegetation.	<mark>1.8</mark>	<mark>10.9</mark>



TABLE 3
VEGETATIVE COMMUNITIES WITHIN THE WEST MOULTON STATION EXPANSION PROJECT SURVEY
AREA

Vegetative Community	Description	Approximate Acreage	Approximate Percentage
Stream/Wetland	All delineated wetlands, including emergent, scrub-shrub and forested components.	1.6	10.9
	Totals:	<mark>14.7</mark>	100%

#### 3.6 RARE, THREATENED AND ENDANGERED SPECIES

Within the January 2020 – Report, AECOM conducted a rare, threatened, and endangered species review for the AEP Wapakoneta Improvement Project which includes the West Moulton Station Expansion Project survey area. As this addendum does not result in a significant change of location, habitats, and potential for impact to the federal and/or state listed threatened and endangered species, a revision to the previous assessment was not warranted. Therefore, results of the protected species review are provided within the January 2020 – Report.

#### 4.0 SUMMARY

This addendum includes the wetland delineation and stream assessment results associated with the new survey areas located outside of the original survey associated with the West Moulton Station Expansion Project's January 2020 – Report. Identified wetlands and streams within the original wetland delineation and stream assessment report, *West Moulton Station Expansion Project – January 2020*, are included in the tables and on figures for reference. Data forms, photographs, and supporting information of the previously identified features are provided within the January 2020 – Report. As a result of the September 2021 Addendum, AECOM did not identify any new features and only extend one previously identified wetland 03a) within the Addendum Survey Area.

Due to previous correspondence with ODNR/USFWS agencies regarding potential for federal and/or state listed species, AECOM concluded that the additional addendum area would not result in a change of the previously completed assessment. Therefore, threatened and endangered species summaries associated with this addendum are provided within the January 2020 – Report.

The information contained in this wetland delineation report is for additional study areas 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 because 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. Final jurisdictional determination of WOTUS can only be made by the USACE.



#### 5.0 REFERENCES

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APPENDIX A

USACE WETLAND DETERMINATION DATA FORMS

# Upland 5

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: West M	loultor	Station Expansion Project	ot	City/Co	ounty: Auglaize Cou	inty		Sampling Date:	09/02/2021
Applicant/Owner:	AEP					State:	ОН	Sampling Point:	upl-jbl-20210902-01
Investigator(s): JBL				Section,	Township, Range:	S1, T6	S, R4E		
Landform (hillside, te	errace,	etc.): <u>flat</u>			Local relief (conca	ve, conv	ex, none):	none	
Slope (%): 0-1	Lat:	40.55304		Long:	-84.343017			Datum: NAD 83	
Soil Map Unit Name:	Gwe	1B1 - Glynwood silt loam,	end moraine, 2 to	6 percer	nt slopes	N	WI classi	fication: N/A	
Are climatic / hydrolc	ogic co	onditions on the site typica	I for this time of ye	ear?	Yes <u>x</u> No	)	(If no, ex	plain in Remarks.)	
Are Vegetation	, Soil	, or Hydrology	significantly dist	urbed?	Are "Normal Circun	nstances	" present?	Yes <u>x</u> No	)
Are Vegetation	, Soil	, or Hydrology	naturally probler	natic?	(If needed, explain	any ansv	wers in Re	marks.)	
SUMMARY OF	FIND	INGS – Attach site r	map showing	sampli	ing point locati	ons, tr	ansects	, important fea	tures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes Yes	No <u>X</u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes	No_X
Wetland Hydrology Present?	Yes	No <u>X</u>			

Remarks:

Sample point upl-jbl-20210902-01 for adjacent previously delineated wetland 03a. Taken on area north of wetland and eat of existing sub station. Area does not meet wetland criteria.

**VEGETATION** – Use scientific names of plants.

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
1. Pyrus calleryana	15	Yes	UPL	Number of Dominant Species That
2				Are OBL, FACW, or FAC: 3 (A)
3.				Total Number of Dominant Species
4.				Across All Strata: <u>6</u> (B)
5				Percent of Dominant Species That
	15	=Total Cover		Are OBL, FACW, or FAC:
Sapling/Shrub Stratum (Plot size: 15')				
1. Cornus racemosa	60	Yes	FAC	Prevalence Index worksheet:
2. Pyrus calleryana	15	Yes	UPL	Total % Cover of: Multiply by:
3.				OBL species 0 x 1 = 0
4.				FACW species 0 x 2 = 0
5.				FAC species 115 x 3 = 345
	75	=Total Cover		FACU species 40 x 4 = 160
Herb Stratum (Plot size: 5')				UPL species 45 x 5 = 225
1. Solidago canadensis	40	Yes	FACU	Column Totals: 200 (A) 730 (B)
2. Vernonia gigantea	25	Yes	FAC	Prevalence Index = B/A = 3.65
3. Daucus carota	15	No	UPL	
4. Geum canadense	15	No	FAC	Hydrophytic Vegetation Indicators:
5.				1 - Rapid Test for Hydrophytic Vegetation
6.				2 - Dominance Test is >50%
7.				3 - Prevalence Index is ≤3.0 <sup>1</sup>
8.				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9.		·		data in Remarks or on a separate sheet)
10.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	95	=Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30' )				be present, unless disturbed or problematic.
1. Toxicodendron radicans	15	Yes	FAC	Hydrophytic
2.				Vegetation
	15	=Total Cover		Present? Yes No X
Remarks: (Include photo numbers here or on a separa	ate sheet.)			•

