

Legal Department

American Electric Power 1 Riverside Plaza Columbus, OH 43215-2373 AEP.com

June 1, 2018

Hector Garcia Christen M. Blend Senior Counsel – Regulatory Services (614) 716-3410 (P) (614) 716-1915 (P) hgarcia1@aep.com cmblend@aep.com Chairman Asim Z. Haque Ohio Power Siting Board 180 East Broad Street Columbus, Ohio 43215

Re: In the Matter of the Letter of Notification for the East Lima Station Expansion Project Case No. 18-0906-EL-BLN Request for Expedited Treatment

Dear Chairman Haque,

Attached please find a copy of the Letter of Notification (LON) for the above-referenced project by AEP Ohio Transmission Company, Inc. (AEP Ohio Transco). This filing and notice is in accordance with O.A.C. 4906-6-05.

A copy of this filing will also be submitted to the executive director or the executive director's designee. A copy will be provided to the Board Staff via electronic message. The Company will also submit a check in the amount of \$2,000 to the Treasurer, State of Ohio, for Fund 5610 for the expedited fees.

If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

/s/ Christen Blend

Christen Blend (0086881), Counsel of Record Hector Garcia (0084517) Counsel for AEP Ohio Transmission Company, Inc.

cc. John Jones, Counsel OPSB Staff Jon Pawley, OPSB Staff

Letter of Notification For East Lima Station Expansion Project



PUCO Case No. 18-0906-EL-BLN

Submitted to:

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

Submitted by: AEP Ohio Transmission Company, Inc.

June 1, 2018

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.'s East Lima Station Expansion Project

4906-6-05

AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco") is providing the following information to the Ohio Power Siting Board ("OPSB") in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

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

AEP Ohio Transco proposes to expand the existing East Lima Station in Allen County, Ohio ("Project"). The existing 10-acre fenced area is located on an approximately 53-acre property owned by Ohio Power Company. The fenced expansion area will cover approximate 2.4 additional acres on the 53-acre property. The fence expansion is due to upgrades in substation equipment. Figure 1 shows the existing fence and expansion area.

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

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

The Project has been assigned PUCO Case No. 18-0906-EL-BLN

B(2) Statement of Need

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

The work at East Lima Station causing the fence expansion addresses multiple asset renewal drivers. The fence expansion is most directly impacted by the installation of new control house modules at the station that will replace the existing control house due to age, maintenance, and flooding risks. This specific supplemental work has not been submitted to PJM because it does not have any effect on system modeling or operational ratings changes. There are, however, also $345 \, \text{kV}$ switch replacements included within the Project scope, which are necessary to support PJM project b2969. The existing East Lima station and associated lines are referenced on pages 65-66 of Ohio Power Company's 2018 LTFR and attached as Appendix B.

AEP Ohio Transmission Company, Inc. June 2018

East Lima Station Expansion Project

B(3) Project Location

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

The location of the Project in relation to existing transmission lines and stations is shown on Figure 2. The Project impacts the following existing facilities:

- East Lima Station.
- East Lima-Haviland 138 kV transmission line, East Lima-N. W. Lima 138 kV transmission line, East Lima-Ford 138 kV transmission line, Thayer Road-East Lima 138 kV transmission line, East Lima-Lima 138 kV transmission line, East Lima-S. W. Lima 354 kV transmission line, East Lima-Marysville 345 kV transmission line, East Lima-N. Woodcock 138 kV transmission line, East Lima-Fostoria Ctl 345 kV transmission line, East Lima-Robison Park 345 kV transmission line, and East Lima-Sorenson 345 kV transmission line.

B(4) Alternatives Considered

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

The proposed Project is an expansion of an existing transmission station on fallow land and therefore was determined to have minimal or no socioeconomic, ecological, construction, or engineering impacts. The expansion site was chosen due to the suitable geography proximity to 138kv & 345kV transmission lines and the presence of road access for construction and maintenance crews. AEP Ohio Transco's engineering and siting consultants thus concluded that the expanded East Lima site at the recommended location for the upgraded substation is the most appropriate option for the proposed Project.

Selection of an alternative site in the region would result in considerably greater socioeconomic and environmental impacts, as it would necessitate the re-route and extension of various transmission lines in order to reach a new transmission substation.

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.

