Construction Notice For the West Millersport Station Expansion Project



Case No. 19-0798-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.

April 24, 2019

CONSTRUCTION NOTICE

AEP Ohio Transmission Company, Inc.'s West Millersport Station Expansion Project

4906-6-05

AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco") provides the following information to the Ohio Power Siting Board ("OPSB") pursuant to Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

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

AEP Ohio Transco proposes the West Millersport Station Expansion Project ("Project"), located in Walnut Township, Fairfield County, Ohio. The purpose of this Project is to expand the West Millersport Station by no more than 20% to add equipment and infrastructure that will bring the station up to current standards to satisfy resiliency, operational performance, safety, and NERC reliability standards. The Project will be constructed on existing AEP Ohio property. Appendix A shows the location of the Project.

The Project meets the requirements for a Construction Notice ("CN") because it is within the types of projects defined by (1)(a) of Appendix A to Ohio Adm. Code 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

- 4. Constructing additions to existing electric power transmission stations or converting distribution stations to transmission stations where:
 - (a) There is a twenty percent or less expansion of the fenced area.

The Project has been assigned PUCO Case No. 19-0798-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.

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

Because this Project results in no operational, modeling, or topology change, the Project will not be included in the PJM Regional Transmission Expansion Plan. PJM is, however, aware of the Project and has been consulted regarding it. This Project is also not included in Form FE-T10 of AEP Ohio's or AEP Ohio Transco's 2019 Long-Term Forecast Reports because Bixby Station is an existing substation. West Millersport Station was included as an existing substation in AEP Ohio's 2019 Form FE-T8, on pages 83-84 of 139.

B(3) Project Location

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

This Project is located in Walnut Township, Fairfield County, Ohio. Appendix A shows the location of the Project in relation to existing assets.

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.

There were no other alternatives considered for this Project. Based on the scope of the project, the minimal change to the existing station fence, and the location of the Project on existing AEP Ohio property, it was not reasonable to study other alternatives. The resulting fence change represents the most suitable and least-impactful alternative.

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 entire construction of the station expansion will be on the existing station property. Therefore, there are no affected property owners that AEP Ohio Transco is required to inform. AEP Ohio Transco maintains a website (http://aeptransmission.com/ohio/) on which an electronic copy of this CN is available. A paper copy of the CN will be served to the public library in each political subdivision affected by this Project.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in the third or fourth quarter of 2019, and the anticipated in-service date will be approximately April 2020.

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.

Appendix A, Figure 1 provides a topographical map of existing and proposed facilities at 1:24,000, and Figure 2 provides an aerial image showing roads and highways, clearly marked with Project components.

From Columbus, get on I-70E/I-71 N. Continue onto I-70 E, follow signs for I-70E/Wheeling (22 mi). Take exit 122 for OH-158 towards Kirkersville/Baltimore (0.2mi). Continue onto OH-158S/Baltimore Rd SW (2.9 mi). Turn left onto OH-204 E (2.1 mi). Turn right onto OH-37 E (0.8mi). The Project area will be on your right.

B(8) Property Agreements

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

The Project is located on property owned by AEP Ohio. No other property easements, options, or land use agreements are necessary to construct the Project or operate the substation.

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.

West Millersport's operating characteristics will not change as a result of this Project, no additional structures will be constructed, and there are no additional right-of-way or land requirements.

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 \$5,530,000 using a Class 3 estimate.

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.

The Project is located within AEP Ohio property in Walnut Township, Fairfield County, Ohio. The Fairfield County Auditor lists the land use of this area as "830 Comm LD& Impro Owned by Public Utility". No tree clearing is anticipated to be required for the Project. No environmental or cultural

resources are expected to be impacted as a result of this Project. There are no parks, churches, cemeteries, wildlife management areas, or nature preserve lands within 1,000 feet of the Project.

B(10)(b) Agricultural Land Information

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

The Project area is on AEP Ohio property, with surrounding agricultural land. It is noted on the Fairfield County Auditor site that the parcel is for commercial use and public utility use. The Project will be completely within the parcel owned by AEP Ohio. There are no impacts to agricultural district lands.

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.

A cultural report was completed and will be coordinated directly with the OPSB.

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.

Coordination with the State Historic Preservation Office, United States Fish and Wildlife Service ("USFWS"), and the Ohio Department of Natural Resources ("ODNR") has been completed and coordination letters can be found in Appendix C.

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

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

AEP Ohio Transco has coordinated with USFWS and ODNR regarding special status species within the vicinity of the Project. No impacts are expected to such species as a result of this Project. Copies of the coordination letters are included as Appendix C.

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.

An Ecological Resources Inventory Report was completed by AEP Ohio Transco's consultants within the Project Area and is included as Appendix B. There are no streams impacted by the proposed Project. No wetland impacts are expected to occur.

B(10)(g) Unusual Conditions

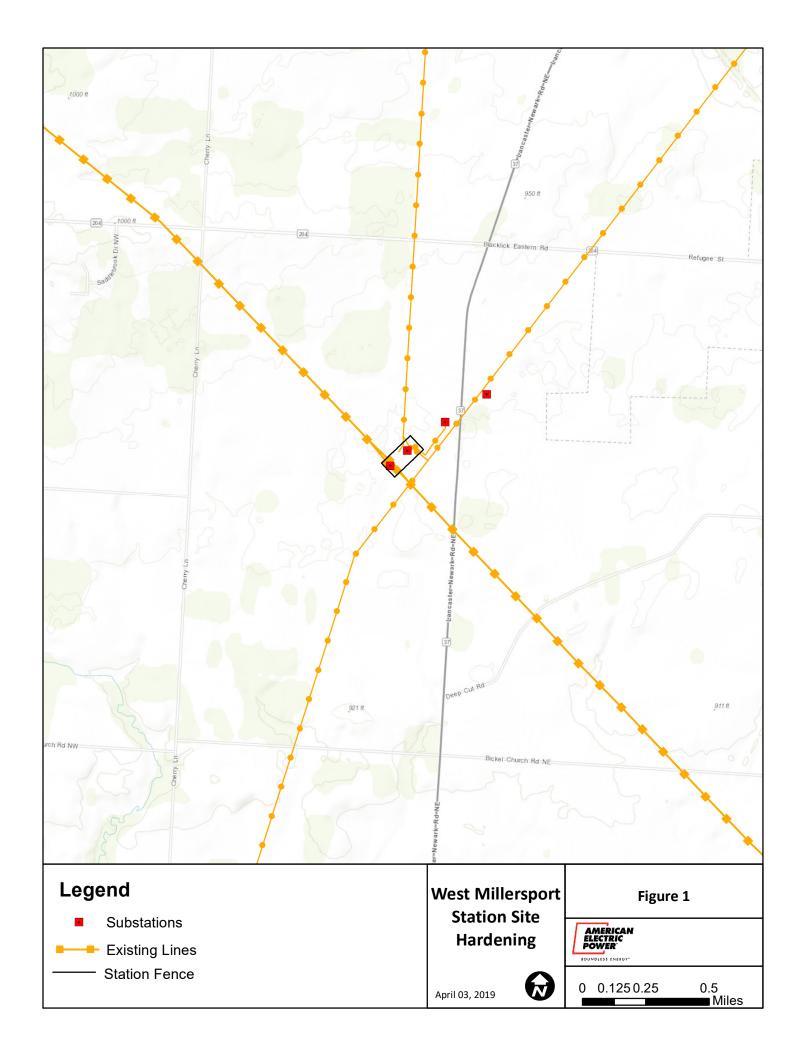
Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

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

APPENDIX A

Figure 1

Figure 2





Existing Lines

Existing Fence Line

Areas Where Existing Fence is Moving Out

Hardening

8

75 150

300 Feet

April 03, 2019

Appendix B Ecological Resources Inventory Report

West Millersport Station Expansion Project, Fairfield County, Ohio

Ecological Resources Inventory Report



Prepared for: AEP Ohio Transmission Company, Inc. 700 Morrison Road Gahanna, Ohio 43230

Prepared by: Stantec Consulting Services Inc. 11687 Lebanon Road Cincinnati, Ohio 45241

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1.0 Introduction

AEP Ohio Transmission Company, Inc. (AEP) is proposing to expand the existing West Millersport 765 kV substation (West Millersport Station) and to potentially relocate associated transmission lines in Fairfield County, Ohio (Figure 1, Appendix A). The Project area includes the existing station pad and adjacent areas where substation expansion and/or transmission line relocation work may occur. The Project area was surveyed for wetlands, waterbodies, open water features, upland drainage features, and potential threatened, endangered, and rare species habitat by Stantec Consulting Services Inc. (Stantec) biologists on September 26, 2017. The approximate locations of features located up to 50 feet outside of the Project area were also recorded during the field surveys, where landowner access was permitted. However, no data forms were collected on features that did not extend into the Project area. These features are shown on the Figure 2 maps in Appendix A as "approximate" wetland, stream (waterway), open water, and upland drainage features.



2.0 Methods

2.1 WETLAND DELINEATION

Prior to completing the field surveys, a desktop review of the Project area was conducted using U.S. Geological Survey (USGS) topographic mapping, National Wetlands Inventory (NWI) maps, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil surveys, and aerial imagery mapping. Stantec completed a wetland delineation study in accordance with the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (USACE 2010). Wetland categories were classified using the Ohio Rapid Assessment Method (ORAM) for Wetlands Version 5.0 (Mack 2001).

2.2 STREAM DELINEATION

Streams that demonstrated a continuously defined channel (bed and bank), ordinary high water mark (OHWM), and the disturbance of terrestrial vegetation were delineated within the Project area, per the protocols outlined in the USACE's Guidance on Ordinary High Water Mark Identification (Regulatory Guidance Letter, No. 05-05) (USACE 2005). Delineated streams were classified as ephemeral, intermittent, or perennial per definitions in the Federal Register/Vol. 67, No. 10 (USACE 2002). Functional assessment of streams within the Project area was based on completion of the Ohio Environmental Protection Agency's (OEPA) Headwater Habitat Evaluation Index (HHEI; OEPA 2012) and/or Qualitative Habitat Evaluation Index (QHEI; OEPA 2006). The centerline of each waterway was identified and surveyed using a handheld sub-meter accuracy global positioning system (GPS) unit and mapped with geographic information system (GIS) software. Additionally, the locations of ponds/open water features and upland drainage features (which lacked a continuously defined bed and bank/OHWM) identified within the Project area were also recorded with a sub-meter accuracy GPS unit during the field surveys.

2.3 RARE SPECIES

Prior to conducting the field surveys, Stantec contacted the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) for information regarding rare, threatened, or endangered species and their habitats of concern within the vicinity of the Project area (Appendix B – Agency Correspondence). To assess potential impacts to rare, threatened, or endangered species, Stantec scientists conducted a pedestrian reconnaissance of the proposed Project area, collected information on existing habitats within the Project area, and assessed the potential for these habitats to be used by these species.



3.0 Results

3.1 TERRESTRIAL HABITAT

Stantec completed field surveys within the Project area on September 26, 2017 for wetlands, waterbodies, and threatened and endangered species or their habitats. Figure 2 (Appendix A) shows the wetlands and waterbodies identified by Stantec within the Project area, as well as the locations of open waters and upland drainage features identified within the Project area. Figure 3 (Appendix A) shows the habitats and locations of any identified rare, threatened or endangered species observed within the Project area. Representative photographs of the wetlands, streams, upland drainage features, and other habitats identified within the Project area are included in Appendix C of this report (photo locations are shown on Figures 2 and 3, Appendix A). Completed wetland determination, ORAM, and HHEI data forms are included in Appendix D.

Table 1. Vegetation Communities and Land Cover Found within the West Millersport Station Expansion Project Area, Fairfield County, Ohio

Vegetation Communities and Land Cover Types within Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
Agricultural Field	Extreme Disturbance/Ruderal Community (dominated by planted non-native row crop species, opportunistic invaders, and/or native highly tolerant taxa).	No	41.2
Industrial	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders, planted non- native species, and/or native highly tolerant taxa).	No	8.0
Old Field	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders and/or native highly tolerant taxa).	No	4.4
Early Successional Deciduous Forest	Moderate Disturbance/Natural Community (dominated by native woody and herbaceous species and/or opportunistic invaders).	No	2.3
Mixed Early Successional/Second Growth Deciduous Forest	Moderate Disturbance/Natural Community (dominated by native woody and herbaceous species and/or opportunistic invaders).	No	1.1
New Field	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders and/or native highly tolerant taxa).	No	0.9



Vegetation Communities and Land Cover Types within Project Area	Degree of Human-Related Ecological Disturbance	Unique, Rare, or High Quality?	Approximate Acreage Within Project Area
Palustrine Emergent Wetland	Moderate Disturbance/Natural Community (dominated by native herbaceous species and/or opportunistic invaders).	No	1.1
Existing Paved Road	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders and/or native highly tolerant taxa).	No	0.4
Existing Gravel Road	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders and/or native highly tolerant taxa).	No	0.6
		Total	60.0

3.2 WETLANDS

Stantec completed field surveys for wetlands within the Project area on September 26, 2017. Figure 2 (Appendix A) shows the wetlands identified by Stantec within the Project area. Representative wetland photographs are included in Appendix C of this report (photo locations are shown on Figure 2, Appendix A). Completed wetland determination and ORAM data forms are included in Appendix D. Information regarding the Cowardin classification and ORAM categories of wetlands is provided in Table 2.

Table 2. Summary of Wetland Resources Found within the West Millersport Station Expansion Project Area, Fairfield County, Ohio

Wetland Name	Photo Location Number ¹	Isolated?	Wetland Classification ²	ORAM Score ⁴	ORAM Category ⁴	Delineated Area (acres) within Project Area
Wetland 1	1	No	PEM ³	15	1	0.89
Wetland 2	2	No	PEM ³	14	1	0.13
Wetland 3	4	No	PEM ³	25.5	1	0.08
					TOTAL	1.10

¹ Appendix C – Representative Photographs



² Wetland classification is based on Cowardin et al. (1979).

³ PEM = Palustrine Emergent Wetland

⁴ORAM Score and Category are based on the Ohio Rapid Assessment Method for Wetlands v. 5.0 (Mack 2001).

3.3 STREAMS

Stantec completed field surveys for streams within the Project area on September 26, 2017. Figure 2 (Appendix A) shows the stream identified by Stantec within the Project area, as well as the locations of non-jurisdictional upland drainage features identified within the Project area. Representative photographs of the stream and upland drainage features are included in Appendix C of this report (photo locations are shown on Figure 2, Appendix A). A completed HHEI data form is included in Appendix D. Information regarding the stream identified within the Project area is provided in Table 3.

Table 3. Summary of Stream Resources Found within the West Millersport Station Expansion Project Area, Fairfield County, Ohio

Stream Name	Photo Location Number ¹	Receiving Waters	<u> </u>		Stream Evaluation Score	OHWM Width (feet) ³	Delineated Length (feet) within Project Area
Stream 1	5	PawPaw Creek	Intermittent	HHEI	35	6.8	1,612
						TOTAL	1,612

¹Appendix C – Representative Photographs as shown on Figure 2 (Appendix A)

3.4 OPEN WATER FEATURES

One approximately 0.05-acre open water feature, Open Water 1, was identified within the Project area. Representative photographs of the open water feature are included in Appendix C of this report (photo locations are shown on Figure 2, Appendix A).



² Stream classification is based on Federal Register/Vol. 67, No. 10 (USACE 2002)

³ OHWM = Ordinary High Water Mark

3.5 RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Table 4. Summary of Potential Ohio State-Listed Species within the West Millersport Station Expansion Project Area, Fairfield County, Ohio

Common Name	Scientific Name	State Listing ¹	Known to Occur Within Fairfield County?2	Known Within One Mile of Project Area? ³	Habitat Preference	Potential Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations		
	Invertebrates									
Rayed Bean	Villosa fabalis	E	Yes	No	Habitat includes gravel or sandy substrate, especially in areas of thick roots of aquatic plants, increase substrate stability (NatureServe 2017; Parmalee and Bogan 1998). Rayed bean can be associated with shoal or riffle areas, and in shallow, wave-washed areas of glacial lakes. It is generally found in smaller, headwater creeks, but sometimes in larger rivers and open-water bodies. It can occur in shallow riffles or in lakes with water depths up to four feet. It has been found in riffles, generally in vegetation, and deeply buried in sand and gravel bound together by roots (Parmalee and Bogan 1998).	No	No suitable habitat was observed within the Project area. Additionally, no in-water work is proposed by AEP. Therefore, no impacts are anticipated.	No comments.		
					Mammals					
Indiana bat	Myotis sodalis	E	Yes	No	The Indiana bat is likely distributed over the entire State of Ohio, though not uniformly. This species generally forages in openings and edge habitats within upland and floodplain forest, but they also forage over old fields and pastures (Brack et al. 2010). Natural roost structures include trees (live or dead) with exfoliating bark, and exposure to solar radiation. Other important factors for roost trees include relative location to other trees, a permanent water source and foraging areas; Dead trees are preferred as maternity roosts; however, live trees are often used as secondary roosts depending on microclimate conditions (USFWS 2007; USFWS 2017b). Roosts have also occasionally been found to consist of cracks and hollows in trees, utility poles, buildings, and bat boxes. Primarily use caves for hibernacula, although are also known to hibernate in abandoned underground mines (Brack et al. 2010).	Yes	No suitable winter hibernacula were observed in the Project area. However, suitable summer roost habitat was observed in the Project area. AEP intends to avoid areas with summer roost habitat to the extent possible. AEP will determine if any summer tree clearing is necessary in areas containing suitable roost habitat and will proceed accordingly.	If suitable habitat occurs within the Project area, the DOW recommends trees be conserved. If suitable habitat occurs within the Project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. If no tree removal is proposed, this Project is not likely to impact this species.		
Allegheny Woodrat	Neotoma magister	E	Yes	No	Throughout its range, this species is associated with extensive rocky areas such as outcrops, cliffs, talus slopes with boulders and crevices, and caves. It occasionally uses abandoned buildings but generally avoids humans. It generally occurs at higher elevations (to about 1000 m) and is rarely found in lowlands or open areas (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.		
Black Bear	Ursus americanus	E	Yes	No	Uses a wide variety of heavily wooded habitats, ranging from swamps and wetlands to dry upland hardwood and coniferous forests. Although they will utilize open areas, black bears prefer wooded cover with a dense understory (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	Due to the mobility of this species, this Project is not likely to impact this species.		
Eastern Harvest Mouse	Reithrodontomys humulis	Т	Yes	No	Prefers old fields, marshes, and wet meadows. Climbs among herbaceous vegetation. Nests are placed in tangled vegetation under debris or above ground (NatureServe 2017).	Yes	Suitable habitat (old fields) was observed within the Project area. However, this species is not known to occur within a mile of the Project.	No comments.		