Hydrophytic vegetation indicators not observed

Profile Description: (Describe	to the dep				ator or c	confirm the absence of	of indicators.)
Depth Matrix			x Featur	4	. 2	_	
nches) Color (moist)	%	Color (moist)	%	Туре	Loc <sup>2</sup>	Texture	Remarks
0-10 10YR 4/3	100					Loamy/Clayey	
10-16 10YR 4/2	100	10YR 4/2				Loamy/Clayey	Faint redox concentration
ype: C=Concentration, D=Dep	letion. RM=	-Reduced Matrix. N	//S=Mas	ked Sano	d Grains.	<sup>2</sup> Location	PL=Pore Lining, M=Matrix.
vdric Soil Indicators:		,					s for Problematic Hydric Soils
Histosol (A1)		Sandy Gle	yed Mat	rix (S4)		Coas	t Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Red	dox (S5)			 Iron-I	Manganese Masses (F12)
Black Histic (A3)		Stripped N					Parent Material (F21)
Hydrogen Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)
Stratified Layers (A5)		Loamy Mu		eral (F1)			· (Explain in Remarks)
2 cm Muck (A10)		Loamy Gle					( ,
Depleted Below Dark Surface	e (A11)	Depleted N	-				
Thick Dark Surface (A12)	,,,,,,,,	Redox Dar	•	,		<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		Depleted [		• •	<b>`</b>		nd hydrology must be present,
5 cm Mucky Peat or Peat (S3	3)	Redox Dep			)		s disturbed or problematic.
estrictive Layer (if observed):				- ()			
IVDE							
his data form is revised from Mi ′ersion 8.2, 2018. (https://www.n	•						
Depth (inches): Remarks: 'his data form is revised from Mi 'ersion 8.2, 2018. (https://www.n	•					NRCS Field Indicators	
Depth (inches): Remarks: This data form is revised from Mi (ersion 8.2, 2018. (https://www.n lo hydric soil indicators present YDROLOGY	•					NRCS Field Indicators	
Depth (inches): Remarks: This data form is revised from Mi /ersion 8.2, 2018. (https://www.n lo hydric soil indicators present YDROLOGY Vetland Hydrology Indicators:	nrcs.usda.g	ov/Internet/FSE_D	OCUME			NRCS Field Indicators	s of Hydric Soils in the United St
Depth (inches): Remarks: This data form is revised from Mi /ersion 8.2, 2018. (https://www.n lo hydric soil indicators present YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of o	nrcs.usda.g	ov/Internet/FSE_D	OCUME	NTS/nrc	s142p2_	NRCS Field Indicators 053171.pdf) <u>Secondar</u>	s of Hydric Soils in the United St
Depth (inches): Remarks: This data form is revised from Mid /ersion 8.2, 2018. (https://www.n Io hydric soil indicators present YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1)	nrcs.usda.g	ov/Internet/FSE_D red; check all that	OCUME	NTS/nrc	s142p2_	NRCS Field Indicators 053171.pdf) <u>Secondar</u> Surfa	s of Hydric Soils in the United St y Indicators (minimum of two re ce Soil Cracks (B6)
Depth (inches): temarks: his data form is revised from Mi version 8.2, 2018. (https://www.n lo hydric soil indicators present <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> trimary Indicators (minimum of of Surface Water (A1) High Water Table (A2)	nrcs.usda.g	ov/Internet/FSE_D red; check all that Water-Sta Aquatic Fa	OCUME apply) ined Lea auna (B1	NTS/nrc aves (B9) 3)	s142p2_	NRCS Field Indicators 053171.pdf) <u>Secondar</u> Surfa Drain	s of Hydric Soils in the United St y Indicators (minimum of two re ce Soil Cracks (B6) age Patterns (B10)
Depth (inches): temarks: his data form is revised from Mi version 8.2, 2018. (https://www.n lo hydric soil indicators present <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> trimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3)	nrcs.usda.g	ov/Internet/FSE_D red; check all that Water-Sta Aquatic Fa True Aqua	OCUME apply) ined Lea auna (B1 tic Plant	NTS/nrc aves (B9) 3) s (B14)	s142p2_	NRCS Field Indicators 053171.pdf) Secondar Surfa Drain Dry-S	s of Hydric Soils in the United St y Indicators (minimum of two re ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2)
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Depth (inches): Cemarks: Chis data form is revised from Middensing Sectors 8.2, 2018. (https://www.nilo hydric soil indicators present CyDROLOGY Vetland Hydrology Indicators: Crimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	nrcs.usda.g	ov/Internet/FSE_D	apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph	aves (B9) 3) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2)	s142p2_ 	NRCS Field Indicators 053171.pdf) <u>Secondar</u> Surfa Drain Dry-S Crayf pots (C3)Satur	s of Hydric Soils in the United St y Indicators (minimum of two re ce Soil Cracks (B6) age Patterns (B10) season Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (
Depth (inches): Remarks: This data form is revised from Midversion 8.2, 2018. (https://www.nownyciscoli indicators present PyDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	nrcs.usda.g	ov/Internet/FSE_D red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence	OCUME apply) ined Lea auna (B1 titc Plant Sulfide ( Rhizosph of Redu	aves (B9) 3) S (B14) Odor (C1 Leres on l ced Iron	s142p2_ ) Living Rc (C4)	NRCS Field Indicators 053171.pdf) Secondar Surfa Drain Dry-S Crayf pots (C3)Sturt	y Indicators (minimum of two re ce Soil Cracks (B6) age Patterns (B10) Geason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery ( ed or Stressed Plants (D1)
Depth (inches): temarks: his data form is revised from Mi 'ersion 8.2, 2018. (https://www.n lo hydric soil indicators present <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> trimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	nrcs.usda.g	ov/Internet/FSE_D red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	OCUME apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc	aves (B9) 3) cs (B14) Odor (C1 eres on l cced Iron ction in Ti	s142p2_ ) Living Rc (C4)	NRCS Field Indicators 053171.pdf) <u>Secondar</u> Surfa Drain Dry-S Crayf pots (C3) Sturt s (C6) Geon	y Indicators (minimum of two re ce Soil Cracks (B6) age Patterns (B10) season Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery ( ed or Stressed Plants (D1) norphic Position (D2)
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# Upland 5