AEP Ohio Transco informs affected property owners and tenants about its projects through several different mediums. Within seven days after filing this LON, AEP Ohio Transco will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements under O.A.C. 4906-6-08(A)(1)-(6). Further, AEP Ohio Transco mailed a letter, via first class mail, to affected landowners, tenants, contiguous owners, and any other landowner AEP Ohio Transco approached for an

AEP Ohio Transmission Company, Inc. June 2018

East Lima Station Expansion Project

easement necessary for the construction, operation, or maintenance of the facility. The letter complies with all the requirements of O.A.C. 4906-6-08(B). AEP Ohio Transco also maintains a website (http://aeptransmission.com/ohio/), which provides the public access to an electronic copy of this LON and the public notice for this LON. A paper copy of the LON will be served to the public library in each political subdivision affected by this proposed Project. Lastly, AEP Ohio Transco retains ROW land agents who discuss project timelines, construction, and restoration activities with affected owners and tenants.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in third quarter of 2018, and the anticipated in-service date is January 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.

Figures 1 and 2 provide the proposed Project area on a map of 1:24,000-scale. Figure 1 shows the project area on the United States Geologic Service (USGS) 7.5-minute topographic maps of the Cairo (1984) quadrangle. Figure 2 shows the project area on recent aerial photography, as provided by Bing Maps. To access the Project location from Columbus, take I-70 West and follow signs for interstate 70 W/Dayton. In approximately six miles take exit 93 onto I-270 N toward Cleveland and travel nine miles. Take exit 17B and follow signs toward US-33 W and travel approximately 45 miles. Take exit onto OH-117 W toward OH 366/Hunstsville/Lima and merge onto OH-117 W. Travel on OH-117 W for approximately 23 miles then turn right onto S Thayer Road and continue 5.4 miles. Turn left onto E Bluelick Road and travel 1.8 miles. Turn right onto Wolfe Road and East Lima Station will be on the right in approximately 1.2 miles. The approximate address is 4390 Wolfe Road Elida, OH 45807.

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.

No easements, options, or land use agreements are necessary to construct and operate the Project.

B(9) Technical Features

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

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

LETTER OF NOTIFICATION FOR EAST LIMA STATION EXPANSION PROJECT

June 1, 2018

The equipment and facilities to be installed within the Project area will include the following:

- 138kV Circuit Breakers (1)
- Relay Panels (23)
- 138kV Switches (4)
- 138kV Capacitive Voltage Transformer (CCVT) (9)
- 138kV Wave Traps (2)
- 138kV DICM (1)
- 345kV Switches- (3)
- 345kV Capacitive Voltage Transformer (CCVT) (3)

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.

This Project is not within 100 feet of any occupied residences or institutions; therefore, this section is not applicable.

B(9)(b)(ii)(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 \$4,000,000.

B(10) Social and Economic Impacts

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

B(10)(a) Operating Characteristics

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

The Project is within Bath Township in Allen County, Ohio. The 2.4-acre expansion area is completely within AEP Ohio's property boundary on agricultural and shrub land. No residences, institutions, or other sensitive land uses were identified within or adjacent to the Project footprint.

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.

AEP Ohio Transmission Company, Inc. June 2018 East Lima Station Expansion Project

The Project is expected to occupy approximately 1.9 acres of existing agricultural land used for row crops, as well as unused shrub land. The proposed expansion area is adjacent to the existing East Lima Station. Impacts to agricultural land are expected to be minimal. No agricultural district land is impacted.

B(10)(c) Archaeological and Cultural Resources

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

In August 2017, AEP Ohio Transco's consultant completed a Phase I Cultural Resource Management Investigation for the Project. No cultural resources were identified during that investigation. No significant resources that are older than 50 years of age or older were identified within the Project area. The cultural report will be provided to the OPSB Staff. No further work is deemed necessary for this Project.

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.

Once final design of the project is complete, including identification of access roads, a Notice of Intent will be filed with the Ohio Environmental Protection Agency for authorization of construction storm water discharges under General Permit OHC000004, because disturbance will exceed one acre. The Project is expected to impact less than 0.5 acre of delineated wetlands. A Pre-Construction Notification (PCN) will be submitted to the United States Army Corps of Engineers for approval under Nationwide Permit 12.

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.

An AEP Ohio Transco consultant prepared a Threatened and Endangered Species Report. The consultant coordinated with the USFWS and ODNR regarding special status species in the vicinity of the Project. No impacts to threatened or endangered species are expected. A copy of the coordination for the Project is included in the Wetland Delineation and Stream Assessment Report included as Appendix A.