Common Name	Scientific Name	State Listing ¹	Known to Occur Within Fairfield County?2	Known Within One Mile of Project Area? ³	Habitat Preference	Potential Habitat Observed in Project Area?	Impact Assessment	ODNR Comments/Recommendations
Reptiles and Amphibians								
Eastern Hellbender	Cryptobranchus alleganiensis alleganiensis	E	Yes	No	Rocky, clear creeks and rivers, usually where there are large shelter rocks. The species prefers cool waters with temperatures usually lower than 20 degrees Celsius. High amounts of instream cover are needed for shelter/reproduction, including large flat rocks or submerged logs (NatureServe 2017).	No	No suitable habitat was observed within the Project area. Therefore, no impacts are anticipated.	No comments.
Spotted Turtle	Clemmys guttata	Т	Yes	No	This turtle shows a marked preference for the shallow, sluggish waters of ditches, small streams, marshes, bogs, and pond edges, especially where vegetation is abundant. It occasionally wanders away from water and lives in wet woods and meadows (ODNR 2017b).	Yes	Suitable habitat (Stream 1) was observed within the Project area. No in-water work is proposed by AEP. Therefore, no impacts are anticipated.	No comments.
Eastern Massasauga	Sistrurus catenatus catenatus	E	Yes	No	Throughout much of its range in the eastern United States, massasauga rattlesnakes are found in wet prairies, sedge meadows, and early successional fields. Preferred wetland habitats are marshes and fens. They avoid open water and seem to prefer the cover of broad-leafed plants, emergents, and sedges. Natural succession of woody vegetation is a leading cause of recent habitat deterioration throughout its range. Intensive management to retard woody vegetation growth is necessary to maintain suitable habitat conditions. They are a year-round resident, and the young usually go less than .6 miles to establish their own territory (ODNR 2017b).	Yes	Suitable habitat (old fields and early successional deciduous forest) was observed within the Project area. However, this species is not known to occur within a mile of the Project.	Due to the location, type of habitat present at the Project site, and the type of work proposed, this Project is not likely to impact this species.
					Fish			
Popeye Shiner	Notropis ariommus nreatened; SOC = Spec	E	No	No	This fish is found in extremely clear waters in moderate sized streams. These streams usually have slow to moderate flow and many long slow pools (ODNR Division of Wildlife 2017b).	No	No suitable habitat was observed within the Project area. Additionally, no in-water work is proposed by AEP. Therefore, no impacts are anticipated.	If no in-water work is proposed, this Project is not likely to impact this species.

²According to Ohio Department of Natural Resources, State Listed Wildlife Species by County (ODNR 2017a). ³According to Ohio Natural Heritage Program (Appendix B).



Table 5. Summary of Potential Federally-Listed Species within the West Millersport Station Expansion Project Area, Fairfield County, Ohio

Common Name	Scientific Name	Federal Listing ¹	Known to Fairfield County? ²	Habitat Preference	Potential Habitat Observed in Project Area?	Impact Assessment	USFWS Comments/ Recommendations
				Mammals	•		
Indiana Bat	Myotis sodalis	Е	Yes	The Indiana bat is likely distributed over the entire State of Ohio, though not uniformly. This species generally forages in openings and edge habitats within upland and floodplain forest, but they also forage over old fields and pastures (Brack et al. 2010). Natural roost structures include trees (live or dead) with exfoliating bark, and exposure to solar radiation. Other important factors for roost trees include relative location to other trees, a permanent water source and foraging areas; Dead trees are preferred as maternity roosts; however, live trees are often used as secondary roosts depending on microclimate conditions (USFWS 2007; USFWS 2017b). Roosts have also occasionally been found to consist of cracks and hollows in trees, utility poles, buildings, and bat boxes. Primarily use caves for hibernacula, although are also known to hibernate in abandoned underground mines (Brack et al. 2010).	Yes	No suitable winter hibernacula were observed in the Project area. However, suitable summer roost habitat was observed in the Project area. AEP intends to avoid areas with summer roost habitat to the extent possible. AEP will determine if any summer tree clearing is necessary in areas containing suitable roost habitat and will proceed accordingly.	If no caves or abandoned mines are present and trees ≥3 inches cannot be avoided, seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) is recommended to avoid adverse effects to Indiana bats.
Northern Long-eared Bat	Myotis septentrionalis	Т	Yes	The northern long-eared bat is found throughout Ohio. This species generally forages in forested habitat and openings in forested habitat and utilizes cracks, cavities, and loose bark within live and dead trees, as well as buildings as roosting habitat (Brack et al. 2010; USFWS 2016). The species utilizes caves and abandoned mines as winter hibernacula. Various sized caves are used providing they have a constant temperature, high humidity, and little to no air current (Brack et al. 2010).	Yes	No suitable winter hibernacula were observed in the Project area. However, suitable summer roost habitat was observed in the Project area. AEP intends to avoid areas with summer roost habitat to the extent possible. AEP will determine if any summer tree clearing is necessary in areas containing suitable roost habitat and will proceed accordingly.	If no caves or abandoned mines are present and trees ≥3 inches cannot be avoided, seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) is recommended to avoid adverse effects to northern long-eared bats. Incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule.
				Plants			
Running Buffalo Clover	Trifolium stoloniferum	E	Yes	Running buffalo clover habitat most commonly consists of mesic woodland in partial to filtered sunlight, where there is a pattern of moderate periodic disturbance for a prolonged period, such as mowing, trampling, or grazing. It has also been found in a variety of disturbed woodland habitats, floodplains, streambanks, grazed woodlots, cemeteries, lawns, old logging roads, and jeep trails (USFWS 2015).	No	No potentially suitable habitat was observed in the Project area. Therefore, no adverse effects to this species are anticipated.	Due to the Project type, size, and location, the USFWS does not anticipate adverse effects to this species.
				Reptiles			
Eastern Massasauga	Sistrurus catenatus catenatus	Т	Yes	Throughout much of its range in the eastern United States, massasauga rattlesnakes are found in wet prairies, sedge meadows, and early successional fields. Preferred wetland habitats are marshes and fens. They avoid open water and seem to prefer the cover of broad-leafed plants, emergents, and sedges. Natural succession of woody vegetation is a leading cause of recent habitat deterioration throughout its range. Intensive management to retard woody vegetation growth is necessary to maintain suitable habitat conditions. They are a year-round resident, and the young usually go less than .6 miles to establish their own territory (ODNR 2017b).	Yes	Suitable habitat (old fields and early successional deciduous forest) was observed within the Project area. However, this species is not known to occur within a mile of the Project.	Due to the Project type, size, and location, the USFWS does not anticipate adverse effects this species.
_	ed; T=Threatened USFWS (2017a).						



4.0 Conclusions and Recommendations

Stantec conducted a wetland and waterbodies delineation and a preliminary habitat assessment for threatened and endangered species within the Project area on September 26, 2017. During the field surveys, three palustrine emergent (PEM) wetlands totaling approximately 1.1 acres were identified within the Project area. One intermittent stream totaling approximately 1,612 linear feet in length was also delineated within the Project area. See Table 2 for more information regarding the wetland classification and ORAM category and Table 3 for more information regarding the stream identified within the Project area. The information provided by Stantec regarding wetland and stream boundaries is based on an analysis of the wetland and upland conditions present within the Project area at the time of the field work. The delineations were performed by experienced and qualified professionals using regulatory agency-accepted practices and sound professional judgment.

A technical assistance/environmental review request letter was sent to the ODNR-Office of Real Estate on September 14, 2017. A response was received on December 19, 2017 (Appendix B), and stated the Natural Heritage Database had no records of state endangered or threatened plants or animals within a one-mile radius of the Project area. Additionally, they are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, or other protected areas within the Project area. The Project is within the range of the Indiana bat (state-listed endangered) and, if suitable habitat occurs within the Project area, the ODNR-Office of Real Estate response indicated trees should be conserved. If suitable habitat occurs within the Project area and trees must be cut, the ODNR-Office of Real Estate recommends that cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the ODNR-Office of Real Estate recommends a net survey be conducted prior to any cutting. Additionally, the ODNR - Division of Wildlife (DOW) indicated the Project is within the range of the popeye shiner (state-listed endangered), eastern massasauga (state-listed endangered), and black bear (state-listed endangered) as described in Table 2 (Appendix B). No impacts are anticipated to these species.

A technical assistance letter was submitted to the USFWS on September 14, 2017. The USFWS response letter (Appendix B) indicated that any projects within the state of Ohio lie within the range of the Indiana bat and the northern long-eared bat. If caves and mines (potential bat hibernacula) will not be disturbed and tree cutting of trees ≥3 inches diameter at breast height cannot be avoided, seasonal tree clearing (between October 1 and March 31) is recommended to avoid adverse effects to the Indiana and northern long-eared bats. Due to the Project type, size, and location, the USFWS does not anticipate effects to any other federally endangered, threatened, proposed or candidate species. Additionally, the USFWS indicated that there are no federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project area (Appendix B). The USFWS and ODNR recommended to avoid and/or minimize water quality impacts and impacts to high quality fish and wildlife habitat. Natural buffers around streams and wetlands should be preserved to enhance beneficial functions. Best management practices should be utilized to minimize erosion.



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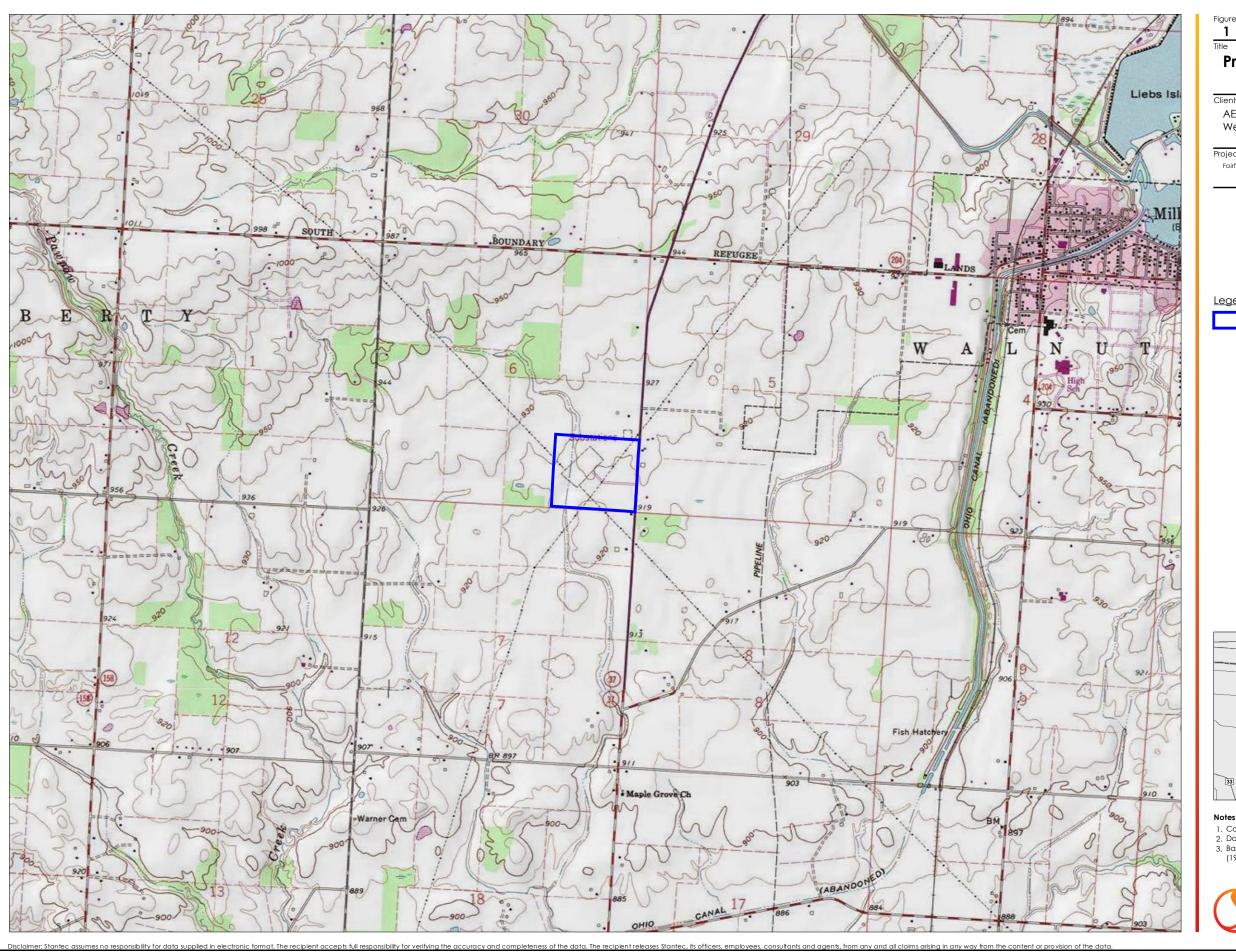
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Appendix A Figures

A.1 FIGURE 1 – PROJECT LOCATION MAP





Project Location Map

Client/Project

AEP Ohio Transmission Company, Inc. West Millersport Station Expansion Project

193705641 Prepared by JLH on 2017-12-21 Technical Review by MT on 2017-12-21 Independent Review by KC on 2018-01-25 Project Location Fairfield County, OH

1,000 2,000

1:24,000 (At original document size of 11x17)



<u>Legend</u>

Project Area (Substation Property)



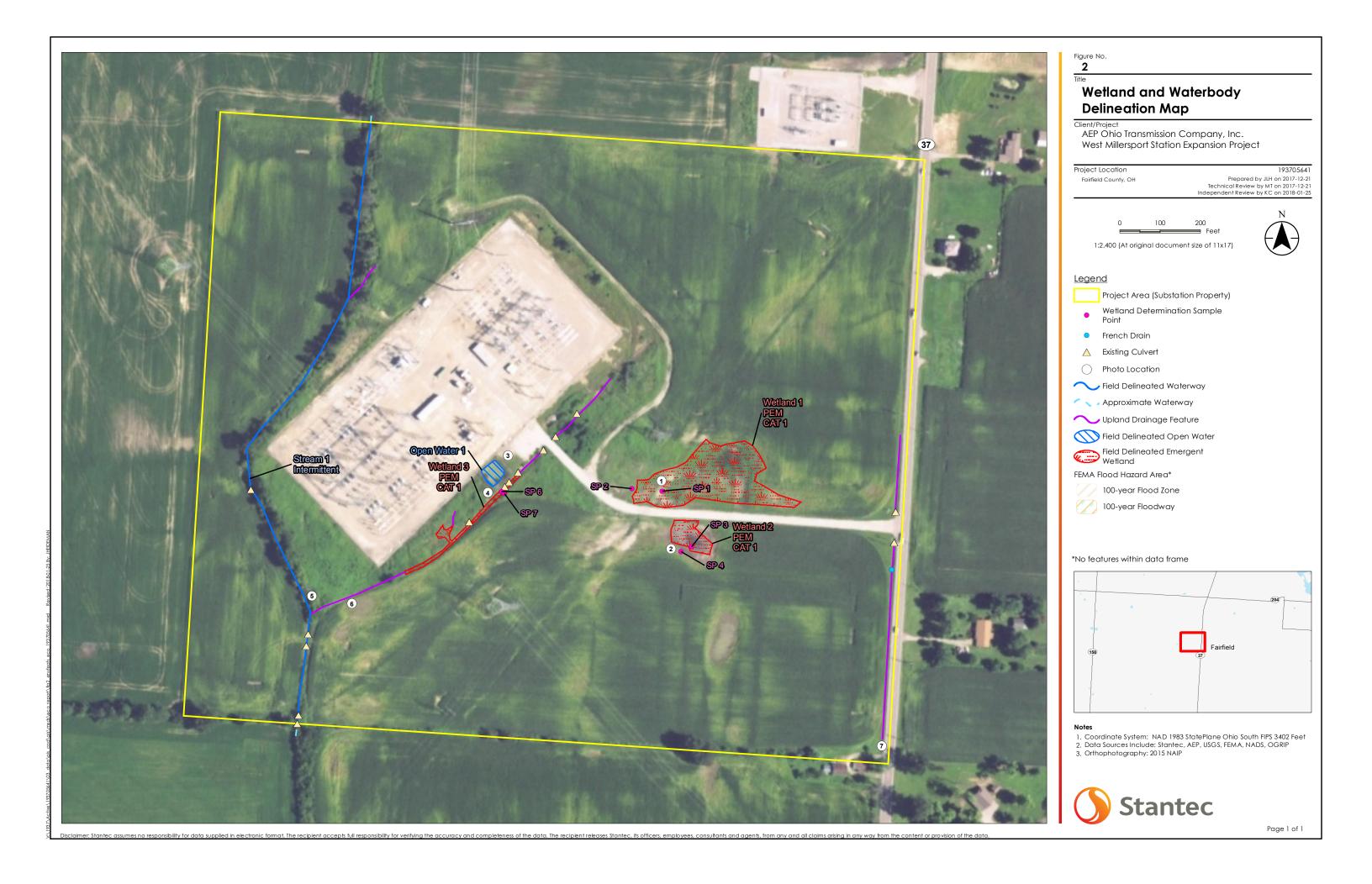
- 1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
 2. Data Sources Include: Stantec, AEP, NADS
 3. Background: USGS 7.5' Topographic Quadrangles Millersport, OH (1983)