# Upland 6

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: West M	Project/Site: West Moulton Station Expansion Project		ect City/	County:	Auglaize Co	unty		Sampling Date:	09/02/2021
Applicant/Owner:	AEP					_State:	ОН	Sampling Point:	upl-jbl-20210902-02
Investigator(s): JBL		Sectio	on, Town	nship, Range:	S1, T6	S, R4E			
Landform (hillside, terrace, etc.): mound				Loca	al relief (conc	ave, conv	ave, convex, none): <u>concave</u>		
Slope (%): 2	_ Lat:	40.550373	Lor	ng: <u>-84.3</u>	52443			Datum: NAD 83	
Soil Map Unit Name	: Ble1	B1				N	WI class	sification: N/A	
Are climatic / hydrol	ogic co	onditions on the site typic	al for this time of year?	Yes	<u>x</u> N	o	(If no, e	xplain in Remarks.)	
Are Vegetation	, Soi	I, or Hydrology	significantly disturbed	? Are "	Normal Circu	mstances	" present	t? Yes <u>x</u> No	D
Are Vegetation	, Soi	I, or Hydrology	naturally problematic?	(If ne	eded, explair	n any ansv	wers in R	emarks.)	
SUMMARY OF	FIND	INGS – Attach site	map showing sam	olina p	oint locat	ions. tr	ansect	s. important fea	tures. etc.

Hydrophytic Vegetation Present?	Yes	No <u>X</u>	Is the Sampled Area	Vee	
Hydric Soil Present?	Yes	No <u>X</u>	within a Wetland?	Yes	No <u>X</u>
Wetland Hydrology Present?	Yes	No X			

Remarks:

Sample point upl-jbl-20210902-01 for extension of previously delineated PEM wetland 03a. Taken on area north of extended wetland area. Sample oint does not meet wetland criteria