B(10)(f) Areas of Ecological Concern

LETTER OF NOTIFICATION FOR EAST LIMA STATION EXPANSION PROJECT

June 1, 2018

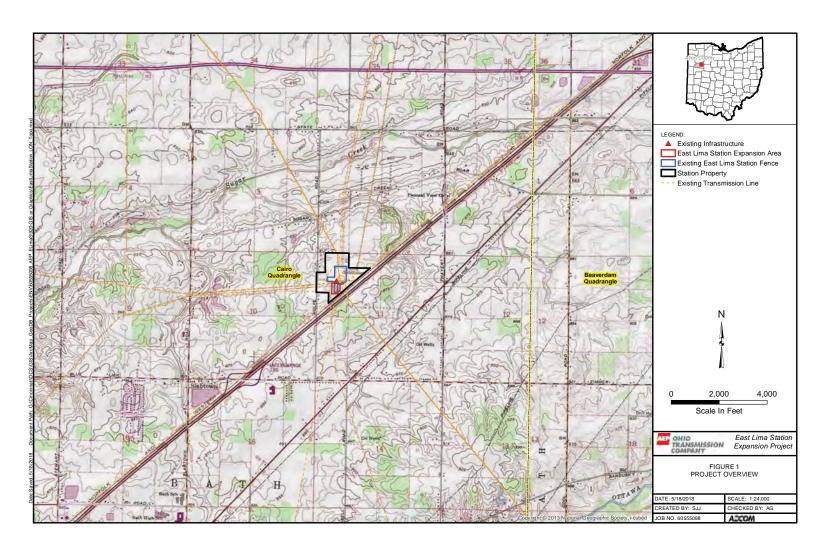
Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife 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 AEP Ohio Transco consultant prepared a Wetland Delineation and Stream Assessment Report. The Project is expected to impact less than 0.5 acre of delineated wetlands. A copy of the Wetland Delineation and Stream Assessment Report for the Project is included as Appendix A.

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.





LETTER OF NOTIFIC	ATION FOR EAST LIMA STATION EXPANSION PROJECT
June 1, 2018	
Appendix A	Wetland Delineation and Stream Assessment Report

EAST LIMA STATION EXPANSION PROJECT, ALLEN COUNTY, OHIO

WETLAND DELINEATION AND STREAM ASSESSMENT REPORT

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



Prepared by:



Project #: 60555098

April 2018



TABLE OF CONTENTS

1.0	INTR	ODUCTION	4
2.0	METH 2.1	HODOLOGY	
	2.2	STREAM CROSSINGS	8 9
3.0	3.2 3.3 3.4 3.5	WETLAND DELINEATION	10 11 12 13 13
4.0	SUM	MARY	20
5.0	REFE	RENCES	21



TABLES

Number	
TABLE 1	SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE EAST LIMA STATION
	EXPANSION PROJECT SURVEY AREA
TABLE 2	DELINEATED WETLANDS WITHIN THE EAST LIMA STATION EXPANSION
	PROJECT SURVEY AREA
TABLE 3	VEGETATIVE COMMUNITIES WITHIN THE PROJECT AREA
TABLE 4	ODNR AND USFWS LISTED SPECIES WITHIN ALLEN COUNTY, OHIO

FIGURES

Number

Overview Map
Soil Map Unit and National Wetland Inventory Map
Wetland Delineation and Stream Assessment Map
Vegetative Communities Assessment Map

APPENDICES

Number

APPENDIX A	U.S. Army Corps of Engineers Wetland Forms
APPENDIX B	OEPA Wetland ORAM Forms
APPENDIX C	OEPA HHEI Stream Forms
APPENDIX D	Delineated Features Photographs
APPENDIX E	Correspondence Letter from USFWS



LIST OF ACRONYMS and ABBREVIATIONS

AEP Ohio Transco American Electric Power Ohio Transmission Company

FAC Facultative

FACU Facultative upland

FACW Facultative wetland

GPS Global Positioning System

HHEI Headwater Habitat Evaluation Index

IBI Index of Biotic Integrity

NRCS Natural Resources Conservation Service

NWI National Wetlands Inventory

OBL Obligate wetland

ODNR Ohio Department of Natural Resources

OEPA Ohio Environmental Protection Agency

OHWM Ordinary high water mark

PEM Palustrine emergent wetland

PFO Palustrine forested wetland

PSS Palustrine scrub-shrub wetland

QHEI Qualitative Habitat Evaluation Index

ROW Right-of-way

UPL Upland

U.S. United States

USACE United States Army Corps of Engineers

USDA United States Department of Agriculture

USFWS United States Fish and Wildlife Service

USGS United States Geological Survey



1.0 INTRODUCTION

American Electric Power Ohio Transmission Company's (AEP Ohio Transco) is proposing to expand its existing East Lima Station in Allen County, Ohio. AEP requested that AECOM survey approximately 53 acres that includes the existing 10-acre fenced station and adjacent areas. The fenced expansion area will cover no more than 1.9 additional acres on the 53-acre property owned by AEP. The proposed Project is illustrated on Figure 1.