Page 1 of 1

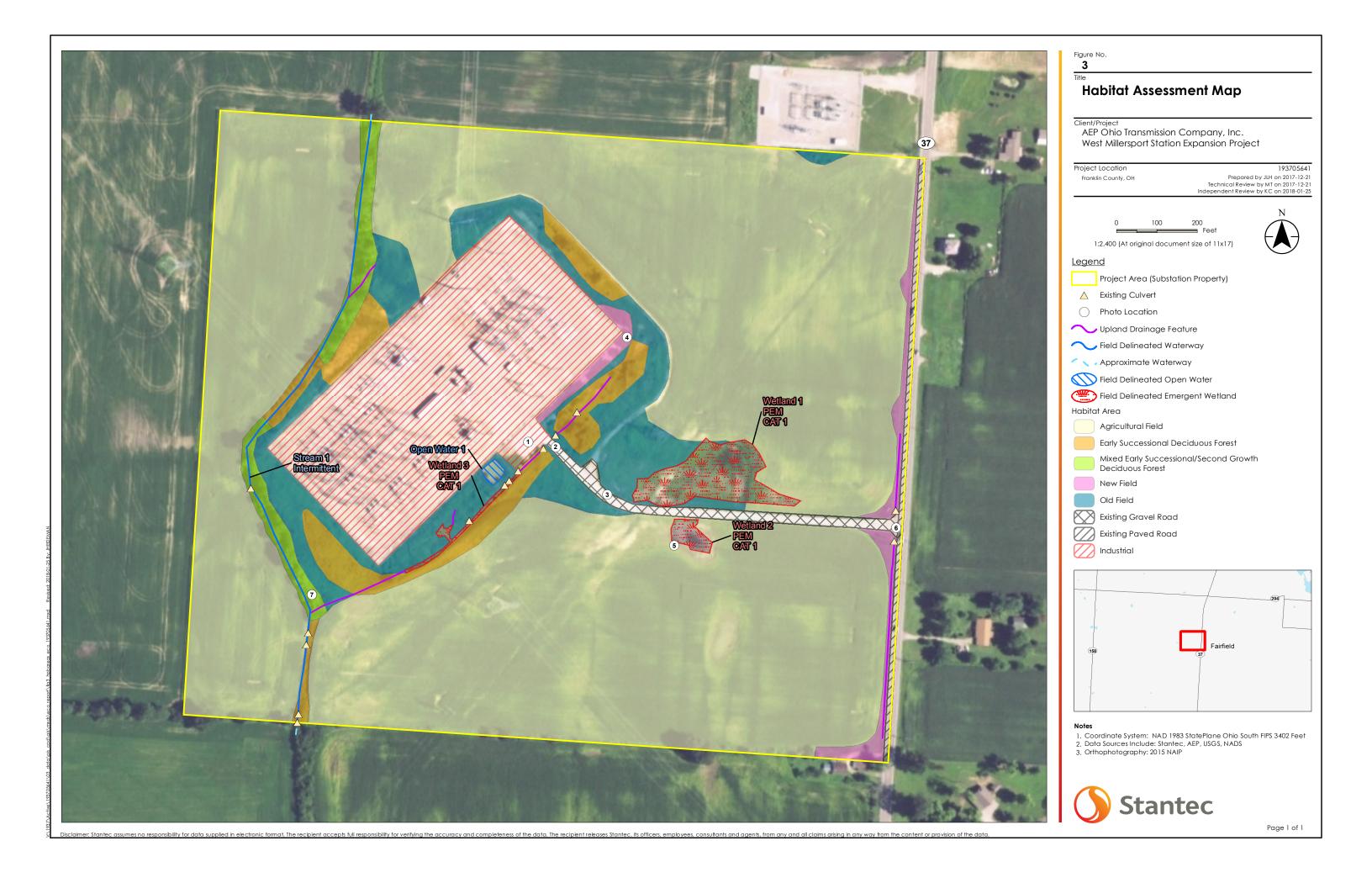
A.2 FIGURE 2 – WETLAND AND WATERBODY DELINEATION MAP





A.3 FIGURE 3 – HABITAT ASSESSMENT MAP





Appendix B Agency Correspondence



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

December 19, 2017

Matt Tiett Stantec 1500 Lake Shore Drive Suite 100 Columbus OH 43204-3800

Re: 17-716; Request for Environmental Review, West Millersport Station Expansion Project

Project: The proposed project involves the expansion of the existing West Millersport 345 kV substation.

Location: The proposed project is in Millersport, Fairfield County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has no records at or within a one-mile radius of the project area.

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

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

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

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

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

The project is within the range of the popeye shiner (*Notropis ariommus*), a state endangered fish. The DOW recommends no in-water work from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, this project is not likely to impact this species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the black bear (*Ursus americanus*), a state endangered species. Due to the mobility of this species, this project is not likely to impact this species.

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

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

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

 $\frac{http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community}{\%20Contact\%20List_8_16.pdf}$

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

Nietz, Jennifer

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>

Sent: Wednesday, September 27, 2017 10:24 AM

To: Teitt, Matthew

Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us

Subject: Stantec No. 193705641 - AEP West Millersport Station Expansion, Fairfield Co. OH



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



TAILS# 03E15000-2017-TA-1988

Dear Mr. Teitt,

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

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

endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

Should the proposed site contain trees ≥ 3 inches dbh, we recommend that trees be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys

are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we recommend that removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see http://www.fws.gov/midwest/endangered/mammals/nleb/index.html), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

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

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

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

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,

Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW

WEST MILLERSPORT STATION EXPANSION PROJECT, FAIRFIELD COUNTY, OHIO

Appendix C Representative Photographs

C.1 FIGURE 2 WETLAND AND WATERBODY PHOTOGRAPHS







Photo Location 1. View of Wetland 1. Photograph taken facing north.



Photo Location 1. View of Wetland 1. Photograph taken facing east.





Photo Location 1. View of Wetland 1. Photograph taken facing south.



Photo Location 1. View of Wetland 1. Photograph taken facing west.





Photo Location 2. View of Wetland 2. Photograph taken facing north.



Photo Location 2. View of Wetland 2. Photograph taken facing east.





Photo Location 2. View of Wetland 2. Photograph taken facing south.



Photo Location 2. View of Wetland 2. Photograph taken facing west.





Photo Location 3. View of Open Water 1. Photograph taken facing north.



Photo Location 4. View of Wetland 3. Photograph taken facing north.





Photo Location 4. View of Wetland 3. Photograph taken facing east.



Photo Location 4. View of Wetland 3. Photograph taken facing south.





Photo Location 4. View of Wetland 3. Photograph taken facing west.



Photo Location 5. View of Stream 1. Photograph taken facing upstream/northwest.





Photo Location 5. View of Stream 1. Photograph taken facing downstream/southeast.



Photo Location 6. Representative view of vegetated upland drainage feature. Photograph taken facing northeast.





Photo Location 7. Representative view of upland drainage feature. Photograph taken facing north.

WEST MILLERSPORT STATION EXPANSION PROJECT, FAIRFIELD COUNTY, OHIO

C.2 FIGURE 3 HABITAT PHOTOGRAPHS







Photo Location 1. Representative view of industrial habitat. Photograph taken facing northwest.



Photo Location 2. Representative view of early successional deciduous forest habitat.

Photograph taken facing southwest.





Photo Location 3. Representative view of old field habitat. Photograph taken facing west.



Photo Location 4. Representative view of new field habitat. Photograph taken facing southwest.





Photo Location 5. Representative view of agricultural field habitat (in background).

Photograph taken facing west.



Photo Location 6. View of gravel access road. Photograph taken facing west.





Photo Location 7. View of mixed early successional/second growth deciduous forest along Stream 1. Photograph taken facing northwest.

WEST MILLERSPORT STATION EXPANSION PROJECT, FAIRFIELD COUNTY, OHIO

Appendix D Data Forms

D.1 WETLAND DETERMINATION DATA FORMS





Project/Site:	West Millers	sport Station / W01					Stantec Project #:	193705641		Date:	09/26/17
Applicant:	AEP					=				County:	Fairfield
Investigator #1:		no silty clay loam		Investi	gator #2:		mar /I/WWI Classification:	DEMAA		State:	OH Watland 1
Soil Unit: Landform:	Pe - Pewam Depression	io siity ciay ioam		Loo	al Relief:			PEMIA		Wetland ID: Sample Point:	Wetland 1 SP 1
Slope (%):	1	Latitude:	39.89		ongitude:			Datum:	NAD83	Community ID:	pem
		itions on the site ty						X Yes	No	Section:	6
		or Hydrology X sig				(п по, охра	Are normal circumsta			Township:	16N
		or Hydrology na					X Yes	No	· ·	Range:	18W
SUMMARY OF	FINDINGS	, 0,	, ,							Ü	
Hydrophytic Veg	getation Pres	ent?		X Yes	No			Hydric Soils F	Present?		X Yes No
Wetland Hydrol				X Yes	No					Within A Wetlan	
Remarks:		ed PEM1A, w/in act med wetland	ive ag fi	eld (corn); evidend	ce of tillir	g (soils disturbed) (ve	egetation distu	rbed), evid	lence of field tile	(hydrology disturbed);
HYDROLOGY											
		tors (Check here it	findicato	ors are no	ot presen	t 🗌):					
Primary:		N/a4a.			DO 14/-4-	C4=:===			Secondary:	DC Confees Cail o	Canalia
<u> </u>	A1 - Surface V A2 - High Wat			<u> </u>	B9 - Wate B13 - Aqu				X	B6 - Surface Soil (B10 - Drainage Pa	
	A3 - Saturation			i i	B14 - True					B16 - Moss Trim L	
	B1 - Water Ma				C1 - Hydr					C2 - Dry-Season \	
	B2 - Sediment						spheres on Living Roots duced Iron			C8 - Crayfish Burr	ows sible on Aerial Imagery
	B3 - Drift Depo			<u> </u>			duction in Tilled Soils			D1 - Stunted or St	
	B5 - Iron Depo	osits			C7 - Thin					D2 - Geomorphic	Position
		n Visible on Aerial Ima			D9 - Guag					D5 - FAC-Neutral	Test
IX.	B8 - Sparsely	Vegetated Concave S	ыптасе		Other (Ex	piain in Re	marks)				
Field Observat	ione:										
Surface Water I	_	Yes X No	Depth:	0	(in.)					_	_
Water Table Pre		Yes X No	Depth:		(in.)			Wetland Hyd	drology Pr	esent? X	Yes No
Saturation Pres	_	Yes X No	Depth:		(in.)						
		am gauge, monitoring	•		. ,	e inepoeti	one) if available:	nwi-mapped p	om1a		
Remarks:		d tile present	g well, ac	nai prioto	s, previou	3 IIISPECII	ons), ii avallable.	пин-шарреа р	Cilita		
ixemaiks.	possible liel	d tile present									
SOILS											
SOILS Map Unit Name:	Pe - Pewam	no silty clay loam				S	eries Drainage Class:	very poorly d	rained		
Map Unit Name:			indicator or co	nfirm the absen	ce of indicators.		eries Drainage Class: centration, D=Depletion, RM=Reducec			Location: PL=Pore Lining, I	M=Matrix)
Map Unit Name:			indicator or cou	nfirm the absen	ce of indicators.		centration, D=Depletion, RM=Reduced			Location: PL=Pore Lining, I	Texture
Map Unit Name: Profile Descript	tion (Describe to th				ce of indicators.		centration, D=Depletion, RM=Reduced	d Matrix, CS=Covered/Co		Location: PL=Pore Lining, I	
Map Unit Name: Profile Descript Top Depth 0	Bottom Depth 5	e depth needed to document the	Color 2.5Y	Matrix (Moist) 3/3	% 100) (Type: C=Cor	centration, D=Depletion, RM=Reduced Re Color (Moist)	d Matrix, CS=Covered/Co	pated Sand Grains;	Location 	Texture
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Map Unit Name: Profile Descript Top Depth 0 5 14	tion (Describe to the Bottom Depth 5 14 20	e depth needed to document the Horizon	Color 2.5Y 2.5Y 2.5Y	Matrix (Moist) 3/3 3/1 6/2 	% 100 90 60 	10YR 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1	d Matrix, CS=Covered/Cc edox Features % 3 7 20 10 10	Type C C C d	Location pl m m m	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20	e depth needed to document the Horizon	Color 2.5Y 2.5Y 2.5Y	Matrix (Moist) 3/3 3/1 6/2	% 100 90 60	 10YR 2.5Y 2.5Y 2.5Y	centration, D=Depletion, RM=Reducec Re Color (Moist) 3/6 3/3 6/8 5/1	d Matrix, CS=Covered/Cc edox Features % 3 7 20 10	Type C C C d	Location pl m m	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	tion (Describe to the Bottom Depth 5 14 20	e depth needed to document the Horizon	2.5Y 2.5Y 2.5Y 	Matrix (Moist) 3/3 3/1 6/2 	% 100 90 60 	10YR 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1	d Matrix, CS=Covered/Cc edox Features % 3 7 20 10 10	Type C C C d d	Location pl m m m m	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 Soil Field Inc	e depth needed to document the Horizon	2.5Y 2.5Y 2.5Y 	Matrix (Moist) 3/3 3/1 6/2 	% 100 90 60 e not pre	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1);	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble	Location pl m m m matic Soils 1	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 Soil Field Inc. A1- Histosol	Horizon dicators (check he	2.5Y 2.5Y 2.5Y 	Matrix (Moist) 3/3 3/1 6/2 	% 100 90 60 e not pre		Color (Moist) 3/6 3/3 6/8 5/1 2.5/1):	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators	Type C C C d d s for Proble	Location pl m m m m matic Soils Prairie Redox	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 Soil Field Inc	Horizon dicators (check he	2.5Y 2.5Y 2.5Y 	Matrix (Moist) 3/3 3/1 6/2 	% 100 90 60 e not pre S6 - Strip F1 - Loam F2 - Loam	10YR 2.5Y 2.5Y 2.5Y 2.5Y sent ped Matrix by Muck M by Gleyed	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators	Type C C C d d s for Proble A16 - Coast S7 - Dark Si	Location pl m m m m matic Soils Prairie Redox	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	tion (Describe to the Bottom Depth 5 14 20 Soil Field Inc A1- Histosol A2 - Histic Epi A3 - Black His A4 - Hydroger	Horizon dicators (check he ipedon stifc a Sulfide	2.5Y 2.5Y 2.5Y 	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripl F1 - Loam F3 - Deple	10YR 2.5Y 2.5Y 2.5Y 2.5Y sent ped Matrix py Muck M ny Gleyed ted Matrix	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 Soil Field Inc A1- Histosol A2 - Histic Epi A3 - Black His A4 - Hydroger A5 - Stratified	Horizon dicators (check he ipedon still of Sulfide Layers	2.5Y 2.5Y 2.5Y 	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripi F1 - Loam F2 - Loam F3 - Depi6 F6 - Redo	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix :face	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 Soil Field Inc A1 - Histosol A2 - Histic Epi A3 - Black Hist A4 - Hydroger A5 - Stratified A10 - 2 cm Mic Bottom Depth Source Inc A10 - 2 cm Mic A5 - Stratified A10 - 2 cm Mic Bottom Depth Source Inc Bottom Depth Sou	Horizon dicators (check he ipedon this culfide Layers suck	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 Soil Field Inc A1 - Histosol A2 - Histic Epi A3 - Black Hist A4 - Hydroger A5 - Stratified A10 - 2 cm Mic Bottom Depth Source Inc A10 - 2 cm Mic A5 - Stratified A10 - 2 cm Mic Bottom Depth Source Inc Bottom Depth Sou	Horizon dicators (check he ipedon Stic Stulfide Lalyers ack de Below Dark Surface	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripi F1 - Loam F2 - Loam F3 - Depi6 F6 - Redo	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	tion (Describe to the Bottom Depth 5 14 20 5 oil Field Inc A1- Histosol A2 - Histic Epi A4 - Hydroger A5 - Stratified A10 - 2 cm Mt A11 - Deplete A12 - Thick Dt S1 - Sandy Mt	Horizon dicators (check he ipedon stic on Sulfide Layers Jok d Below Dark Surface ark Surface ark Surface uck Mineral	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 5 Soil Field Inc A1 - Histosol A2 - Histic Epi A3 - Black Hist A4 - Hydroger A5 - Stratified A10 - 2 cm Mc A11 - Deplete A12 - Thick D5 1 - Sandy Mc S3 - 5 cm Mc S3 - 5 cm Mc A10 - 5 cm Mc S3 - 5 cm	Horizon dicators (check he ipedon titic n Sulfide Layers uck d Below Dark Surface ark Surface uck Mineral cky Peat or Peat	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14	Horizon dicators (check he ipedon stic n Sulfide Layers uck de Below Dark Surface uck Mineral Sky Peat or Peat eyed Matrix	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	Matrix, CS=Covered/Co Edox Features %	Type C C C d d s for Proble A16 - Coast S7 - Dark S7 T12 - Very	Location pl m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14	bion (Describe to the Bottom Depth 5 14 20 5 Soil Field Inc A1 - Histosol A2 - Histic Epi A3 - Black Hist A4 - Hydroger A5 - Stratified A10 - 2 cm Mc A11 - Deplete A12 - Thick D5 1 - Sandy Mc S3 - 5 cm Mc S3 - 5 cm Mc A10 - 5 cm Mc S3 - 5 cm	Horizon dicators (check he ipedon stic n Sulfide Layers uck de Below Dark Surface uck Mineral Sky Peat or Peat eyed Matrix	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators 1 Indicators of hydr	Type C C C d d s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location pl m m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam sasilo sasilo sicl
Map Unit Name: Profile Descript Top Depth 0 5 14 NRCS Hydric 3	Bottom Depth 5 14 20 Soil Field Inc A1- Histosol A2 - Histic Epi A3 - Black Hist A4 - Hydroger A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy Re	Horizon	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 86 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators ' Indicators of hydridisturb	Type C C C d d s for Proble A16 - Coast S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Location pl m m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam sasilo sasilo sicl ace
Map Unit Name: Profile Descript Top Depth 0 5 14	Bottom Depth 5 14 20 Soil Field Inc A1- Histosol A2 - Histic Epi A3 - Black Hist A4 - Hydroger A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy Re	Horizon dicators (check he ipedon stic n Sulfide Layers uck de Below Dark Surface uck Mineral Sky Peat or Peat eyed Matrix	Color 2.5Y 2.5Y 2.5Y ere if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 86 - Stripl F1 - Loam F2 - Loam F3 - Deple F6 - Redo	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators 1 Indicators of hydr	Type C C C d d s for Proble A16 - Coast S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Location pl m m m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam sasilo sasilo sicl ace
Map Unit Name: Profile Descript Top Depth 0 5 14 NRCS Hydric :	tion (Describe to the Bottom Depth 5 14 20	Horizon dicators (check he ipedon stitc in Sulfide Layers uck do Below Dark Surface ark Surface uck Mineral sky Peat or Peat eyed Matrix edox Type: N/A	Color 2.5Y 2.5Y 2.5Y re if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripi F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix 5/face Surface	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators Indicators of hydr disturb Hydric Soil F	Type C C C d d s for Proble A16 - Coast S7 - Dark St F12 - Iron-M CTF12 - Very Other (Expla	Location pl m m m m matic Soils ¹ Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam sasilo sasilo sicl ace
Map Unit Name: Profile Descript Top Depth 0 5 14 NRCS Hydric S	tion (Describe to the Bottom Depth 5 14 20	Horizon dicators (check he ipedon stitc in Sulfide Layers uck do Below Dark Surface ark Surface uck Mineral sky Peat or Peat eyed Matrix edox Type: N/A	Color 2.5Y 2.5Y 2.5Y re if indi	Matrix (Moist) 3/3 3/1 6/2 cators ar	% 100 90 60 e not pre S6 - Stripi F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	10YR 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y 2.5Y	centration, D=Depletion, RM=Reducec Re Color (Moist) 3/6 3/3 6/8 5/1 2.5/1): neral Matrix is face Surface ions	d Matrix, CS=Covered/Co edox Features % 3 7 20 10 10 Indicators Indicators of hydr disturb Hydric Soil F	Type C C C d d s for Proble A16 - Coast S7 - Dark St F12 - Iron-M CTF12 - Very Other (Expla	Location pl m m m m matic Soils ¹ Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam sasilo sasilo sicl ace