#### **VEGETATION** – Use scientific names of plants.

				bsolute	Dominant	Indicator			
· · ·	t size:	30'	%	Cover	Species?	Status	Dominance Test worksheet:		
1. <u>N/A</u>							Number of Dominant Species That		
2							Are OBL, FACW, or FAC:	1	(A)
3							Total Number of Dominant Species		
4					. <u> </u>		Across All Strata:	2	(B)
5							Percent of Dominant Species That		
					=Total Cover		Are OBL, FACW, or FAC:	50.0%	(A/B)
Sapling/Shrub Stratum	(Plot siz	ze: 15	')						
1. <u>N/A</u>					. <u> </u>		Prevalence Index worksheet:		
2					<u> </u>		Total % Cover of: Mult	iply by:	_
3							OBL species x 1 =	0	_
4							FACW species 90 x 2 =	180	_
5.							FAC species 5 x 3 =	15	_
					=Total Cover		FACU species 0 x 4 =	0	
Herb Stratum (Plo	t size:	5'			-		UPL species 25 x 5 =	125	
1. Phalaris arundinacea				90	Yes	FACW	Column Totals: 120 (A)	320	(B)
2. Daucus carota				25	Yes	UPL	Prevalence Index = B/A = 2	2.67	•
3. Vernonia gigantea				5	No	FAC			•
4.							Hydrophytic Vegetation Indicators:		
5.							1 - Rapid Test for Hydrophytic Ve	getation	
6.							2 - Dominance Test is >50%	-	
7.							$3 - Prevalence Index is \le 3.0^{1}$		
8.							4 - Morphological Adaptations <sup>1</sup> (P	rovide sup	porting
9.							data in Remarks or on a separa	ate sheet)	
10.							Problematic Hydrophytic Vegetati	on <sup>1</sup> (Expla	uin)
				120	=Total Cover		<sup>1</sup> Indicators of hydric soil and wetland I		,
Woody Vine Stratum	(Plot siz	ze: 30	<u>'</u> )		-		be present, unless disturbed or proble		nust
1. <u>N/A</u>							Hydrophytic		
2							Vegetation		
					=Total Cover		Present? Yes No	Х	
Remarks: (Include photo	numbers h	ere or on a	separate	sheet.)			L		
Hydrophytic vegetation in	dicators not	observed		,					