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

2.0 METHODOLOGY

The purpose of the field survey was to assess whether wetlands and other "waters of the U.S." exist within the approximately 53-acre Project survey area. Prior to conducting field surveys, digital and published county Natural Resources Conservation Service (NRCS) soil surveys, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, and U.S. Geological Survey (USGS) 7.5-minute topographic maps were reviewed as an exercise to identify the occurrence and location of potential wetland areas.

On September 26th, 2017, AECOM ecologists walked the Project survey area to conduct a wetland delineation and stream assessment. During the field survey, the physical boundaries of observed water features were recorded using sub-decimeter accurate Trimble Global Positioning System (GPS) units. The GPS data was imported into ArcMap GIS software, where the data was then reviewed and edited for accuracy.

2.1 WETLAND DELINEATION

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



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

2.1.1 SOILS

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

2.1.2 HYDROLOGY

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

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

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



2.1.3 VEGETATION

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

2.1.4 WETLAND CLASSIFICATIONS

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

- PEM Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.
- PFO Forested wetlands are characterized by woody vegetation that is 3 inches or more diameter at breast height (DBH), regardless of total height. These wetlands generally include an overstory of broad-leaved and needle-leaved trees, an understory of young saplings and shrubs, and an herbaceous layer.
- PSS Scrub/shrub wetlands are characterized by woody vegetation that is less than three inches
 DBH, and greater than 3.28 feet tall. The woody angiosperms (i.e., small trees or shrubs) in this
 broad leaved deciduous community have relatively wide, flat leaves that are shed annually during
 the cold or dry season.

2.1.5 OHIO RAPID ASSESSMENT METHOD v. 5.0

The Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method for Wetlands v. 5.0 (ORAM) was developed to determine the relative ecological quality and level of disturbance of a particular



wetland in order to meet requirements under Section 401 of the Clean Water Act. Wetlands are scored on the basis of hydrology, upland buffer, habitat alteration, special wetland communities, and vegetation communities. Each of these subject areas is further divided into subcategories under ORAM v. 5.0 resulting in a score that describes the wetland using a range from 0 (low quality and high disturbance) to 100 (high quality and low disturbance). Wetlands scored from 0 to 29.9 are grouped into "Category 1", 30 to 59.9 are "Category 2" and 60 to 100 are "Category 3". Transitional zones exist between "Categories 1 and 2" from 30 to 34.9 and between "Categories 2 and 3" from 60 to 64.9. However, according to the OEPA, if the wetland score falls into the transitional range, it must be given the higher Category unless scientific data can prove it should be in a lower Category (Mack, 2001).

Category 1 Wetlands

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

Category 2 Wetlands

Category 2 wetlands "...support moderate wildlife habitat, or hydrological or recreational functions," and as wetlands which are "...dominated by native species but generally without the presence of, or habitat for, rare, threatened or endangered species; and wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions." Category 2 wetlands constitute the broad middle category of "good" quality wetlands, and can be considered a functioning, diverse, healthy water resource that has ecological integrity and human value. Some Category 2 wetlands are lacking in human disturbance and considered to be naturally of moderate quality; others may have been Category 3 wetlands in the past, but have been degraded to Category 2 status.

Category 3 Wetlands

Wetlands that are assigned to Category 3 have "...superior habitat, or superior hydrological or recreational functions." They are typified by high levels of diversity, a high proportion of native species, and/or high functional values. Category 3 wetlands include wetlands which contain or provide habitat for threatened or endangered species, are high quality mature forested wetlands, vernal pools, bogs, fens, or which are scarce regionally and/or statewide. A wetland may be a Category 3 wetland because it exhibits one or all of the above characteristics. For example, a forested wetland located in the flood plain of a



river may exhibit "superior" hydrologic functions (e.g., flood retention, nutrient removal), but not contain mature trees or high levels of plant species diversity.

2.2 STREAM CROSSINGS

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

Stream assessments were conducted using the methods described in the OEPA's Methods for Assessing Habitat in Flowing Waters: Using OEPA's *Qualitative Habitat Evaluation Index* (Rankin, 2006) and in the OEPA's Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (OEPA, 2012).