Project/Site: West Millersport Station / W01 Wetland ID: Wetland 1 Sample Point: SP 1

VEGETATION	(Species identified in all uppercase are non-na	ative spec	cies.)		
Tree Stratum (Pl	ot size: 10 meter radius)	1.2.	,		
·	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.					
4.				-	Total Number of Dominant Species Across All Strata: (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
7.				-	
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.				-	OBL spp x 1 =
	Total Cover =	0			FACW spp x 2 =
					FAC spp x 3 =
Sapling/Shrub Str	ratum (Plot size: 5 meter radius)				FACU spp x 4 =
1.					UPL spp x 5 =
2.					
3.					Total (A) (B)
4.					
5.					Prevalence Index = B/A =
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					X Yes No Rapid Test for Hydrophytic Vegetation
10.					Yes No Dominance Test is > 50%
	Total Cover =	0			Yes No Prevalence Index is ≤ 3.0 *
					Yes No Morphological Adaptations (Explain) *
Herb Stratum (Plo	ot size: 2 meter radius)				Yes No Problem Hydrophytic Vegetation (Explain) *
1.	Echinochloa muricata	30	Υ	OBL	* Indicators of hydric soil and wetland hydrology must be
2.	Echinochloa crus-galli	10	N	FACW	present, unless disturbed or problematic.
3.	Xanthium strumarium	15	Υ	FAC	procent, amose distarsed of presidentatio.
4.	Ammannia coccinea	3	N	OBL	Definitions of Vegetation Strata:
5.	Eleocharis palustris	3	N	OBL	
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter
7.					at breast height (DBH), regardless of height.
8.				-	
9.				-	Sapling/Shrub - Woody plants less than 3 in. DBH and greater
10.					than 3.28 ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of
13.				-	size, and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	61			
Woody Vine Strat	tum (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present X Yes No
4.					
5.					
	Total Cover =	0			
Remarks:	disturbed from prior tilling, some barren	ground	l areas pr	esent	
	• •	-	·		

Additional Remarks:

photos: P4-N, P5-E, P6-S, P7-W			



Project/Site:		rsport Station / W01					Stantec Project #:	193705641		Date:	09/26/17
Applicant:	AEP	J		lovosti	~~1~~ 40.	Kata Da				County:	Fairfield
Investigator #1: Soil Unit:		no silty clay loam		investi	gator #2:		mar /I/WWI Classification:	N/A		State: Wetland ID:	OH Wetland 1
Landform:	Side slope	no only olay loan		Loc	al Relief:			14/7		Sample Point:	SP 2
Slope (%):	1 '	Latitude:	39.89	Lo	ongitude:	-82.567	224	Datum:	NAD83	Community ID:	upland
Are climatic/hyd	drologic cond	ditions on the site ty	pical for	this time	of year?	(If no, expl	ain in remarks)	X Yes	No	Section:	6
Are Vegetation			nificantly	y disturbe	ed?		Are normal circumsta	ances presen	t?	Township:	16N
Are Vegetation		or Hydrology na	turally pr	oblemati	c?		X Yes	No		Range:	18W
SUMMARY OF		10		Vas	No.			Lleadain Onile	D		No. No.
Hydrophytic Ve	~			Yes				Hydric Soils		Mithin A Matle	X Yes No
Wetland Hydrol Remarks:			ndary ne	Yes	, 2 .		ker in oldfield area, no			Within A Wetla	nd? Yes X No
HYDROLOGY	арргол го			a. pou o	, p.p.						
_	•	ators (Check here i	if indicat	ors are n	ot preser	nt 🗶):					
<u>Primary</u>	A1 - Surface	Motor			B9 - Wate	r Stainad	Logyog		Secondary:	B6 - Surface Soil	Crooks
	A1 - Surface A2 - High Wa				B13 - Aqu					B10 - Surface Soil	
	A3 - Saturation	on			B14 - Tru	e Aquatic	Plants			B16 - Moss Trim	Lines
	B1 - Water M				C1 - Hydr					C2 - Dry-Season	
	B2 - Sedimer B3 - Drift Dep						spheres on Living Roots educed Iron			C8 - Crayfish Bur C9 - Saturation V	isible on Aerial Imagery
	B4 - Algal Ma	at or Crust					eduction in Tilled Soils			D1 - Stunted or S	
	B5 - Iron Dep				C7 - Thin					D2 - Geomorphic	
		on Visible on Aerial Ima / Vegetated Concave S	-		D9 - Gua Other (Ex	•				D5 - FAC-Neutra	I lest
,		, vogotatou comouvo t	341.400		04.10. (22	prant ii t t	, markey				
Field Observat	ions:										
Surface Water	Present?	Yes X No	Depth:		(in.)			Wetland Hy	drology Pr	resent?	Yes X No
Water Table Pr		Yes X No	Depth:		(in.)			vvetidila riy	arology i i		103 110
Saturation Pres	ent?	Yes X No	Depth:	>18	(in.)						
Describe Record	led Data (stre	eam gauge, monitori	ng well, a	aerial nho	toe provi	oue inene	ctions) if available.				
			,	acriai prio	itos, previ	ous mspe	ctions), ii available.				
Remarks:	possible fie	eld tile present	<u>g</u> , .	acriai prio	ilos, previ	ous mspe	ctions), ii available.				
Remarks:	possible fie			deriai prio	nos, previ	ous mspe	etions), ii available.				
	possible fie			зенаг рно	itos, previ	ous mspe	ections), ii available.				
SOILS	•	eld tile present		денаг рно	itos, previ	·		very poorly o	drained		
SOILS Map Unit Name	· : Pe - Pewar	eld tile present		·		S	eries Drainage Class:			Location: PL=Pore Lining, I	M=Matrix)
SOILS Map Unit Name Profile Descrip	: Pe - Pewar	eld tile present		nfirm the absen	ce of indicators.	S	eries Drainage Class:	Matrix, CS=Covered/Co	oated Sand Grains;	Location: PL=Pore Lining, I	
SOILS Map Unit Name Profile Descrip Top	Pe - Pewartion (Describe to to	eld tile present	indicator or cor	nfirm the absend	ce of indicators.	S	eries Drainage Class: centration, D=Depletion, RM=Reduced Re		oated Sand Grains;	Location: PL=Pore Lining, I	Texture
SOILS Map Unit Name Profile Descrip	: Pe - Pewar	no silty clay loam	indicator or cor	nfirm the absen	ce of indicators.	S	eries Drainage Class:	Matrix, CS=Covered/Co	oated Sand Grains;		Texture
SOILS Map Unit Name Profile Descrip Top Depth	Pe - Pewar tion (Describe to to Bottom Depth	no silty clay loam the depth needed to document the Horizon	indicator or cor	ofirm the absence Matrix (Moist)	ce of indicators.	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re	Matrix, CS=Covered/Codox Features	oated Sand Grains; Type	Location	Texture (e.g. clay, sand, loam)
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewar tion (Describe to to Bottom Depth 10	no silty clay loam the depth needed to document the Horizon	indicator or con	Matrix (Moist) 4/1	ce of indicators.	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Codox Features %	oated Sand Grains; Type	Location 	Texture (e.g. clay, sand, loam) sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewar tion (Describe to to Bottom Depth 10 18	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	ce of indicators.	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Co dox Features % 2	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewar tion (Describe to to Bottom Depth 10 18	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	% 100 98	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Cocdox Features % 2	Type C	Location m 	Texture (e.g. clay, sand, loam) sicllo sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	% 100 98	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Co dox Features % 2	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	% 100 98	 2.5Y 	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Cordox Features % 2	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	% 100 98	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Codox Features % 2	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Pe - Pewar tion (Describe to to Bottom Depth 10 18 Soil Field Ir	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	% 100 98 re not pre	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Codox Features % 2	Type C	Location m matic Soils 1	Texture (e.g. clay, sand, loam) sicllo sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir	the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2	% 100 98 re not pre	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6	Matrix, CS=Covered/Codox Features % 2	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi	no silty clay loam the depth needed to document the Horizon ndicators (check here)	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan	CType: C=Cor 2.5Y esent ped Matrix by Muck M	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 ineral Matrix	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C s for Proble A16 - Coast S7 - Dark Si F12 - Iron-M	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple	S (Type: C=Cor	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :inneral Matrix	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified	no silty clay loam the depth needed to document the Horizon adicators (check here) cipedon estic en Sulfide d Layers	Color 2.5Y 2.5Y	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo	CType: C=Cor 2.5Y esent cod Matrix by Muck M by Gleyed eted Matrix by Dark Su	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: lineral Matrix Kurface	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M	no silty clay loam the depth needed to document the Horizon adicators (check here) cipedon estic en Sulfide d Layers	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple	CType: C=Cor 2.5Y esent ped Matrix by Muck M by Gleyed eted Matrix by Dark Su eted Dark	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick D	Horizon Horizon Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo	CType: C=Cor 2.5Y esent ped Matrix by Muck M by Gleyed eted Matrix by Dark Su eted Dark	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo	CType: C=Cor 2.5Y esent ped Matrix by Muck M by Gleyed eted Matrix by Dark Su eted Dark	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo	CType: C=Cor 2.5Y esent ped Matrix by Muck M by Gleyed eted Matrix by Dark Su eted Dark	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo	CType: C=Cor 2.5Y	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator	Type C s for Proble A16 - Coast S7 - Dark Si F12 - Iron-M TF12 - Very Other (Expla	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo sface
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A1- Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo	CType: C=Cor 2.5Y	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator Indicator Indicators of hyd	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo s
SOILS Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo F7 - Deple F8 - Redo	CType: C=Cor 2.5Y	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator Indicator Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo sface
SOILS Map Unit Name Profile Descrip Top Depth 0 10 NRCS Hydric Restrictive Laye (If Observed)	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo F7 - Deple F8 - Redo	CType: C=Cor 2.5Y	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator Indicator Indicators of hyd	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo sface
SOILS Map Unit Name Profile Descrip Top Depth 0 10 NRCS Hydric	Bottom Depth 10 18 Soil Field Ir A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	no silty clay loam the depth needed to document the Horizon	color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/1 4/2 icators a	% 100 98 re not pre S6 - Strip F1 - Loan F2 - Loan F3 - Deple F6 - Redo F7 - Deple F8 - Redo	CType: C=Cor 2.5Y	eries Drainage Class: centration, D=Depletion, RM=Reduced Re Color (Moist) 6/6 :: ineral Matrix curface Surface Surface	Matrix, CS=Covered/Codox Features % 2 Indicator Indicator Indicator	Type C	Location m	Texture (e.g. clay, sand, loam) sicllo sicllo sface



Project/Site: West Millersport Station / W01 Wetland 1 Sample Point: SP 2

VEGETATION (Species identified in all uppercase are non-native species.)

VEGETATION	(Species identified in all uppercase are non-na	tive spe	cies.)		
Tree Stratum (Plo	t size: 10 meter radius)				
,	<u>Species Name</u>	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.					
4.					Total Number of Dominant Species Across All Strata:5(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7.					Durana la va da a Manda da a Manda da a 4
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.	Total Covers				OBL spp. 0 x 1 = 0
	Total Cover =	0			FACW spp. 0 x 2 = 0 FAC spp. 32 x 3 = 96 FACU spp. 45 x 4 = 180
Caralina (Charah Cha	ture (Diet einer Europeanschine)				FAC spp. 32 x 3 = 96
Sapiing/Shrub Stra	tum (Plot size: 5 meter radius)				FACU spp. $\frac{45}{3}$ $x = \frac{180}{15}$ UPL spp. $\frac{3}{3}$ $x = \frac{15}{15}$
2.	_ 				UPL spp. 3 x 5 = 15
3.					Total 90 (A) 201 (B)
4.	<u></u>				Total <u>80</u> (A) <u>291</u> (B)
5.	_ 				Prevalence Index = B/A = 3.638
6.					Trevalence index = B/A = 3.000
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes X No Rapid Test for Hydrophytic Vegetation
10.					Yes X No Dominance Test is > 50%
10.	Total Cover =	0			Yes X No Prevalence Index is ≤ 3.0 *
	10101 00101	Ŭ			Yes X No Morphological Adaptations (Explain) *
Herb Stratum (Plot	: size: 2 meter radius)				Yes X No Problem Hydrophytic Vegetation (Explain) *
1.	Symphyotrichum pilosum	15	Υ	FACU	
2.	Setaria pumila	15	 Y	FAC	* Indicators of hydric soil and wetland hydrology must be
3.	Setaria faberi	10	· Y	FACU	present, unless disturbed or problematic.
4.	Solidago canadensis	5	N	FACU	Definitions of Vegetation Strata:
5.	Xanthium strumarium	5	N	FAC	
6	Cirsium arvense	10	Υ	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter
7.	Daucus carota	3	N	UPL	at breast height (DBH), regardless of height.
8.	Asclepias syriaca	5	N	FACU	
9.	Ambrosia trifida	10	Υ	FAC	Sapling/Shrub - Woody plants less than 3 in. DBH and greater
10.	Vernonia gigantea	2	N	FAC	than 3.28 ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of
13.					size, and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	80			
		-			
Woody Vine Stratu	m (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present Yes X No
4.					
5.					
	Total Cover =	0			
Remarks:					

Additional Remarks:

Ī	photo: P8-E				



Are Vegetation	AEP Bill Leopold Pe - Pewar Depression 0 drologic cond X, Soil X, , Soil ,	no silty clay loam Latitude: ditions on the site ty or Hydrology x sig or Hydrology nat	39.89 pical for nificantly	Loc Lo this time disturbe	ed? c?	NW Concav -82.566 (If no, expla	I/WWI Classification: e 695	Datum:		Date: County: State: Wetland ID: Sample Point: Community ID: Section: Township: Range:	09/26/17 Fairfield OH Wetland 2 SP 3 pem 6 16N 18W	No
Wetland Hydrol				X Yes						Within A Wetlan	nd? X Yes	No
Remarks:	w/in farm fi	eld; evidence of tillii	ng (vege	etation dis	sturbed) ((SOIIS dis	turbed), possible field	tile present (r	nyarology d	listurbed)		
HYDROLOGY												
Wetland Hydro Primary:	• •	ators (Check here i	f indicate	ors are n	ot preser	nt 🗌):			Secondary:			
<u> </u>	A1 - Surface				B9 - Wate					B6 - Surface Soil		
	A2 - High Wa				B13 - Aqu					B10 - Drainage Pa		
	A3 - Saturation B1 - Water M				B14 - True C1 - Hydr					B16 - Moss Trim I C2 - Dry-Season		
	B2 - Sedimeı	nt Deposits			C3 - Oxidi	ized Rhizo	spheres on Living Roots			C8 - Crayfish Buri	ows	
	B3 - Drift De _l B4 - Algal Ma						educed Iron duction in Tilled Soils			C9 - Saturation Vi		igery
	B5 - Iron Dep				C7 - Thin					D2 - Geomorphic		
		on Visible on Aerial Ima	-		D9 - Guag	•				D5 - FAC-Neutral	Test	
	B8 - Sparsely	y Vegetated Concave S	surrace		Other (Ex	piain in Re	emarks)					
Field Observat	tions:											
Surface Water Water Table Pr Saturation Pres	Present? [esent? [Yes X No Yes X No Yes X No	Depth: Depth: Depth:	>20	(in.) (in.) (in.)			Wetland Hyd	drology Pı	resent? X	Yes No	
Describe Record	led Data (str	eam gauge, monitori	ng well, a	aerial pho	tos, previ	ous inspe	ctions), if available:					
Remarks:	possible fie	eld tile present										
	•	na the procent										
	•	na the procent										
SOILS	•	na the procent										
SOILS Map Unit Name:		·				S	eries Drainage Class:	very poorly d	rained			
Map Unit Name:	: Pe - Pewar	no silty clay loam	indicator or cor	nfirm the absence	ce of indicators.)		eries Drainage Class: centration, D=Depletion, RM=Reduced			Location: PL=Pore Lining, N	1=Matrix)	
Map Unit Name:	: Pe - Pewar	no silty clay loam	indicator or cor	nfirm the absend			centration, D=Depletion, RM=Reduced		pated Sand Grains;	Location: PL=Pore Lining, N	Texture	
Map Unit Name: Profile Descrip Top Depth	Pe - Pewartion (Describe to Bottom Depth	no silty clay loam	Color	Matrix (Moist)	%		centration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Co	pated Sand Grains;	Location: PL=Pore Lining, N	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0	Pe - Pewar tion (Describe to Bottom Depth 21	no silty clay loam the depth needed to document the	Color 2.5Y	Matrix (Moist) 2.5/1	% 100	(Type: C=Con	centration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Coedox Features %	Type	Location 	Texture (e.g. clay, sand sicl	
Map Unit Name: Profile Descrip Top Depth 0 21	Pe - Pewar tion (Describe to Bottom Depth 21 25	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1	% 100 90	(Type: C=Cor	Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10	Type C	Location pl	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0	Pe - Pewar tion (Describe to Bottom Depth 21	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y	Matrix (Moist) 2.5/1	% 100	(Type: C=Con	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10	Type	Location 	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0 21	Pe - Pewar tion (Describe to Bottom Depth 21 25	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1	% 100 90	(Type: C=Cor	Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10	Type C	Location pl	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0 21	Bottom Depth 21 25	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1	% 100 90	(Type: C=Cor	Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10	Type C	Location pl	Texture (e.g. clay, sand sicl cl 	
Map Unit Name: Profile Descrip Top Depth 0 21	Pe - Pewartion (Describe to Bottom Depth 21 25	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1	% 100 90	(Type: C=Cor	Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10	Type C	Location pl	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0 21	Pe - Pewar tion (Describe to Bottom Depth 21 25	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1	% 100 90	(Type: C=Cor	Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10	Type C	Location pl	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0 21	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1	% 100 90 re not pre	2.5Y esent	Color (Moist) 5/6):	Matrix, CS=Covered/Co edox Features % 10 Indicators	Type C s for Proble	Location pl matic Soils 1	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0 21	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir	mo silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1	% 100 90 re not pre	2.5Y esent oped Matrix	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10 Indicators	Type C s for Proble A16 - Coast	Location pl	Texture (e.g. clay, sand sicl cl	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir	mo silty clay loam the depth needed to document the Horizon ndicators (check he	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre \$6 - Stripp F1 - Loam	2.5Y esent ped Matrix	Color (Moist) 5/6	Matrix, CS=Covered/Co edox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic El A4 - Hydroge	Horizon Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple	2.5Y esent ped Matrix ny Muck M ny Gleyed eted Matrix	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified	Horizon Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent ped Matrix by Muck M by Gleyed eted Matrix by Dark Su	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick I	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre \$6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick E S1 - Sandy N	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre \$6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick E S1 - Sandy N	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre \$6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M TF12 - Very	Location pl	Texture (e.g. clay, sand	
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick E S1 - Sandy N S3 - 5 cm Mi	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre \$6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	Location pl	Texture (e.g. clay, sand sicl cl sace	d, loam)
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick E S1 - Sandy N S3 - 5 cm Mu S4 - Sandy R S5 - Sandy R	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre \$6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	Location pl	Texture (e.g. clay, sand sicl cl sace	d, loam)
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick E S1 - Sandy N S3 - 5 cm Mu S4 - Sandy R S5 - Sandy R	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Coedox Features % 10 Indicators Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	Location pl	Texture (e.g. clay, sand sicl cl sace	d, loam)
Map Unit Name: Profile Descrip Top Depth 0 21 NRCS Hydric	Pe - Pewar tion (Describe to Bottom Depth 21 25 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm N A11 - Deplete A12 - Thick E S1 - Sandy N S3 - 5 cm Mu S4 - Sandy R S5 - Sandy R	Horizon Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 icators a	% 100 90 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix crface Surface Surface	Matrix, CS=Covered/Co edox Features % 10 Indicators Indicators Indicators	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	Location pl	Texture (e.g. clay, sand sicl cl sace	d, loam)