	Matrix	lepth needed to docu Redo:	x Featur					,	
Depth I inches) Color (m		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-9 10YR						Loamy/Clayey			
9-17 10YR		10YR 3/6	2	С		Loamy/Clayey	Prominen	nt redox concentr	ation
									ation
		·							
ype: C=Concentration,	D=Depletion, R	M=Reduced Matrix, N	/IS=Mas	ked San	d Grains.	<sup>2</sup> Location	n: PL=Pore Lir	ning, M=Matrix.	
ydric Soil Indicators:						Indicato	rs for Problen	natic Hydric So	ils³:
Histosol (A1)		Sandy Gle	yed Mat	rix (S4)		Coa	st Prairie Redo	ox (A16)	
Histic Epipedon (A2)		Sandy Rec	dox (S5)			Iron-	Manganese M	lasses (F12)	
Black Histic (A3)		Stripped M	latrix (S6	5)		Red	Parent Materia	al (F21)	
Hydrogen Sulfide (A4) Dark Surface (S7)						Very	Shallow Dark	Surface (F22)	
_Stratified Layers (A5)	1	Loamy Mu	cky Mine	eral (F1)		Othe	er (Explain in R	(emarks)	
2 cm Muck (A10)		Loamy Gle	eyed Mat	trix (F2)					
_ Depleted Below Dark	Surface (A11)	Depleted N	Aatrix (F	3)					
_ Thick Dark Surface (	412)	Redox Dar	k Surfac	æ (F6)		<sup>3</sup> Indicato	rs of hydrophy	tic vegetation an	d
Sandy Mucky Minera	l (S1)	Depleted E	Dark Sur	face (F7)	)	wetla	and hydrology	must be present	,
5 cm Mucky Peat or I	Peat (S3)	Redox Dep	pression	s (F8)		unle	ss disturbed or	r problematic.	
estrictive Layer (if obs	erved):								
Туре:									
Type: Depth (inches): emarks: his data form is revised	from Midwest R	• • • •							No
Type: Depth (inches): emarks: his data form is revised ersion 8.2, 2018. (https:	from Midwest R //www.nrcs.usda	• • • •				NRCS Field Indicator			
Type: Depth (inches): emarks: his data form is revised ersion 8.2, 2018. (https: ydric soils indictors not	from Midwest R //www.nrcs.usda observed.	• • • •				NRCS Field Indicator			
Type: Depth (inches): emarks: nis data form is revised ersion 8.2, 2018. (https: ydric soils indictors not YDROLOGY retland Hydrology Indi	from Midwest R //www.nrcs.usda observed. cators:	a.gov/Internet/FSE_D	OCUME			NRCS Field Indicator 053171.pdf)	s of Hydric So	ils in the United	State
Type: Depth (inches): emarks: nis data form is revised ersion 8.2, 2018. (https: ydric soils indictors not YDROLOGY Yetland Hydrology Indi rimary Indicators (minin	from Midwest R //www.nrcs.usda observed. cators:	a.gov/Internet/FSE_D	OCUME	NTS/nrc	s142p2_	NRCS Field Indicator 053171.pdf) Seconda	s of Hydric So	ils in the United	State
Type: Depth (inches): emarks: nis data form is revised ersion 8.2, 2018. (https: ydric soils indictors not //DROLOGY fetland Hydrology Indi rimary Indicators (minin Surface Water (A1)	from Midwest R //www.nrcs.usda observed. cators: num of one is rea	a.gov/Internet/FSE_D quired; check all that a	OCUME	NTS/nrc	s142p2_	NRCS Field Indicator 053171.pdf) <u>Seconda</u>	s of Hydric So ry Indicators (i ace Soil Crack	minimum of two	State
Type: Depth (inches): emarks: his data form is revised ersion 8.2, 2018. (https: ydric soils indictors not <b>/DROLOGY</b> <b>/etland Hydrology Indi</b> <u>rimary Indicators (minin</u> Surface Water (A1) High Water Table (A2	from Midwest R //www.nrcs.usda observed. cators: num of one is rea	a.gov/Internet/FSE_D quired; check all that a Water-Stai Aquatic Fa	OCUME apply) ined Lea auna (B1	NTS/nrc ves (B9) 3)	s142p2_	NRCS Field Indicator 053171.pdf) <u>Seconda</u> Surf Drain	s of Hydric So ry Indicators (r ace Soil Crack nage Patterns	ils in the United minimum of two (B6) (B10)	State
Type: Depth (inches): emarks: his data form is revised ersion 8.2, 2018. (https: ydric soils indictors not YDROLOGY Yetland Hydrology Indi rimary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3)	from Midwest R //www.nrcs.usda observed. cators: num of one is rea	a.gov/Internet/FSE_D <u>quired; check all that a</u> Water-Stai Aquatic Fa True Aqua	OCUME	NTS/nrc wes (B9) 3) s (B14)	s142p2_	NRCS Field Indicator 053171.pdf) <u>Seconda</u> Drain Dry-	ry Indicators (i ace Soil Crack nage Patterns Season Water	minimum of two s (B6) (B10) Table (C2)	State
Type: Depth (inches): emarks: nis data form is revised ersion 8.2, 2018. (https: ydric soils indictors not <b>//DROLOGY</b> /etland Hydrology Indi rimary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	from Midwest R //www.nrcs.usda observed. cators: hum of one is rea	a.gov/Internet/FSE_D <u>quired; check all that a</u> Water-Stai Aquatic Fa True Aqua Hydrogen	OCUME apply) ined Lea auna (B1 tic Plant Sulfide (	NTS/nrc wes (B9) 3) s (B14) Ddor (C1	)	NRCS Field Indicator 053171.pdf) <u>Seconda</u> Drain Dry- Cray	ry Indicators (r ry Indicators (r ace Soil Crack nage Patterns Season Water fish Burrows (r	minimum of two s (B6) (B10) Table (C2)	State
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# Wetland 03a

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Gemini	Project/Site: Gemini West Moulton 138 kV T-Line Project		unty	Sampling Date:	09/02/2021
Applicant/Owner:	AEP		State: OH	Sampling Point:	w-jbl-20210902-01
Investigator(s): JBL		Section, Township, Range:	S8, T6S, R6E		
Landform (hillside, te	rrace, etc.): swale	Local relief (conca	ive, convex, none):	concave	
Slope (%): 2	Lat: <u>40.552714</u>	Long: -84.34403		Datum: NAD 83	
Soil Map Unit Name:	Gwe1B1 - Glynwood silt loam, end moraine, 2 to 6	δ percent slopes	NWI classif	ication: N/A	
Are climatic / hydrolo	gic conditions on the site typical for this time of year	ar? Yes <u>x</u> No	o (If no, exp	lain in Remarks.)	
Are Vegetation	, Soil, or Hydrologysignificantly distu	rbed? Are "Normal Circur	mstances" present?	Yes <u>x</u> No	)
Are Vegetation	, Soil, or Hydrologynaturally problem	atic? (If needed, explain	any answers in Rei	marks.)	
SUMMARY OF F	FINDINGS – Attach site map showing s	ampling point locati	ons, transects	, important fea	tures, etc.