Project/Site: West Millersport Station / W02 Wetland 1D: Wetland 2 Sample Point: SP 3

VEGETATION	(Species identified in all uppercase are non-na	ative spec	cies.)		
	ot size: 10 meter radius)				
(Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 2 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp63 x 1 =63
	Total Cover =	0			FACW spp. 5 x 2 = 10
					FAC spp. 25 x 3 = 75
Sapling/Shrub Stra	atum (Plot size: 5 meter radius)				FACU spp
1.					UPL spp. $0 x 5 = 0$
2.					
3.					Total <u>93</u> (A) <u>148</u> (B)
4.					
5.					Prevalence Index = B/A = 1.591
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes X No Rapid Test for Hydrophytic Vegetation
10.					x Yes ☐ No Dominance Test is > 50%
	Total Cover =	0			Yes No Prevalence Index is ≤ 3.0 *
					☐ Yes ☐ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius)				Yes No Problem Hydrophytic Vegetation (Explain) *
1.	Echinochloa muricata	60	Y	OBL	* Indicators of budging a cil and wattened budgets and be
2.	Xanthium strumarium	20	Υ	FAC	* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.	Panicum virgatum	5	N	FAC	present, unless disturbed of problematic.
4.	Packera glabella	5	N	FACW	Definitions of Vegetation Strata:
5.	Ammannia coccinea	3	N	OBL	
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter
7.					at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater
10.					than 3.28 ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of
13.					size, and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	93			, , , , , , , , , , , , , , , , , , ,
Woody Vine Strat	um (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present X Yes No
4.					, J
5.					
	Total Cover =	0			
Remarks:	. 3.4. 33.31				

Additional Remarks:

photos: P9-N, P10-E, P11-S, P12-W		



Project/Site:	West Miller	sport Station / W02					Stantec Project #:	193705641		Date:	09/26/17
Applicant:	AEP									County:	Fairfield
Investigator #1:				Investi	gator #2:			NI/A		State:	OH
Soil Unit:		no silty clay loam		ا م	al Daliafi		/I/WWI Classification:	N/A		Wetland ID:	Wetland 2 SP 4
Landform: Slope (%):	Side slope 2	Latitude:	30.80		al Relief: ongitude:			Datum:	NVD83	Sample Point: Community ID:	upland
		ditions on the site ty						X Yes	No	Section:	6
		or Hydrology X sig				(if no, expir	Are normal circumsta			Township:	16N
		or Hydrology na					X Yes	No No	:	Range:	18W
SUMMARY OF	FINDINGS	or riyarology ha	turally pr	obicinati	i C :		X 163	INO		rtange.	1000
Hydrophytic Ve		sent?		Yes	X No			Hydric Soils F	Present?		X Yes No
Wetland Hydrol				Yes						Within A Wetlan	
Remarks:			d bounda			area of fa	arm field; evidence of t				
rtemants.		drology disturbed)	a bounde	ary, within	Dancii	area or it	arm noia, evidence or i	umig (vegetati	ori diotarb	ca) (solis distait	oca), possible field the
	procent (ii)	arology alotarboa)									
HYDROLOGY											
		.t (Ob). b if	: :!: 4 -			4 Jag V.					
Wetland Hydr		ators (Check here if	rindicato	ors are no	ot presen	t X):			Secondary:		
Filliary	A1 - Surface	Water			B9 - Wate	r-Stained	Leaves		Secondary.	B6 - Surface Soil	Cracks
	A2 - High Wa				B13 - Aqu					B10 - Drainage Pa	
	A3 - Saturation				B14 - True					B16 - Moss Trim L	
	B1 - Water M				C1 - Hydr				<u> </u>	C2 - Dry-Season \	
	B2 - Sedimer B3 - Drift Dep						spheres on Living Roots educed Iron		<u> </u>	C8 - Crayfish Burr	ows sible on Aerial Imagery
	B4 - Algal Ma						duction in Tilled Soils		<u> </u>	D1 - Stunted or St	
	B5 - Iron Dep				C7 - Thin					D2 - Geomorphic	
		on Visible on Aerial Ima			D9 - Guag					D5 - FAC-Neutral	Test
	B8 - Sparsely	Vegetated Concave S	Surface		Other (Ex	plain in Re	emarks)				
F: 1101											
Field Observat	_		.	•							
Surface Water		Yes X No	Depth:		(in.)			Wetland Hyd	Irology Pr	esent?	Yes X No
Water Table Pr	_	Yes X No	Depth:		(in.)			•			
Saturation Pres	sent?	Yes X No	Depth:	>24	(in.)						
Describe Record	ed Data (stre	am gauge, monitoring	g well, ae	rial photo	s, previou	s inspecti	ons), if available:				
Remarks:	possible fie	ld tile present									
Remarks:	possible fie	ld tile present									
	possible fie	ld tile present									
SOILS		·									
SOILS Map Unit Name	: Pe - Pewan	no silty clay loam					eries Drainage Class:				
SOILS Map Unit Name Profile Descrip	: Pe - Pewan	no silty clay loam	indicator or co		ce of indicators.		ncentration, D=Depletion, RM=Reduced	d Matrix, CS=Covered/Co		Location: PL=Pore Lining, I	
SOILS Map Unit Name Profile Descrip Top	Pe - Pewan	no silty clay loam the depth needed to document the		Matrix			ncentration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Co	ated Sand Grains;	<u> </u>	Texture
SOILS Map Unit Name Profile Descrip Top Depth	Pe - Pewan tion (Describe to ti Bottom Depth	no silty clay loam the depth needed to document the Horizon	Color	Matrix (Moist)	%	(Type: C=Cor	ncentration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Co	ated Sand Grains;	Location	Texture (e.g. clay, sand, loam)
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewan tion (Describe to to Bottom Depth 16	no silty clay loam he depth needed to document the Horizon	Color 2.5Y	Matrix (Moist) 2.5/1	% 100	(Type: C=Coi	Re Color (Moist)	Matrix, CS=Covered/Co	Type	Location 	Texture (e.g. clay, sand, loam) sicl
SOILS Map Unit Name Profile Descrip Top Depth 0 16	Pe - Pewan tion (Describe to to Bottom Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1	% 100 95	 2.5Y	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix, CS=Covered/Co dox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewan tion (Describe to to Bottom Depth 16	no silty clay loam the depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1	% 100 95 	 2.5Y	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Cocdox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16	Pe - Pewan tion (Describe to to Bottom Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1	% 100 95	 2.5Y	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix, CS=Covered/Co dox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16	Pe - Pewan tion (Describe to to Bottom Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1 	% 100 95 	2.5Y	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co edox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16	Pe - Pewan tion (Describe to ti Bottom Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1 	% 100 95 	2.5Y	contration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co edox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16	Pe - Pewan tion (Describe to to Bottom Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1 	% 100 95 	2.5Y	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co edox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16	Pe - Pewan tion (Describe to ti Bottom Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 2.5/1 4/1 	% 100 95 	2.5Y	contration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co edox Features % 5	Type C	Location pl	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewantion (Describe to the Bottom Depth 16 24 Soil Field In	no silty clay loam he depth needed to document the Horizon	2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 	% 100 95 re not pre	2.5Y sent	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6);	J Matrix, CS=Covered/Co Ldox Features % 5 Indicators	Type C s for Proble	Location pl matic Soils ¹	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewantion (Describe to the Bottom Depth 16 24 Soil Field In A1- Histosol	no silty clay loam he depth needed to document the Horizon	2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 	% 100 95 e not pre \$6 - Stripp	2.5Y sent oed Matrix	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble	Location pl matic Soils Prairie Redox	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewan tion (Describe to ti Bottom Depth 16 24 Soil Field In A1- Histosol A2 - Histic Ep	no silty clay loam he depth needed to document the Horizon dicators (check he objeedon	2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 	% 100 95 e not pre \$6 - Stript F1 - Loan	2.5Y sent odd Matrix	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co edox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark Si	Location pl matic Soils ¹ Prairie Redox	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewan tion (Describe to the street of t	no silty clay loam he depth needed to document the Horizon dicators (check he objeedon stic	2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre S6 - Stripi F1 - Loam F2 - Loam	2.5Y sent yn Muck M ny Gleyed	contration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co edox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M	Location pl matic Soils ¹ Prairie Redox urface anganese Masses	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewan tion (Describe to ti Bottom Depth 16 24 Soil Field In A1- Histosol A2 - Histic Ep	no silty clay loam he depth needed to document the Horizon dicators (check he bipedon stic in Sulfide	2.5Y 2.5Y 	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre \$6 - Stript F1 - Loan	2.5Y sent odd Matrix y Muck My Gleyed deted Matrix	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very	Location pl matic Soils ¹ Prairie Redox	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewantion (Describe to the Depth Depth 16 24	no silty clay loam he depth needed to document the Horizon dicators (check he objedon stic on Sulfide d Layers luck	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre 66 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very	Location pl matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewantion (Describe to the Depth 16 24	no silty clay loam he depth needed to document the Horizon dicators (check he bipedon stic on Sulfide d Layers luck and Below Dark Surface	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre S6 - Stripi F1 - Loam F2 - Loam F3 - Depi6 F6 - Redo	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very	Location pl matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Ep A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick D	no silty clay loam he depth needed to document the Horizon dicators (check he bipedon stic n Sulfide d Layers luck ed Below Dark Surface bark Surface	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre 66 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very	Location pl matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hydroge A5 - Stratified A11 - Depick A12 - Thick D S1 - Sandy M	no silty clay loam he depth needed to document the Horizon dicators (check he bipedon stic n Sulfide d Layers luck ed Below Dark Surface bluck Mineral	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre 66 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very	Location pl matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hydroge A5 - Stratified A11 - Depick A12 - Thick D S1 - Sandy M	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre 66 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very	Location pl matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewantion (Describe to the Depth 16 24	Horizon Hor	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre 66 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	J Matrix, CS=Covered/Co dox Features % 5 Indicators	Type C s for Proble A16 - Coast S7 - Dark St F1-2 Iron-M TF12 - Very Other (Expla	Location pl pl matic Soils Prairie Redox urface anganese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0	Pe - Pewan tion (Describe to the state of th	Horizon Hor	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95 e not pre 66 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co dox Features % 5 Indicators ¹ Indicators of hydro	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location pl matic Soils Prairie Redox urface anganese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16 NRCS Hydric	Pe - Pewantion (Describe to the Depth 16 24	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co dox Features % 5 Indicators ¹ Indicators of hydrodisturbo	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location pl matic Soils Prairie Redox urface anganese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) sicl cl ace
SOILS Map Unit Name Profile Descrip Top Depth 0 16 NRCS Hydric Restrictive Laye (If Observed)	Pe - Pewan tion (Describe to ti Bottom Depth 16 24 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifiec A10 - 2 cm M A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co dox Features % 5 Indicators ¹ Indicators of hydro	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location pl matic Soils Prairie Redox urface anganese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) sicl cl
SOILS Map Unit Name Profile Descrip Top Depth 0 16 NRCS Hydric	Pe - Pewan tion (Describe to ti Bottom Depth 16 24 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifiec A10 - 2 cm M A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	no silty clay loam he depth needed to document the Horizon	Color 2.5Y 2.5Y ere if indi	Matrix (Moist) 2.5/1 4/1 cators ar	% 100 95	2.5Y sent y Muck Matrix y Muck Matrix y Muck Matrix x Dark Sueted Dark	ncentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	d Matrix, CS=Covered/Co dox Features % 5 Indicators ¹ Indicators of hydrodisturbo	Type C s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location pl matic Soils Prairie Redox urface anganese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) sicl cl ace



Project/Site: West Millersport Station / W02 Wetland ID: Wetland 2 Sample Point: SP 4

VEGETATION	(Species identified in all uppercase are non-n-	ative spec	cies.)		
	Plot size: 10 meter radius)	auvo opoc	5100.7		
,	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 1 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.				-	Total % Cover of: Multiply by:
10.					OBL spp. $3 x 1 = 3$
	Total Cover =	0			FACW spp. 10 x 2 = 20
					FAC spp. $8 x 3 = 24$
Sapling/Shrub S	tratum (Plot size: 5 meter radius)				FACU spp. 65 x 4 = 260
1.				-	UPL spp. 0 x 5 = 0
2.				-	
3.				-	Total <u>86</u> (A) <u>307</u> (B)
4.				-	
5.					Prevalence Index = B/A =
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes 🛛 No Rapid Test for Hydrophytic Vegetation
10.					Yes X No Dominance Test is > 50%
	Total Cover =	0			Yes X No Prevalence Index is ≤ 3.0 *
					Yes 🕱 No Morphological Adaptations (Explain) *
Herb Stratum (P	lot size: 2 meter radius)				Yes X No Problem Hydrophytic Vegetation (Explain) *
1.	Portulaca oleracea	60	Υ	FACU	* Indicators of hydric soil and wetland hydrology must be
2.	Packera glabella	10	N	FACW	present, unless disturbed or problematic.
3.	Xanthium strumarium	3	N	FAC	procent, amose distarbed of problematic.
4.	Ambrosia trifida	5	N	FAC	Definitions of Vegetation Strata:
5.	Ammannia coccinea	3	N	OBL	
6	Stellaria media	5	N	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter
7.	Zea mays	10	N	#N/A	at breast height (DBH), regardless of height.
8.				-	
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater
10.				-	than 3.28 ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of
13.				-	size, and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	96			
Woody Vine Stra	atum (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present Yes X No
4.					
5.					
	Total Cover =	0			
Remarks:					

Additional Remarks:

photo: P13-N			



Project/Site:												
riojeci/Site.	West Miller	sport Station / W03	3				Stantec Project #:	193705641		Date:	09/26/17	
Applicant:	AEP									County:	Fairfield	
Investigator #1:	Bill Leopolo	1		Investi	gator #2:	Kate Bo	mar			State:	OH	
Soil Unit:	Pe - Pewan	no silty clay loam				NW	/I/WWI Classification:	N/A		Wetland ID:	Wetland 3	
Landform:	Depression			Loc	al Relief:	Concav	е			Sample Point:	SP 6	
Slope (%):	0	Latitude	39.89		ongitude:			Datum:	NAD83	Community ID:	pem	
• • •	drologic conc	ditions on the site ty						X Yes	No	Section:	6	
Are Vegetation			nificantly			(11 110, 020	Are normal circumsta			Township:	16N	
-	_		•					No	· · ·			
Are Vegetation		or Hydrology na	lurally pr	obiemali	U?		X Yes	INO		Range:	18W	
SUMMARY OF												
Hydrophytic Ve	getation Pre	sent?		X Yes	No			Hydric Soils			X Yes No	
Wetland Hydrol	ogy Present	?		x Yes	No			Is This Sam	pling Point	Within A Wetla	nd? X Yes No	
Remarks:	within cons	tructed drainage di	tch									
		· ·										
HVDDOL OOV												
HYDROLOGY												
Wetland Hydr	ology Indica	ators (Check here	if indicate	ors are n	ot preser	nt 🗌):						
Primary		•			·				Secondary:			
	A1 - Surface				B9 - Wate	er-Stained	Leaves			B6 - Surface Soil		
	A2 - High Wa				B13 - Aqu				X	B10 - Drainage P		
X	A3 - Saturation					e Aquatic				B16 - Moss Trim		
	B1 - Water M				C1 - Hydr					C2 - Dry-Season		
	B2 - Sedimer						spheres on Living Roots			C8 - Crayfish Bur		
	B3 - Drift Dep						educed Iron eduction in Tilled Soils			D1 - Saturation v	/isible on Aerial Imagery	
	B4 - Algal Ma B5 - Iron Dep				Co - Rece C7 - Thin				V	D2 - Geomorphic		
		on Visible on Aerial Im	agery		D9 - Guag					D5 - FAC-Neutra		
		Vegetated Concave			Other (Ex					Jo Trio Houra		
				,	(,					
Field Observat	ione:											
	_	- Vaa - Na	D = = 4l= .	0	(!: \							
Surface Water		Yes X No	Depth:		(in.)			Wetland Hy	drology Pi	resent? X	Yes No	
Water Table Pr		X Yes No	Depth:		(in.)				3,	120		
Saturation Pres	ent?	🗙 Yes 🗌 No	Depth:	0	(in.)							
Describe Record	led Data (stre	eam gauge, monitori	ng well a	aerial pho	tos previ	ous inspe	ections) if available:					
	(0.11)	gereige, mermeen			тоо, р.о		, out of the term of term of term of the term of the term of the term of term of term of term of term of term of t					
L Damarke:												_
Remarks:												
Remarks:												
SOILS												
SOILS	: Pe - Pewan	no silty clay loam				S	eries Drainage Class:	very poorly o	drained			
SOILS Map Unit Name			indicator or cor	nfirm the absen	ce of indicators.)			<u> </u>		Location: PL=Pore Lining,	M=Matrix)	
SOILS Map Unit Name Profile Descrip	tion (Describe to t		indicator or cor				centration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Co	oated Sand Grains;	Location: PL=Pore Lining,		
SOILS Map Unit Name Profile Descrip Top	tion (Describe to to Bottom	he depth needed to document the		Matrix	_		centration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Co	oated Sand Grains;	T	Texture	n)
SOILS Map Unit Name Profile Descrip Top Depth	Bottom Depth		Color	Matrix (Moist)	%	(Type: C=Con	centration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Cocedox Features	oated Sand Grains; Type	Location: PL=Pore Lining, l	Texture (e.g. clay, sand, loar	<u>n)</u>
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 6	he depth needed to document the	Color 2.5Y	Matrix (Moist) 4/2	% 100	(Type: C=Con	centration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Cocococococococococococococococococococ	Type	Location 	Texture (e.g. clay, sand, loar	<u>n)</u>
SOILS Map Unit Name Profile Descrip Top Depth	Bottom Depth	he depth needed to document the	Color	Matrix (Moist)	%	(Type: C=Con	centration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Cocedox Features	oated Sand Grains; Type	T	Texture (e.g. clay, sand, loar	<u>n)</u>
SOILS Map Unit Name Profile Descrip Top Depth 0	Bottom Depth 6	he depth needed to document the Horizon	Color 2.5Y	Matrix (Moist) 4/2	% 100	(Type: C=Con	centration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Cocococococococococococococococococococ	Type	Location 	Texture (e.g. clay, sand, loar	n)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16	he depth needed to document the Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/2 4/2	% 100 80	(Type: C=Cor	centration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Cocococococococococococococococococococ	Type C	Location m	Texture (e.g. clay, sand, loar	n)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16	Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/2 4/2 	% 100 80 	 2.5Y	Color (Moist) 5/6	Matrix, CS=Covered/Coc dox Features % 20	Type C	Location m 	Texture (e.g. clay, sand, loar	n)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 	2.5Y	Color (Moist) 5/6	Matrix, CS=Covered/Coc dox Features % 20	Type C	Location m	Texture (e.g. clay, sand, loar silo sicllo	<u>n)</u>
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 	2.5Y	Color (Moist) 5/6	Matrix, CS=Covered/Cov	Type C	Location m	Texture (e.g. clay, sand, loar silo sicllo	n)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 	2.5Y	Color (Moist) 5/6	Matrix, CS=Covered/Coc edox Features % 20	Type C	Location m	Texture (e.g. clay, sand, loar silo sicllo	<u>n)</u>
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 	2.5Y	Color (Moist) 5/6	Matrix, CS=Covered/Cov	Type C	Location m	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 re not pre	2.5Y esent	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix, CS=Covered/Cov	Type C	Location m matic Soils 1	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 re not pre	2.5Y esent oped Matrix	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix, CS=Covered/Cov	Type C S for Proble A16 - Coast	Location m matic Soils ¹ Prairie Redox	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2	% 100 80 re not pre	2.5Y esent ped Matrix	Color (Moist) 5/6	Matrix, CS=Covered/Cov	Type C s for Proble A16 - Coast S7 - Dark S	Location m matic Soils ¹ Prairie Redox	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam	2.5Y esent ped Matrix by Muck M by Gleyed	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6): ineral Matrix	Matrix, CS=Covered/Cov	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-M	Location m matic Soils ¹ Prairie Redox urface langanese Masse	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1 - Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple	2.5Y esent ped Matrix ny Muck M ny Gleyed eted Matrix	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6 ineral Matrix	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent ped Matrix by Muck M by Gleyed eted Matrix by Dark Su	Color (Moist) 5/6	Matrix, CS=Covered/Cov	Type C	Location m matic Soils ¹ Prairie Redox urface langanese Masse	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M	Horizon adicators (check head) bipedon stic en Sulfide d Layers luck	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Stripp F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick D	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm W A11 - Deplete A12 - Thick E S1 - Sandy W S3 - 5 cm Mu	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cov	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur	Texture (e.g. clay, sand, loar silo sicllo	m)
SOILS Map Unit Name Profile Descrip Top Depth 0 6	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm W A11 - Deplete A12 - Thick E S1 - Sandy W S3 - 5 cm Mu	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cocdox Features % 20 Indicator Indicator Indicator	Type C S for Proble A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur ain in Remarks)	Texture (e.g. clay, sand, loar silo sicllo	
SOILS Map Unit Name Profile Descrip Top Depth 0 6 NRCS Hydric	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A1- Deplete A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre S6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cocdox Features % 20 Indicator Indicator Indicator	Type C s for Proble A16 - Coast S7 - Dark S F12 - Iron-N TF12 - Very Other (Expla	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur ain in Remarks)	Texture (e.g. clay, sand, loar silo sicllo srface	
SOILS Map Unit Name Profile Descrip Top Depth 0 6 NRCS Hydric	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre \$6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Cocdox Features % 20 Indicator Indicator Indicator	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur ain in Remarks)	Texture (e.g. clay, sand, loar silo sicllo srface	
SOILS Map Unit Name Profile Descrip Top Depth 0 6 NRCS Hydric Restrictive Laye (If Observed)	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre \$6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Coc dox Features % 20 Indicator Indicator Indicator	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur ain in Remarks)	Texture (e.g. clay, sand, loar silo sicllo srface	
SOILS Map Unit Name Profile Descrip Top Depth 0 6 NRCS Hydric	Bottom Depth 6 16 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick E S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	Horizon	Color 2.5Y 2.5Y ere if ind	Matrix (Moist) 4/2 4/2 icators a	% 100 80 re not pre \$6 - Strip F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple F8 - Redo	2.5Y esent oped Matrix by Muck May Gleyed eted Matrix by Dark Sueted Dark	Re Color (Moist) 5/6): ineral Matrix curface Surface Surface	Matrix, CS=Covered/Coc dox Features % 20 Indicator Indicator Indicator	Type C	Location m matic Soils Prairie Redox urface langanese Masse Shallow Dark Sur ain in Remarks)	Texture (e.g. clay, sand, loar silo sicllo srface	



Project/Site: West Millersport Station / W03 Wetland ID: Wetland 3 Sample Point: SP 6

VEGETATION	(Species identified in all uppercase are non-na	ative spe	cies.)		
	ot size: 10 meter radius)				
	Species Name	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 3 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
7.					(12)
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 83 x 1 = 83
10.	Total Cover =	0			FACW spp. $\frac{25}{25}$ \times 2 = $\frac{50}{25}$
	i otai oovei –	O			FACW spp. 25 x 2 = 50 FAC spp. 0 x 3 = 0
Sanling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp. 0 x 4 = 0
1.	Salix nigra	3		OBL	UPL spp. $\begin{array}{ccccc} & & & & & & & & & & & & & & & & &$
2.					ΟΓΕ SPP X 3 =
3.					Total 109 (A) 133 (B)
					Total 108 (A) 133 (B)
4.					Durantenas ladas D/A 4 004
5.					Prevalence Index = B/A = 1.231
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					🗙 Yes 🦳 No Rapid Test for Hydrophytic Vegetation
10.					Yes No Dominance Test is > 50%
	Total Cover =	3			Yes No Prevalence Index is ≤ 3.0 *
					Yes No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius)				Yes No Problem Hydrophytic Vegetation (Explain) *
1.	Scirpus atrovirens	30	Υ	OBL	* Indicators of budgie soil and watered budgets on the
2.	Euthamia graminifolia	10	N	FACW	* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.	Leersia oryzoides	30	Υ	OBL	present, unless disturbed of problematic.
4.	Lobelia siphilitica	5	N	OBL	Definitions of Vegetation Strata:
5.	Symphyotrichum novae-angliae	5	N	FACW	
6	Juncus effusus	10	N	OBL	Tree - Woody plants 3 in. (7.6cm) or more in diameter
7.	Eupatorium perfoliatum	5	N	OBL	at breast height (DBH), regardless of height.
8.	Carex vulpinoidea	10	N	FACW	
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater
10.					than 3.28 ft. tall.
11.					
					Herb - All herbaceous (non-woody) plants, regardless of
12. 13.					size, and woody plants less than 3.28 ft. tall.
					Size, and woody plants less than 5.20 ft. tall.
14.					Marcal Marca Allows a developed a grant and bear 0.00 ft. in height
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	105			
Woody Vine Strate	um (Plot size: 10 meter radius)				
1					
2.	_ 				
3.	_ 				Hydrophytic Vegetation Present X Yes No
					Hydrophytic vegetation Fresent X Yes NO
<u>4.</u>					
5.	Total Cover =				
Damania	Total Cover =	0			
Remarks:					

Additional Remarks:

photos: P16-N, P17-E, P18-S, P19-W



Project/Site:		sport Station / W03	3				Stantec Project #:	193705641		Date:	09/26/17
Applicant:	AEP									County:	Fairfield
Investigator #1:				Investi	gator #2:			NI/A		State:	OH
Soil Unit:		no silty clay loam			al Daliafi		/I/WWI Classification:	N/A		Wetland ID:	Wetland 3
Landform:	Side slope	L atituda:	20.00		al Relief:		251	Datum:	NVD03	Sample Point:	SP 7
Slope (%):	5 drologie cond	<u>Latitude:</u> litions on the site ty			ongitude:			Datum:		Community ID:	upland 6
Are Vegetation				y disturbe		(It no, expire	Are normal circumsta		No P2	Section:	16N
Are Vegetation				oblemati			X Yes	No	l.f	Township: Range:	18W
SUMMARY OF	EINDINGS	or riyurology	lurany p	UDICITION	IC:		A 100	INU		Nanye.	10vv
Hydrophytic Ve		sent?		Yes	X No			Hydric Soils	Present?		Yes X No
Wetland Hydrol				Yes						Within A Wetlan	
Remarks:		eet east of wetland	on side s					15 11119 00.111	Jillig I olik	VVICIIII / V VV Otici-	IU: TOO IX
Terriands. Test cast of welland off side slope of ditori											
HYDROLOGY											
	alogy Indica	itors (Check here it	f indicato	re are no	of present	· [v]					
Primary		ILUIS (OHEGE HELE H	lliuloato	JIS ale in	ot presen	L A . /•			Secondary:		
	A1 - Surface				B9 - Wate					B6 - Surface Soil	
<u> </u>	A2 - High Wa				B13 - Aqu				L	B10 - Drainage Pa	
<u> </u>	A3 - Saturation B1 - Water M			<u> </u>	B14 - True C1 - Hydr				<u> </u>	B16 - Moss Trim I C2 - Dry-Season	
<u> </u>	B2 - Sedimer			<u> </u>			spheres on Living Roots			C8 - Crayfish Buri	
	B3 - Drift Dep	osits			C4 - Pres	ence of Re	educed Iron			C9 - Saturation Vi	isible on Aerial Imagery
<u> </u>	B4 - Algal Ma						duction in Tilled Soils		<u> </u>	D1 - Stunted or St	
	B5 - Iron Dep	osits on Visible on Aerial Im	agon/	<u> </u>	C7 - Thin D9 - Guag				<u> </u>	D2 - Geomorphic D5 - FAC-Neutral	
		Vegetated Concave S		<u> </u>	Other (Ex				1	D5 - FAC-Neutral	1651
	,						,				
Field Observat	tions:										
Surface Water	Present?	Yes X No	Depth:	0	(in.)			Motland Hy	dealogy Dr		Van W No
Water Table Pr		Yes x No	Depth:		(in.)			Wetland Hyd	arology Fi	esent?	Yes X No
Saturation Pres	sent?	Yes X No	Depth:		(in.)						
Describe Record	ed Data (stre	am gauge, monitoring	n well, ae	rial photo	s previou	s inspecti	ons), if available:				
Remarks:	· · ·	u gg-,	9 , -	Then p	σ, μ	·	5.10 ₁ , 2.1 2				
1.0											
SOILS											
Map Unit Name		no silty clay loam					eries Drainage Class:				
Map Unit Name			indicator or cor	nfirm the absen	ice of indicators.		eries Drainage Class: centration, D=Depletion, RM=Reduced			Location: PL=Pore Lining,	
Map Unit Name			indicator or cor	nfirm the absen Matrix			ncentration, D=Depletion, RM=Reduced		oated Sand Grains;	Location: PL=Pore Lining,	Texture
Map Unit Name Profile Descrip Top Depth	Bottom Depth				%		ncentration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Co	oated Sand Grains;	Location: PL=Pore Lining,	
Map Unit Name Profile Descrip Top	Bottom Depth	ne depth needed to document the		Matrix			ncentration, D=Depletion, RM=Reduced	Matrix, CS=Covered/Codox Features	oated Sand Grains;	1	Texture
Map Unit Name Profile Descrip Top Depth	Bottom Depth	ne depth needed to document the	Color	Matrix (Moist)	%	(Type: C=Cor	ncentration, D=Depletion, RM=Reduced Re Color (Moist)	Matrix, CS=Covered/Cocordox Features	oated Sand Grains;	Location	Texture (e.g. clay, sand, loam)
Map Unit Name Profile Descrip Top Depth 0	Bottom Depth	Horizon	Color 2.5Y	Matrix (Moist) 4/3	% 100	(Type: C=Cor	Re Color (Moist)	Matrix, CS=Covered/Codox Features %	oated Sand Grains; Type	Location 	Texture (e.g. clay, sand, loam) silo
Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18	Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/3 4/3	% 100 70	 2.5Y	contration, D=Depletion, RM=Reduced Re Color (Moist) 5/6	Matrix CS=Covered/Co dox Features % 10	Type C	Location m	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	Bottom Depth 10 18	Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/3 4/3	% 100 70 	 2.5Y 2.5Y	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6 6/1	d Matrix, CS=Covered/Cidox Features % 10 20	Type C d	Location m m	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to the Bottom Depth 10 18	Horizon	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70 	 2.5Y 2.5Y	Re Color (Moist) 5/6 6/1	Matrix, CS=Covered/C dox Features % 10 20	Type C d	Location m m	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to the Bottom Depth 10 18	Horizon	Color 2.5Y 2.5Y	Matrix (Moist) 4/3 4/3 	% 100 70 	 2.5Y 2.5Y	centration, D=Depletion, RM=Reduced Re Color (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 	Type C d	Location m m	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to the Bottom Depth 10 18	Horizon	2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y	contration, D=Depletion, RM=Reduced Re Color (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 	Type C d	Location m m	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to Bottom Depth 10 18 Soil Field In	Horizon	2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70 re not pre		Color (Moist)	Matrix, CS=Covered/Cdox Features % 10 20 Indicator	Type C d s for Proble	Location m m matic Soils 1	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to Bottom Depth 10 18 Soil Field In A1- Histosol	Horizon dicators (check he	2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70 e not pre \$6 - Stripp	2.5Y 2.5Y sent X ged Matrix	contration, D=Depletion, RM=Reduced Re Color (Moist) 5/6 6/1):	Matrix, CS=Covered/Cdox Features % 10 20 Indicator	Type C d s for Proble	Location m m matic Soils ¹ Prairie Redox	Texture (e.g. clay, sand, loam) silo silo
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Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to Bottom Depth 10 18 Soil Field In A1- Histosol	Horizon dicators (check he	2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70 e not pre S6 - Stript F1 - Loam F2 - Loam	2.5Y 2.5Y sent X you Muck M ny Gleyed	Color (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark St F12 - Iron-M	Location m m matic Soils ¹ Prairie Redox urface langanese Masses	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to the Bottom Depth 10 18 Soil Field In A1- Histosol A2 - Histic Ep. A3 - Black His	Horizon dicators (check he	2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70 re not pre \$6 - Stript F1 - Loan	2.5Y 2.5Y	coentration, D=Depletion, RM=Reduced Re Color (Moist) 5/6 6/1): ineral Matrix	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very	Location m m matic Soils ¹ Prairie Redox urface	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to Bottom Depth 10 18 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifiec A10 - 2 cm M	Horizon dicators (check he bipedon stic n Sulfide I Layers uck	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X y Muck Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to to Depth Depth 10 18 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi: A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete	Horizon dicators (check he objector stic n Sulfide I Layers uck ad Below Dark Surface	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70 e not pre S6 - Stripi F1 - Loam F2 - Loam F3 - Deple	2.5Y 2.5Y sent X y Muck Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to Bottom Depth 10 18 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A10 - 2 cm M A11 - Deplete A12 - Thick D	Horizon dicators (check he bipedon stic n Sulfide I Layers uck ad Below Dark Surface lark Surface lark Surface	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to to Depth Depth 10 18	Horizon dicators (check he bipedon stic n Sulfide I Layers uck ad Below Dark Surface lark Surface lark Surface	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to to Depth 10 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Horizon dicators (check he objector stic n Sulfide I Layers uck ad Below Dark Surface luck Mineral cky Peat or Peat leyed Matrix	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cr dox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark S7 F12 - Iron-M TF12 - Very	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surf	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10	tion (Describe to to to Depth Depth 10 18	Horizon dicators (check he objector stic n Sulfide I Layers uck ad Below Dark Surface luck Mineral cky Peat or Peat leyed Matrix	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cdox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10 NRCS Hydric	tion (Describe to to Bottom Depth 10 18 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifice A10 - 2 cm M A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G S5 - Sandy R	Horizon dicators (check he objector stic n Sulfide I Layers uck ad Below Dark Surface luck Mineral cky Peat or Peat leyed Matrix	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cdox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark St F12 - Iron-M TF12 - Very Other (Expla	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10 NRCS Hydric	tion (Describe to to to Depth Depth 10 18 18 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Horizon dicators (check he objector stic n Sulfide I Layers uck ad Below Dark Surface luck Mineral cky Peat or Peat leyed Matrix	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	Matrix, CS=Covered/Cdox Features % 10 20 Indicator	Type C d s for Proble A16 - Coast S7 - Dark SI F12 - Iron-M TF12 - Very Other (Expla	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) silo silo sface
Map Unit Name Profile Descrip Top Depth 0 10 NRCS Hydric Restrictive Laye (If Observed)	tion (Describe to to to Depth Depth 10 18 18 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Horizon dicators (check here) sitic in Sulfide it Layers uck ad Below Dark Surface luck Mineral cky Peat or Peat leyed Matrix edox	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 cators ar	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	I Matrix, CS=Covered/Cdox Features % 10 20 Indicator 1 Indicators of hyddisturts	Type C d s for Proble A16 - Coast S7 - Dark SI F12 - Iron-M TF12 - Very Other (Expla	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) silo silo
Map Unit Name Profile Descrip Top Depth 0 10 NRCS Hydric	tion (Describe to to to Depth Depth 10 18 18 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Horizon dicators (check here) sitic in Sulfide it Layers uck ad Below Dark Surface luck Mineral cky Peat or Peat leyed Matrix edox	Color 2.5Y 2.5Y 	Matrix (Moist) 4/3 4/3 cators ar	% 100 70	2.5Y 2.5Y sent X yed Matrix y Muck Matrix y Muck Matrix x Dark Su eted Dark	Recontration, D=Depletion, RM=Reduced ReColor (Moist) 5/6 6/1	I Matrix, CS=Covered/Cdox Features % 10 20 Indicator 1 Indicators of hyddisturts	Type C d s for Proble A16 - Coast S7 - Dark SI F12 - Iron-M TF12 - Very Other (Expla	Location m m matic Soils Prairie Redox urface langanese Masses Shallow Dark Surfain in Remarks)	Texture (e.g. clay, sand, loam) silo silo sface