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes	Х	No
Wetland Hydrology Present?	Yes X	No		_		

Remarks:

Sample point w-jbl-20210902-01 for extension of wetland 03a- PEM. Wetland domniated by phalaris. Boundary of the wetland is defined by geomorphic position and dominance of hydrophytic veg. Wetland extends to NHD stream to the west

#### **VEGETATION** – Use scientific names of plants.

	Absolute	Dominant	Indicator		
Tree Stratum (Plot size: 15')	% Cover	Species?	Status	Dominance Test worksheet:	
1. <u>N/A</u>				Number of Dominant Species That	
2				Are OBL, FACW, or FAC:	1 (A)
3				Total Number of Dominant Species	I
4				Across All Strata:	1(B)
5				Percent of Dominant Species That	I
		=Total Cover		Are OBL, FACW, or FAC:	100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)				
1. <i>N/A</i>				Prevalence Index worksheet:	
2.				Total % Cover of: Multi	iply by:
3.				OBL species 0 x 1 =	0
4.				FACW species 100 x 2 =	200
5.				FAC species 0 x 3 =	0
		=Total Cover		FACU species 5 x 4 =	20
Herb Stratum (Plot size: 5')				UPL species 0 x 5 =	0
1. Phalaris arundinacea	100	Yes	FACW	Column Totals: 105 (A)	220 (B)
2. Cirsium discolor	5	No	FACU		
2					
A		·		Hydrophytic Vegetation Indicators:	
4 5.				1 - Rapid Test for Hydrophytic Veg	getation
				X 2 - Dominance Test is >50%	Jotation
7				$\frac{1}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$	
8				4 - Morphological Adaptations <sup>1</sup> (Pr	rovide supporting
0				data in Remarks or on a separa	
				Problematic Hydrophytic Vegetation	
10	105	=Total Cover			,
Woody Vine Stratum (Plot size: 30'	<u>الالال</u>			<sup>1</sup> Indicators of hydric soil and wetland h be present, unless disturbed or proble	
1. N/A	)				
				Hydrophytic	
2		-Tatal Cause		Vegetation	
		=Total Cover		Present? Yes X No	
Remarks: (Include photo numbers here or on a separ	rate sheet.)				I

Hydrophytic vegetation indictor present as Dominance Test >50% and Prevalence Index is less than 3

non	Matri			x Featur			onfirm the absence o	i indicators.j
epth nches)	Color (moist		Color (moist)	% reatur	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/2	<u>, 70</u> 100		/0	Турс		Loamy/Clayey	Ttelliarts
		·						
4-17	10YR 3/1	95	10YR 3/4	5	 	PL/M	Loamy/Clayey	Distinct redox concentrations
							·	
Гуре: С=Со	oncentration, D=I	Depletion, RM	=Reduced Matrix, I	MS=Mas	ked San	d Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
ydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	eyed Mat	trix (S4)		<u>?</u> Coast	Prairie Redox (A16)
Histic Ep	oipedon (A2)		Sandy Re	dox (S5)			Iron-M	langanese Masses (F12)
Black His	stic (A3)		Stripped N	/latrix (S	6)		Red P	arent Material (F21)
Hydroge	n Sulfide (A4)		Dark Surfa	ace (S7)			Very S	Shallow Dark Surface (F22)
	l Layers (A5)		Loamy Mu	-			Other	(Explain in Remarks)
2 cm Mu			Loamy Gl	-				
	Below Dark Sur		Depleted	-	-		<b>3</b>	
	ark Surface (A12)		X Redox Da					of hydrophytic vegetation and
	lucky Mineral (S1		Depleted			)		d hydrology must be present,
	cky Peat or Peat		Redox De	pression	is (F8)		unless	disturbed or problematic.
_	Layer (if observe	ed):						
Tuno								
							Hydric Soil Present?	
Depth (in Remarks: This data for /ersion 8.2,	m is revised from 2018. (https://ww	w.nrcs.usda.g	gov/Internet/FSE_D				NRCS Field Indicators	• Yes X No of Hydric Soils in the United State
Depth (in Remarks: This data for /ersion 8.2,	m is revised from	w.nrcs.usda.g	gov/Internet/FSE_D				NRCS Field Indicators	
Depth (in Remarks: This data forn (ersion 8.2, Hydric soil in YDROLO	m is revised from 2018. (https://ww dictor of Redox I	w.nrcs.usda.ç Dark Surface p	gov/Internet/FSE_D				NRCS Field Indicators	
Depth (in Remarks: This data for Jersion 8.2, Hydric soil in TYDROLO Wetland Hyd	m is revised from 2018. (https://ww dictor of Redox I DGY drology Indicato	w.nrcs.usda.g Dark Surface p D <b>rs:</b>	gov/Internet/FSE_D present	OCUME			NRCS Field Indicators 053171.pdf)	of Hydric Soils in the United State
Depth (in Remarks: This data for /ersion 8.2, Hydric soil in YDROLO Vetland Hyd Primary Indic	m is revised from 2018. (https://ww dictor of Redox I <b>IGY</b> drology Indicato cators (minimum	w.nrcs.usda.g Dark Surface p D <b>rs:</b>	gov/Internet/FSE_D present ired; check all that	apply)	ENTS/nrc	s142p2_	NRCS Field Indicators 053171.pdf) <u>Secondar</u> y	of Hydric Soils in the United State
Depth (in Remarks: This data forn /ersion 8.2, Hydric soil in YDROLO Yetland Hyd Primary Indic Surface	m is revised from 2018. (https://ww dictor of Redox I OGY drology Indicato cators (minimum Water (A1)	w.nrcs.usda.g Dark Surface p D <b>rs:</b>	gov/Internet/FSE_D present <u>ired; check all that</u> Water-Sta	apply)	ENTS/nrc	s142p2_	NRCS Field Indicators 053171.pdf) <u>Secondary</u> Surfac	of Hydric Soils in the United State
Depth (in Remarks: This data forn (ersion 8.2, dydric soil in <b>YDROLO</b> <b>YDROLO</b> <b>Vetland Hyd</b> <u>Primary Indic</u> Surface M High Wa	m is revised from 2018. (https://ww dictor of Redox I OGY drology Indicator cators (minimum Water (A1) ter Table (A2)	w.nrcs.usda.g Dark Surface p D <b>rs:</b>	jov/Internet/FSE_D present <u>ired; check all that</u> Water-Sta Aquatic Fa	apply) ined Lea	ENTS/nrc aves (B9)	s142p2_	NRCS Field Indicators 053171.pdf) <u>Secondary</u> Surfac Draina	of Hydric Soils in the United State <u>r Indicators (minimum of two requ</u> se Soil Cracks (B6) age Patterns (B10)
Depth (in Remarks: This data forn (ersion 8.2, dydric soil in <b>YDROLO</b> <b>Yetland Hyd</b> Primary Indic Surface V High Wa Saturatio	m is revised from 2018. (https://ww dictor of Redox I OGY drology Indicato cators (minimum Water (A1) ter Table (A2) on (A3)	w.nrcs.usda.g Dark Surface p D <b>rs:</b>	pov/Internet/FSE_D present <u>ired; check all that</u> Water-Sta Aquatic Fa True Aqua	apply) ined Lea auna (B1	ENTS/nrc aves (B9) 13) ts (B14)	s142p2_	NRCS Field Indicators 053171.pdf) Secondary Surfac Draina Dry-Se	of Hydric Soils in the United State <u>r Indicators (minimum of two requ</u> se Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
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APPENDIX B