Additional Remarks: photo: P20-W

WETLAND DETERMINATION DATA FORM Midwest Region

Project/Site: West Millersport Station / W03 Wetland ID: Wetland 3 Sample Point: SP 7

VEGE	TATION	(Species identified in all uppercase are non-na	ative spe	cies.)		
Tree St	tratum (Plo	ot size: 10 meter radius)				
		Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
	1.					
	2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)
	3.					
	4.					Total Number of Dominant Species Across All Strata: 3 (B)
	5.					
	6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
	7.					
	8.					Prevalence Index Worksheet
	9.					Total % Cover of: Multiply by:
	10.					OBL spp5 x 1 =5
		Total Cover =	0			FACW spp. 0 x 2 = 0
						FAC spp. 10 x 3 = 30
Sapling	/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp. 82 x 4 = 328
	1.	Elaeagnus umbellata	20	Υ	UPL	UPL spp. <u>25</u> x 5 = <u>125</u>
	2.	Rubus pensilvanicus	5	N	UPL	
	3.	Lonicera morrowii	5	N	FACU	Total(A)(B)
	4.	Hypericum prolificum	2	N	FACU	
	5.					Prevalence Index = B/A = 4.000
	6.					
	7.					
	8.					Hydrophytic Vegetation Indicators:
	9.					Yes X No Rapid Test for Hydrophytic Vegetation
	10.					Yes X No Dominance Test is > 50%
		Total Cover =	32			Yes X No Prevalence Index is ≤ 3.0 *
						Yes X No Morphological Adaptations (Explain) *
Herb S	tratum (Plo	t size: 2 meter radius)				Yes X No Problem Hydrophytic Vegetation (Explain) *
	1.	Schizachyrium scoparium	30	Υ	FACU	* Indicators of hydric soil and wetland hydrology must be
	2.	Solidago canadensis	10	N	FACU	present, unless disturbed or problematic.
	3.	Symphyotrichum pilosum	30	Υ	FACU	
	4.	Eupatorium perfoliatum	5	N	OBL	Definitions of Vegetation Strata:
	5.	Plantago lanceolata	5	N	FACU	
	6	Vernonia gigantea	10	N	FAC	Tree - Woody plants 3 in. (7.6cm) or more in diameter
	7.					at breast height (DBH), regardless of height.
	8.					
	9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater
	10.					than 3.28 ft. tall.
	11.					
	12.					Herb - All herbaceous (non-woody) plants, regardless of
	13.					size, and woody plants less than 3.28 ft. tall.
	14.					
	15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
		Total Cover =	90			
Woody	Vine Strat	um (Plot size: 10 meter radius)				
	1.					
	2.					
	3.					Hydrophytic Vegetation Present Yes X No
	4.					
	5.					
		Total Cover =	0			
Rema	rks:					

WEST MILLERSPORT STATION EXPANSION PROJECT, FAIRFIELD COUNTY, OHIO

D.2 ORAM DATA FORMS



Background Information

Name: Bill Leo	Pole	
Date: 9-29-2	X 4	
Affiliation: Stan	tec.	= = 1
	7 Lebanon Rd Cincinnati ottys.	241
Dhana Numban	1619-6461	
e-mail address:	11. legas & a Stantec.com	
Name of Wetland:	Wetland 1	
Vegetation Communit(ies):	PEM	
HGM Class(es):	pressional	
Location of Wetland: include m	nap, address, north arrow, landmarks, distances, roads, etc.	04204
	West Millersport woll Station Wolf	NP
Lat/Long or UTM Coordinate	39.887116N 32.566513W	
USGS Quad Name	Millers port	
County	Fait Field	
Township	Liberty TIEN RISW	
Section and Subsection	S6 SE	
Hydrologic Unit Code	050600011701 Pawlaw Creek	
Site Visit	9-26-2017	
National Wetland Inventory Map	PEM IA	
Ohio Wetland Inventory Map	NA	
Soil Survey	Pe-Pewamosity day loain	
Delineation report/map	see Ecdarical Resources Inventory Rep	NT.

Name of Wetland: Wetland	
Wetland Size (acres, hectares):	0,335 acre
Sketch: Include north arrow, relationsh	nip with other surface waters, vegetation zones, etc.
rower	
	Juliah Corn
(vol)	3001 soon
<u></u>	asel Deve
Lust	0 0 pipeline markel
Comments, Narrative Discussion, Just	
Soe Googleal R	Persicer Inventory Report
Final score : 15	Category:

Scoring Boundary Worksheet Wetland 1

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		
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.		
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.	/	
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.	V del	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		
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.		

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

Narrative Rating

Wetland 1

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

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

Wetland

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	YES	NO
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible	Go to Question 9a
		Category 3 status.	
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	(NO)
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO
	prevent erosion and the loss of aquatic plants, i.e. the wetland is	101-11 I to 1-11	
	partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible	Go to Question 9c
	Tariaward direct of direct hydrological controls:	Category 3 status	
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland	YES	NO
	border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"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.		
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant		
	native species can also be present?	Wetland is a Category	Go to Question 9e
		3 wetland	
		Go to Question 10	,
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be	Go to Question 10
		evaluated for possible	GO TO QUOCHOIN TO
		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	YES	(NO)
	characterized by the following description: the wetland has a sandy	Wetland is a Category	Go to Question 11
	substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	3 wetland.	
	gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	present). The Ohio Department of Natural Resources Division of		
	Natural Areas and Preserves can provide assistance in confirming this		
11	type of wetland and its quality. Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
	dominated by some or all of the species in Table 1. Extensive prairies		San
	were formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	evaluated for possible Category 3 status	Quantitative Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 5 status	rainig
	Montgomery, Van Wert etc.).	Complete Quantitative	
		Rating	

Table 1. Characteristic plant species

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

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

Site: Wetlan	ndl	Rater(s): BLeopold		Date: 9/26//7
3	Metric 1. Wetland A	rea (size).		
max 6 pts. subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to < <1.1 colors (0.04 to <0.1 acres (0.04ha) (0 pts)) (0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts) (0.12ha) (1 pt)		
1 3	Metric 2. Upland bu	ffers and surroundi	ng land use.	
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	m (164ft) or more around wetland per 25m to <50m (82 to <164ft) around v e 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) erage. ife area, etc. (7) prest. (5) ervation tillage, new fallor	w field. (3)
7 10	Metric 3. Hydrology	<i>1</i> .		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) 			

Site:		weffand Rater(s):	BLee	polet	Date:	9/26/18
subs	13 total first pa				į.		e ^r
0	13	Metric 5. Special Wetland	ds.				
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water is	estricted ings) (10 atened of fowl hat 1 Qualita	l hydrolo 0) or endan oitat or u ative Ra	ngy (5) ngered species (10) Isage (10) ting (-10)		
] —	15	Metric 6. Plant communi	ties,	, inte	erspersion, microto	opograp	ohy.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vege	tation C	ommunity Cover Scale		
		Score all present using 0 to 3 scale.		0	Absent or comprises <0.1ha (0.24	471 acres) co	ntiguous area
		Aquatic bed		1	Present and either comprises sm		
		l Emergent			vegetation and is of moderate of		nprises a
		Shrub			significant part but is of low qua		
		Forest		2	Present and either comprises sig		
		Mudflats			vegetation and is of moderate of	quality or com	prises a small
		Open water		2	part and is of high quality		o of wetlends
		Other		3	Present and comprises significan		e, or wetland's
		6b. horizontal (plan view) Interspersion.			vegetation and is of high quality	<u>, , , , , , , , , , , , , , , , , , , </u>	***************************************
		Select only one.	Marra	itivo Do	scription of Vegetation Quality		
		High (5) Moderately high(4)		low	Low spp diversity and/or predomi	inance of non	native or
		Moderate (3)		.017	disturbance tolerant native spec		manife of
		Moderately low (2)	r	nod	Native spp are dominant compon		getation,
		Low (1)			although nonnative and/or distu		
		₩ None (0)			can also be present, and specie		
		6c. Coverage of invasive plants. Refer			moderately high, but generally	w/o presence	of rare
		to Table 1 ORAM long form for list. Add			threatened or endangered spp		
		or deduct points for coverage	- I	nigh	A predominance of native specie	s, with nonna	tive spp
		Extensive >75% cover (-5)			and/or disturbance tolerant nati		
		Moderate 25-75% cover (-3)			absent, and high spp diversity a		
		Sparse 5-25% cover (-1)			the presence of rare, threatene	d, or endange	ered spp
		Nearly absent <5% cover (0) Absent (1)	Mudf	lat and	Open Water Class Quality		
		6d. Microtopography.		0	Absent <0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47 a		
		Vegetated hummucks/tussucks		2	Moderate 1 to <4ha (2.47 to 9.88	B acres)	
		Coarse woody debris >15cm (6in)		3	High 4ha (9.88 acres) or more		
		Standing dead >25cm (10in) dbh		. 4			
		Amphibian breeding pools	Micro	*******	aphy Cover Scale		
				0	Absent Present year small amounts or if	more commo	
				1	Present very small amounts or if of marginal quality	more commo	ri .
				2	Present in moderate amounts, but	it not of bight	-st
				4	quality or in small amounts of h	-	
				3	Present in moderate or greater a		
				5	and of highest quality	ounto	
15					1 Green deality		*********

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

wetland 1 wol

,**.******		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 (10)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	if yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (10)	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		
	Metric 3. Hydrology	7	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	U	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	15	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

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Wetland Categorization Worksheet $\omega \phi$

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3,	YES Wetland is categorized as a	NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding 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
4, 6, 7, 8a, 9d, 10	Category 3 wetland		assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions:	YES Wetland should be	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
Narrative Rating Nos. 1, 8b, 9b, 9e, 11	evaluated for possible Category 3 status		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 greater than the Category 2 scoring threshold (including 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 a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not 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	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.

	Fina	I Category	
Choose one	(Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Bill Leopold
Date: 9-29-2017
Affiliation: Stantec
Address: 11687 Lebanon Rd Cincinnati
Phone Number: 513-619-6461
e-mail address: bill. leopold @ Startec.com
Name of Wetland: Withand 2
Vegetation Communit(ies):
HGM Class(es): Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
West Miller part Grand Brive Woz 7 WA WOZ 7
Lat/Long or UTM Coordinate 39. 886726ル 82. 5667/1ル
USGS Quad Name Millers part
County Fairfield
Township Liberty TIGN R18W
Section and Subsection S6 SE
Hydrologic Unit Code 050600011701 Pawfaw Clack
Site Visit 9-26-2017
National Wetland Inventory Map PEM 1 A
Ohio Wetland Inventory Map
Soil Survey Re-Pewamo silty day loam Delineation report/map see Good sical Resources Inventory Report
see Goodsgical Kesourses Anventury Report

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Fineline Pipeline Markel CORN CORN Spect France Spect France Pare x - 5004 Near	ketch: Include nort	h arrow, relations	ship with other su	டாட் rface waters, vegetat	ion zones, etc.
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see Ecological Resources Inventory Report nal score: H Category: 1		, i			

Wetland 2

Scoring Boundary Worksheet 202

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Vandaria de la companio del companio de la companio del companio de la companio del companio de la companio de la companio de la companio del companio de la companio della companio de la companio della	
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.	Company of the Control of the Contro	
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.	1	
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.		
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		And the second s
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.		

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

Narrative Rating 202

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

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

wetland 2 woz

Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh? Wetland should be evaluated for possible Category 3 status. Go to Question 9a				
diameters greater than 45cm (17.7in) obh? Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? 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? 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 charactered as an "esturaine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, or those dominated by submersed aguatic vegetation. 9d Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species within alto year to be present? Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities? Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? Lake Plain Sand Prairies (Oak Openings) is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be evaluated for possible Category 3 status Go to Question 10 YES NO Wetland should be evaluated for possible Category 3 status Go to Question 10 YES NO Wetland should be evaluated for possible Category 3 status Go to Question 11 The little of the possible Category 3 status Go to Question 11 Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Tabl	8b	50% or more of the cover of upper forest canopy consisting of		New Columbia
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Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? Go to Question 9b Go to Question 10				
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and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.). Complete Quantitative		Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),		
Rating		Montgomery, Van Wert etc.).		
		Attended and the second and the seco	Rating	

	Table 1.	Characteristic	plant species
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invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellin
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	· .	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix Iaricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		. Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		3
	Solidago ohioensis	2		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site:	We-	Hand 2		Rater(s): BLeopole	W. Comments	Date: 9/26/17
	M	etric 1.	Wetland A	rea (size).		·
max 6 pts.	subtotal Sel	>50 ad 25 to < 10 to < 3 to <1 0.3 to	class and assign scores (>20.2ha) (6 pts) (50 acres (10.1 to <20 classes (4 to <10.1 to <0 classes (4 to <10.1 to <0 classes (4 to <4ha) <3 acres (0.12 to <4ha) <0 classes (0.04 to <0 classes (0.04 to <0 classes (0.04ha) (0 pts)	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)		
	2 M	etric 2.	Upland bu	ffers and surroun	ding land use.	•
max 14 pts.		WIDE. MEDIL NARR VERY Intensity of s VERY LOW. MODE	Buffers average 50r JM. Buffers average OW. Buffers average NARROW. Buffers a surrounding land use. LOW. 2nd growth or Old field (>10 years) RATELY HIGH. Res	telect only one and assign score. In (164ft) or more around wetland 25m to <50m (82 to <164ft) aroun 10m to <25m (32ft to <82ft) around wetl verage <10m (<32ft) around wetl Select one or double check and older forest, prairie, savannah, w shrub land, young second growt idential, fenced pasture, park, co en pasture, row cropping, mining	perimeter (7) and wetland perimeter (4) and wetland perimeter (1) land perimeter (0) average. vildlife area, etc. (7) th forest. (5) aservation tillage, new fall	
7	9 M		Hydrology			
max 30 pts.	3c.	High p Other Precip Seaso Pereni Maximum wa >0.7 (2 0.4 to <0.4m Modification	nal/Intermittent surfac nial surface water (lak ater depth. Select on 27.6in) (3) 0.7m (15.7 to 27.6in) (<15.7in) (1)	ce water (3) te or stream) (5) 3 ly one and assign score. (2) cregime. Score one or double cl	Part of wetland/u Part of riparian of Duration inundation/sa Semi- to perman Regularly inunda Seasonally inun Seasonally satu neck and average.	ain (1) //lake and other human use (1) //lake and other human use (1) //pipeland (e.g. forest), complex (1) //pipeland corridor (2) //pipeland corridor (3)
		Recov Recov	ered (7)	ditch tile dike weir stormwater input	point source (no filling/grading road bed/RR tra dredging other	
3	12 1	letric 4.	Habitat Al	teration and Deve	lopment.	
max 20 pts.		None of Recovery Recovery Recent Habitat development Very good Moder Fair (3	or none apparent (4) ered (3) ering (2) t or no recovery (1) elopment. Select only ent (7) lood (6) (5) ately good (4)) o fair (2)	e or double check and average. r one and assign score.		
	4c.	Habitat alter None Recov		Check all disturbances observed mowing grazing clearcutting	shrub/sapling re	moval atic bed removal
	ubtotal this page			selective cutting woody debris removal toxic pollutants	dredging farming nutrient enrichm	ent
last revised	1 February 2	uu1 jjm				

Site:	We	Hand 2	Rater(s):	BLe	spold	Date:	9/26/17
	רו				V		
SU	btotal first pa	ge					
0	12	Metric 5. Special W	etlands.				
max 10 pts.	subtotal	I Che <u>ck all</u> that apply and score as inc	icated.				
		Bog (10)					
		Fen (10) Old growth forest (10)					
		Mature forested wetland (5	•				
		Lake Erie coastal/tributary		-			
		Lake Erie coastal/tributary Lake Plain Sand Prairies (gy (5)		
		Relict Wet Prairies (10)	oun opomigo, (-,	·		
		Known occurrence state/fe					
		Significant migratory songli Category 1 Wetland. See			- , ,		
		, <u> </u>			-	noara	nhv
7	14	Metric 6. Plant com	imumues	, mie	erspersion, inicroto	pogra	pny.
max 20 pts.	subtotal] 6a. Wetland Vegetation Communitie	s Vege	etation C	ommunity Cover Scale		
		Score all present using 0 to 3 scale.	J. 1091	0	Absent or comprises <0.1ha (0.24	171 acres) cr	ontiguous area
		Aquatic bed		1	Present and either comprises small		
		Emergent Shrub			vegetation and is of moderate q significant part but is of low qua	-	nprises a
		Forest		2	Present and either comprises sign		of wetland's
		Mudflats			vegetation and is of moderate q		
		Open water			part and is of high quality	 	
	•	OtherOther		3	Present and comprises significan vegetation and is of high quality	-	e, of wetland's
		6b. horizontal (plan view) Interspers Select only one.	<u></u>	···	vegetation and is of high quality		
		High (5)	Narr	ative Des	scription of Vegetation Quality		
		Moderately high(4)		low	Low spp diversity and/or predomi		inative or
		Moderate (3) Moderately low (2)		mod	disturbance tolerant native speci Native spp are dominant compon		
		Low (1)		,,,ou	although nonnative and/or distu		-
		None (0)			can also be present, and specie		
		6c. Coverage of invasive plants. Re			moderately high, but generally w	w/o presence	of rare
		to Table 1 ORAM long form for list. or deduct points for coverage		high	threatened or endangered spp A predominance of native species	s with nonna	ative spp
		Extensive >75% cover (-5)			and/or disturbance tolerant nati		
		Moderate 25-75% cover (-			absent, and high spp diversity a		
		Sparse 5-25% cover (-1)			the presence of rare, threatener	d, or endang	ered spp
		Nearly absent <5% cover Absent (1)		fiat and (Open Water Class Quality		
		6d. Microtopography.	<u></u>	0	Absent <0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47 ac		
		U Vegetated hummucks/tuss U Coarse woody debris >15		3	Moderate 1 to <4ha (2.47 to 9.88	acres)	
		O Standing dead >25cm (10	· · · —	<u> </u>	High 4ha (9.88 acres) or more		
		Amphibian breeding pools		otopogra	aphy Cover Scale		
				0	Absent		
				1	Present very small amounts or if of marginal quality	more commo	חנ
				2	Present in moderate amounts, bu	it not of high	 est
			_		quality or in small amounts of h		
				3	Present in moderate or greater ar	nounts	
	Ī				and of highest quality		

 ${\bf End\ of\ Quantitative\ Rating.\ Complete\ Categorization\ Worksheets.}$

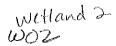
ORAM Summary Worksheet

Wetland 2

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size		
Ü	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	7	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	٥	
	Metric 6. Plant communities, interspersion, microtopography		
	TOTAL SCORE	14	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet woz



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

Final Category						
Choose one	Category 1	Category 2	Category 3			
		on the state of th	_			

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Bill Leopo	d and a second	
Deter	7-2017	
Affiliation:	itec.	
Address: 1169	7 Lebanon Rd Cincinnati OH 452	41
Phone Number:	-619-6461	
	ill. Leopold a Stantec.com	
Name of Wetland:	Wetland 3	
Vegetation Communit(ies):	PEM	
HGM Class(es): Depless	ional	
Location of Wetland: include m	nap, address, north arrow, landmarks, distances, roads, etc.	
		- OHJOY
	t on Mesoport	
	west Millersport OH37	
	4.0	
	w 03	
	· ·	
Lat/Long or UTM Coordinate	39.336804N 32.568687tu	
USGS Quad Name	1 to 1	
County	Millersport	
Township	Liberty TIGN RIBW	
Section and Subsection	56 SE	
Hydrologic Unit Code	050600011701 Pawlaw Creek	
Site Visit	9-26-2017	
National Wetland Inventory Map	NA	
Ohio Wetland Inventory Map	MA	
Soil Survey	Pe-Pewano silty clay loan	
Delineation report/map	See Ecological Resources Inventory Re	port

Wetland Size (acres, hectares):	and 3 0.085 acre	
	onship with other surface waters, vegetation	on zones. etc.
old field	1-055	POND Grave
5	field	101 1 6
DITCH		to cee
upf	/].	in the car
	*-	into It Is stored
	24	ob it the show
	(B)	X DITCH
	Early successimal decidents	· ·
		15907
CORN		
7		
Comments, Narrative Discussion,	Instification of Cotogony Changes	
		10 t
see Ecolog	real Resources Invent	tory report
, v		
		100

Scoring Boundary Worksheet wo3

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
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.	V	
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.	/	
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.	/	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		
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.	~	

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

Narrative Rating

wetland 3 wo3

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

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

8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	NO
	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?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
Эа	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
b	Does the wetland's hydrology result from measures designed to	YES YES	NO NO
	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?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
Эс	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	YES Go to Question 9d	NO Go to Question 10
	"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.		
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
Эе	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO /
	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	Wetland is a Category 3 wetland.	Go to Question 11
	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	Go to Question 11	
11	type of wetland and its quality. Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO
	dominated by some or all of the species in Table 1. Extensive prairies	1,25	0
	were formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	evaluated for possible Category 3 status	Quantitative Rating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristic plant species

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

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

Site:	Wetl	and	3		Rater(s):	BLEODIL	1	Date: 9-26-	17
0	0	Ме	etric 1.	Wetland	Area (size	e).			
max 6 pts	subtotal		>50 ac 25 to < 10 to < 3 to <1 0.3 to < 0.1 to <	res (0.04ha) (0 p	pts) <20.2ha) (5 pts) 0,1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) to <0.12ha) (1 pt) pts)				
1	1	Me	etric 2.	Upland b	outters an	d surroun	aing iana	use.	
max 14 pts	subtotal		WIDE. MEDIU NARRO VERY Intensity of s VERY LOW. MODE	Buffers average IM. Buffers average NARROW. Buffers average NARROW. Buffer urrounding land LOW. 2nd grown Old field (>10 ye RATELY HIGH.	50m (164ft) or mo age 25m to <50m or rage 10m to <25n ers average <10m use Select one of the or older forest, p ars), shrub land, y Residential, fence	e and assign score around wetland (82 to <164ft) around (32ft to <82ft) around wetland (<32ft) around wetland (compared to the compared to the	perimeter (7) nd wetland perime und wetland perime and perimeter (0) I average. vildlife area, etc. (7) h forest. (5) nservation tillage,	nter (4) neter (1) 7) new fallow field. (3)	
11	12	Μe		Hydrolo					
max 30 pts	s. subtotal	3c.	High p Other Precip Seaso Pereni Maximum w >0.7 (2 0.4 to <0.4 m Modification None Recov Recov	ater depth. Select 27.6in) (3) 0.7m (15.7 to 27. (<15.7in) (1) s to natural hydro	urface water (3) r (lake or stream) (ct only one and ass 6in) (2) clogic regime. Scc (12) Check all d ditch tile dike weir	5) 3	d. Duration inund Semi-to Regular Season: Season: heck and average ed point so filling/gr	urce (nonstormwater) ading d/RR track	mplex (1) dbl check ated (4)
9,5	5 21.5	M	etric 4.	Habitat		and Deve			
max 20 pl	s subtotal	4b.	None Recov Recov Recer Habitat dev Excell Very of Good Mode Fair (Poor Poor Habitat alte	or none apparentered (3) vering (2) nt or no recovery elopment. Selectent (7) good (6) (5) rately good (4) 3) to fair (2) (1)	e or double check t (9) Check all common graziclear select wood	ign score. and average. listurbances observing	shrub/s herbace sedime dredgin farming	g	

7

last revised 1 February 2001 jjm

Site:	wetland	3	Rater(s):	BLE	egovid	Date: 9-26-17
0	2/5 subtotal first page 2/5 Met	tric 5. Special \	<i>N</i> etlands.			
max 10 pts.	subtotal Check	all that apply and score as i Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state Significant migratory sor Category 1 Wetland. Se	(5) ry wetland-unrestr ry wetland-restrict s (Oak Openings) /federal threatene ngbird/water fowl h	ed hydro (10) d or enda nabitat or	angered species (10) usage (10)	
4	25.5 Met	tric 6. Plant co	mmunitie	s, int	erspersion, microt	opography.
max 20 pts.	subtotal 6a. W	etland Vegetation Communi	ties. Ve	getation	Community Cover Scale	
		all present using 0 to 3 scale		0	Absent or comprises <0.1ha (0.2	2471 acres) contiguous area
	E	Aquatic bed Emergent Shrub	_	1	Present and either comprises so vegetation and is of moderate significant part but is of low qu	nall part of wetland's quality, or comprises a
		Forest Mudflats	_	2	Present and either comprises sign vegetation and is of moderate	gnificant part of wetland's
	6b. ho	Open water Other orizontal (plan view) Interspe	rsion	3	part and is of high quality Present and comprises significa vegetation and is of high quality	
		only one.	_			
		High (5)	Nai		escription of Vegetation Quality	
	-	Moderately high(4) Moderate (3)		low	Low spp diversity and/or predom disturbance tolerant native spe	
		Moderately low (2) Low (1) None (0) overage of invasive plants. If		mod	Native spp are dominant compo although nonnative and/or dist can also be present, and spec moderately high, but generally threatened or endangered spp	nent of the vegetation, urbance tolerant native spp ies diversity moderate to w/o presence of rare
		uct points for coverage Extensive >75% cover (-1) Moderate 25-75% cover Sparse 5-25% cover (-1)	(-3)	high	A predominance of native species and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten	es, with nonnative spp tive spp absent or virtually and often, but not always,
	_	Nearly absent <5% cove		151 4	i Bossiu i a a a subs	
	٠. ا	Absent (1)	Mu		Open Water Class Quality	
		icrotopography all present using 0 to 3 scale	_	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 a	ocres)
		Vegetated hummucks/tu		2	Moderate 1 to <4ha (2.47 to 9.8	
	_	Ocarse woody debris >1		3	High 4ha (9.88 acres) or more	
	E	J Standing dead >25cm (1 J Amphibian breeding poo	0in) dbh	rotopog	graphy Cover Scale	
	_		=	0	Absent	
				1	Present very small amounts or it of marginal quality	
			_	2	Present in moderate amounts, b quality or in small amounts of	nighest quality
200	7			3	Present in moderate or greater a and of highest quality	amounts

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

wetland 3 wo3

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3,
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology		
	Metric 4. Habitat	9,5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	4	N .
	TOTAL SCORE	25,5	Category based on scor breakpoints

 ${\bf Complete\ Wetland\ Categorization\ Worksheet}.$



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	NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding 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 overcategorized 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	(Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not 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	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, loca 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.

17-0-0-		al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

WEST MILLERSPORT STATION EXPANSION PROJECT, FAIRFIELD COUNTY, OHIO

D.3 HHEI DATA FORM



A EP SITE NUMBER S	sport Station Expa-	Score (sum of metrics 1, 2, 3): DEALINAGE AREA (mi²)
ENGTH OF STREAM REACH (ft) 200 DATE 9-26-17 SCORER 6L	LAT. 39.33656 LONG. 32.51	RIVER CODE RIVER MILE
	A. C.	anual for Ohio's PHWH Streams" for Instruction
		☐ RECOVERING ☐ RECENT OR NO RECOVERY
MODIFICATIONS:		
. SUBSTRATE (Estimate percent of ev	very type of substrate present. Check	ONLY two predominant substrate TYPE boxes
(Max of 40). Add total number of signifi	cant substrate types found (Max of 8). F	Final metric score is sum of boxes A & B. PERCENT
BLDR SLABS [16 pts]	SILT [3 pt	I Doi
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]		TRITUS [3 pts] Subs
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ GRAVEL (2-64 mm) [9 pts]	CLAY or H	HARDPAN [0 pt]
SAND (<2 mm) [6 pts]	10 ARTIFICIA	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _	(A) /	(B) / A+
SCORE OF TWO MOST PREDOMINATE SUB		AL NUMBER OF SUBSTRATE TYPES:
. Maximum Pool Depth (Measure the	maximum pool depth within the 61 m	peter (200 ft) evaluation reach at the time of Pool I
evaluation. Avoid plunge pools from ro > 30 centimeters [20 pts]		neck ONLY one box): Max 10 cm [15 pts]
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 NO WAT	5 pts] TER OR MOIST CHANNEL [0 pts]
COMMENTS	M	AXIMUM POOL DEPTH (centimeters):
BANK FULL WIDTH (Measured as th		(Check ONLY one box): Bani
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		- 1.5 m (> 3' 3" - 4' 8") [15 pts] Wid (≤ 3' 3") [5 pts] Wid
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]		23 2
COMMENTS BY 8.4' y 1.8'	A\	VERAGE BANKFULL WIDTH (meters)
	This information <u>must</u> also b	e completed
RIPARIAN ZONE AND FLOOI RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River I FLOODPLAIN QUALITY	Left (L) and Right (R) as looking downstream쬬
L R (Per Bank) Wide >10m	L R (Most Predominant per Mature Forest, Wetland	
Moderate 5-10m	Immature Forest, Shrub	-
☐ 图、Narrow <5m	Residential, Park, New I	Field Open Pasture, Row Crop
None COMMENTS	Fenced Pasture	Mining or Construction
	valuation) (Check ONLY one box):	Moist Channel, isolated pools, no flow (Intermittent)
Stream Flowing Subsurface flow with isolated procomments		Dry channel, no water (Ephemeral)
Stream Flowing Subsurface flow with isolated processing COMMENTS		Dry channel, no water (Ephemeral)

DDITIONAL STREAM INFORMATION (This Information Must Also be Comp	eleted):
QHEI PERFORMED? - Yes No QHEI Score(If	Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: CWH Name: DEWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name: Mules got NRCS S ounty: Your Field Township / Gity:	koil Map Page: NRCS Soll Map Stream Order
MISCELLANEOUS	7-4
V	122
ase Flow Conditions? (Ý/N): Date of last precipitation: 9-19-17	Quantity: Ord 7
hotograph Information: 25-up, 24-dam 25-substa	ds 26- pool
levated Turbidity? (Y/N): N Canopy (% open): 1	. 22.42
/ere samples collected for water chemistry? (Y/N): (Note lab sample n	o. or id. and attach results) Lab Number:
eld Measures: Temp (°C) Dissolved Oxygen (mg/l) pH	(S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the stream (Y/N) If not, please exp	plain:
dditional comments/description of pollution impacts: 24 heavy gilled	atum, substrators damp, comple
ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin	overtebrates Observed? (Y/N) Voucher? (Y/N)
omments Regarding Biology. Cata worder larger, baby such	st, minnous, stidelabactes in pul
DRAWING AND NARRATIVE DESCRIPTION OF STR	REAM REACH (This <u>must</u> be completed):
Include Important landmarks and other features of Interest for site eval	uation and a narrative description of the stream's location
Old Field	N organis Trace the true conn
	William William
LOW Wang	Marin (35) 29 vegetal
The same of the sa	Jarren Justa J Co
Regular S	Nation Repaired September 199
CORN CORN POST	CORN CORN

Appendix C Agency Coordination Letters



In reply refer to 2017-FAI-40508

December 20, 2017

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

RE: West Millersport Station Safety Fence Project, Walnut Township, Fairfield County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on November 29, 2017 regarding the proposed West Millersport Station Safety Fence Project, Walnut Township, Fairfield County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C.470 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the 23.9 ha (59.2 ac)* West Millersport Station Safety Fence Project in Walnut Township, Fairfield County, Ohio by Weller & Associates, Inc. (2017).

A literature review, visual inspection, surface collection, and shovel probe excavation was completed as part of the investigations. Two (2) previously inventoried Ohio Archaeological Inventory (OAI) sites are located within the project area. OAI#33FA1887 and 33FA1888 are both prehistoric lithic scatters identified in 2012 by Weller & Associates, Inc. as part a Phase I Archaeological Investigation for AEP access corridors in Franklin, Licking, and Fairfield Counties. The sites were re-identified during surface collection and combined into one site, which will be identified as 33FR1887. OAI#33FA1888 will be reissued for a future site location. Additional artifacts identified during surface collection include Primary and Secondary thinning flakes, a core, and a Brewerton Side Notched projectile point repurposed as a hafted scrapper. OAI#33FR1887 (and the old 33FR1888) were both found to be not eligible for listing in the National Register of Historic Places (NRHP) in 2012 and that recommendation remains. No additional archaeological work is recommended on this site.

Eighteen (18) new OAI sites were identified as part of this survey. OAI#33FA2324-33FA2327, 33FA2329-33FA2332, 33FA2335, 33FA2338, 33FA2339, and 33FA2341 are prehistoric lithic scatters. OAI#33FA2328, 33FA2333, 33FA2334, 33FA2336, 33FA2337, and 33FA2340 are prehistoric isolated finds. None of the sites are recommended as eligible for listing in the NRHP. Based on the information provided, we agree the archaeological sites are not eligible for listing in the NRHP and no further archaeological work is necessary.

Please complete your associated site inventory as soon as possible. Project associated inventory should be completed and submitted concurrent with submission of your survey documentation for our comments. Following IForm submission procedure, please send a notification to the survey manager (archsurvey@ohiohistory.org, or directly at beberhard@ohiohistory.org) so that the manager is aware your inventory is prepared, complete, and ready for review.

RPR Serial No: 1071406, 1071407

Mr. Ryan J. Weller Page 2 December 20, 2017

The following comments pertain to the *History/Architecture Investigations for the 23.9 ha (59.2 ac)* West Millersport Station Safety Fence Project in Walnut Township, Fairfield County, Ohio by Weller & Associates, Inc. (2017).

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

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

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

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

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

Sincerely

Krista Horrocks, Project Reviews Manager

Resource Protection and Review

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