**OEPA ORAM FORMS** 

# **Background Information**

Name	Bill Leopold	09/02/2021	Γ
Afilliation	AECOM		
Address	525 Vine Street, Suite 1800 Cincinnati, OH 45202		
Phone Number:	(513) 419-3449		
Email address:	bill.leopold@aecom.com		
Name of Wetland:	Wetland 03a,b		
Vegetation Communities (US	Emergent and shrub/scrub		
HGM Class	Depressional		
Location of Wetland include available, north arrow, landr roads, etc.			
	See attached map		
		Sources of information used	-
		Check all that apply	
Lat/Long or UTM Coordinate		Site Visit	×
USGS Quad Name	Moulton	USGS Topo Map	×
County	Auglaize	National Wetland Inventory Map	×
Township	S1	Ohio Wetland Inventory Map	×
Section and Subsection	6S, 4E	Soil Survey	×
Hydrologic Unit Code	St. Marys (04100004)	Delineation report/map	×
Wetland Size (acres, hectare	Approximately 0.77-acres		

Name: Wetland 03a,b		12/23/2019
sketch (include north arrow,		
other surface waters, vegeta	tion zones, etc.)	Site: AEP West Moulton Station
	See attached map	
N = 4 = = /0 =		
Notes/Comments/Narrative	nd 03a) and a PSS portion (03b)	
Final Score	28.5	Provisional Wetland Category

# **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 Unit 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 mitigation 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.	х	

# **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 a 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 Reynoldsburg 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	<b>Critical Habitat.</b> 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	<b>Documented High Quality Wetland.</b> 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	<b>Category 1 Wetlands.</b> Is the wetland less than 0.5 hectares (1 acre) in size and <b>hydrologically isolated</b> and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea, 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	Go to Question 6
6	<b>Bogs.</b> 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	<b>Fens.</b> Is the wetland a carbon accumulating (peat, muck) wetland that is the 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

#	Question	Circle one
8a	<b>"Old Growth Forest."</b> 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
8b	<b>Mature forested wetlands</b> . 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
9a	<b>Lake Erie coastal and tributary wetlands</b> . 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 NO Go to Question 9b 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 9d
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 NO Go to Question 9d Go to Question 9d
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
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
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
11	<b>Relict Wet Prairies</b> . 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, Erie County, and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating

#### Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex buxbaumii Carex pellita Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

#### Wetland 03a,b



### Wetland 03a,b

	SLIVIOU	ton Station	Rater(s): BL (A	ECOM)		Date:	09/02/202
					Field Id:	-	
	27.5				w-bl-20191220-02		
	subtotal this	4					
0	27.5	Metric 5. Spe	cial Wetlands.				
x 10 pts.	subtotal	Check all that a	pply and score as inc	licated.			
		Bog (10)					
		Fen (10)					
		Old growth forest (10) Mature forested wetla					
			utary wetland-unrestricted hy	drology (10)			
			utary wetland-restricted hydro				
			ies (Oak Openings) (10)				
		Relict Wet Praires (10	,				
			ate/federal threatened or end		ies (10)		
			songbird/water fowl habitat o See Question 5 Qualitative F				
1	28.5				ion, microtopography.		
		1	•	•			
k 20pts.	subtotal	-	etation Communities		Vegetation Community Co Absent or comprises <0.1ha (0.247		
		Score all present usin	g 0 to 3 scale.		Present and either comprises small		
		1 Emergent			vegetation and is of moderate qualit	•	
		0 Shrub			significant part but is of low quality		
		Forest		2	Present and either comprises signifi	icant part of wetland's 2	
		Mudflats			vegetation and is of moderate qualit	ty or comprises a small	
		Open water			part and is of high quality		
		Other 6b. horizontal (plan	view) Intereperation	3	Present and comprises significant p vegetation and is of high quality	part, or more, of wetland's	3
		Select only one.	view) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation	on Quality	
		Moderately high(4)			Low spp diversity and/or predomina	ince of nonnative or low	
		Moderate (3)			disturbance tolerant native species		
		x Moderately low (2)			Native spp are dominant componen		
		Low (1) None (0)			although nonnative and/or disturban can also be present, and species div		
		6c. Coverage of inva	sive plants. Refer		moderately high, but generallyw/o p	•	
		Table 1 ORAM long for	-		threatened or endangered spp to		
		or deduct points for co	overage		A predominance of native species, v	with nonnative spp high	
		Extensive >75% cove			and/or disturbance tolerant native sp	•••••••	
		x Moderate 25-75% cov			absent, and high spp diversity and c	• •	
		Sparse 5-25% cover Nearly absent <5% co			the presence of rare, threatened, or	r endangered spp	
		Absent (1)			Mudflat and Open Water Class Qu	uality	
		6d. Microtopography	<i>ı</i> .	0	Absent <0.1ha (0.247 acres)		
		Score all present usin		1	Low 0.1 to <1ha (0.247 to 2.47 acre	es)	
		1 Vegetated hummucks			Moderate 1 to <4ha (2.47 to 9.88 ac	cres)	
		0 Coarse woody debris		3	High 4ha (9.88 acres) or more		
		0 Standing dead >25cm			Nierotopography Cover Pasta		
		0 Amphibian breeding p	loois	n	Microtopography Cover Scale Absent		
				- 1	Present very small amounts or if mo	ore common	
				·	of marginal quality		
				2	of marginal quality Present in moderate amounts, but n	not of highest	
ategory 1				2		-	

and of highest quality

# Wetland 03a.b

# **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.	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	2	
	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	9.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	1	
	TOTAL SCORE Consult most recent score calibration report at		Category based on score breakpoints
	http://www.epa.ohio.gov/dsw/401/index.aspx to determine the wetland's category based on its quantitative score	28.5	Category 1

Complete 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		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?	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 an quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> 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	≥	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.



# End of Ohio Rapid Assessment Method for Wetlands.



**APPENDIX C** 

**DELINEATED WETLANDS PHOTOGRAPHS** 

# AECOM Imagine it. Delivered.

# PHOTOGRAPHIC RECORD **WETLANDS**

**Client Name:** 

AEP

# Site Location:

West Moulton Station Expansion Project Addendum

Project No. 60567997





# Wetland 03a

Date:

September 2, 2021

**Description:** 

PEM wetland

Category 1

Facing East



# AECOM Imagine it. Delivered.

# PHOTOGRAPHIC RECORD **WETLANDS**

**Client Name:** 

AEP

# Site Location:

West Moulton Station Expansion Project Addendum

Project No. 60567997





### AECOM Imagine it. Delivered.

# PHOTOGRAPHIC RECORD WETLANDS

**Client Name:** 

#### AEP

## Site Location:

West Moulton Station Expansion Project Addendum

Project No. 60567997

# Wetland 03a

Date:

September 2, 2021

Description:

PEM wetland

Category 1

Facing Soil Pit