2.2.1 OEPA QUALITATIVE HABITAT EVALUATION INDEX

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

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



2.2.2 OEPA PRIMARY HEADWATER HABITAT EVALUATION INDEX

Headwater streams are typically considered to be first-order and second-order streams, meaning streams that have no upstream tributaries (or "branches") and those that have only first-order tributaries, respectively. The stream order concept can be problematic when used to define headwater streams because stream-order designations vary depending upon the accuracy and resolution of the stream delineation. Headwater streams are generally not shown on USGS 7.5-minute topographic quadrangles and are sometimes difficult to distinguish on aerial photographs. Nevertheless, headwater streams are now recognized as useful monitoring units due to their abundance, widespread spatial scale and landscape position (Fritz, et al. 2006). Impacts to headwater streams can have a cascading effect on the downstream water quality and habitat value. The headwater habitat evaluation index (HHEI) is a rapid field assessment method for physical habitat that can be used to appraise the biological potential of most Primary Headwater Habitat (PHWH) streams. The HHEI was developed using many of the same techniques as used for QHEI, but has criteria specifically designed for headwater habitats. To use HHEI, the stream must have a "defined bed and bank, with either continuous or periodically flowing water, with watershed area less than or equal to 1.0 mi² (259 ha), <u>and</u> a maximum depth of water pools equal to or less than 15.75 inches (40 cm)" (OEPA, 2012).

Headwater streams are scored on the basis of channel substrate composition, bankfull width, and maximum pool depth. Assessments result in a score (0 to 100) that is converted to a specific PHWH stream class. Streams that are scored from 0 to 29.9 are typically grouped into "Class 1 PHWH Streams", 30 to 69.9 are "Class 2 PHWH Streams", and 70 to 100 are "Class 3 PHWH Streams". Technically, a stream can score relatively high, but actually belong in a lower class, and vice-versa. According to the OEPA, if the stream score falls into a class and the scorer feels that based on site observations that score does not reflect the actual stream class, a decision-making flow chart can be used to determine appropriate PHWH stream class using the HHEI protocol (OEPA, 2012). Evidence of anthropogenic alterations to the natural channel will result in a "Modified" qualifier for the stream.

Class 1 PHWH Streams: Class 1 PHWH Streams are those that have "normally dry channels with little or no aquatic life present" (OEPA, 2012). These waterways are usually ephemeral, with water present for short periods of time due to infiltration from snowmelts or rainwater runoff.

Class 2 PHWH Streams: Class 2 PHWH Streams are equivalent to "warm-water habitat" streams. This stream class has a "moderately diverse community of warm-water adapted native fauna either present seasonally or on an annual basis" (OEPA, 2012). These species communities are composed of vertebrates (fish and salamanders) and/or benthic macroinvertebrates that are considered pioneering, headwater temporary, and/or temperature facultative species.

9



Class 3 PHWH Streams: Class 3 PHWH Streams usually have perennial water flow with cool-cold water adapted native fauna. The community of Class 3 PHWH Streams is comprised of vertebrates (either cold water adapted species of headwater fish and or obligate aquatic species of salamanders, with larval stages present), and/or a diverse community of benthic cool water adapted macroinvertebrates present in the stream continuously (on an annual basis).

2.3 THREATENED AND ENDANGERED SPECIES

AECOM conducted a rare, threatened, and endangered species review and general field habitat surveys within areas crossed by the Project survey area. This report will be used to assist AEP Ohio Transco's efforts to avoid impacts to threatened and endangered species potentially present in the survey area during construction activities. The first phase of the survey involved a review of online lists of federal and state species of concern. In addition to the review of available literature, AECOM submitted coordination letters to the USFWS and ODNR – Division of Soil and Water Resources (DSWR) requesting records of species of concern that were reported within close proximity to the Project and also soliciting comments on the Project. A response letter from USFWS was received on September 18th, 2017; and a response from ODNR has not yet been received to date. AECOM field ecologists conducted a general habitat survey in conjunction with the stream and wetland field survey on September 26th, 2017.

3.0 RESULTS

Within the Project survey area, AECOM delineated eight wetlands, one stream, and one pond within the Project survey area. The delineated features are discussed in detail in the following sections.

3.1 WETLAND DELINEATION

3.1.1 Preliminary Soils Evaluation

Soils in the delineated wetland were observed and documented as part of the delineation methodology. According to the USDA/NRCS Web Soil Survey of Allen County, Ohio (NRCS 2016) and the NRCS Hydric Soils Lists of Ohio, three soil series are mapped within the Project survey area (NRCS 2017). Within these soil series, four soil map units are listed as hydric. Table 1 provides a detailed overview of all soil series and soil map units within the Project survey area. Soil map units located within the Project survey area are shown on Figure 2.

East Lima Station

Expansion Project



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

Soil Series	Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Blount	Ble1A1	Blount silt loam, end moraine, 0 to 2 percent slopes	End moraines	Yes	Pewamo, end moraine 6%
Blount	Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	End moraines	Yes	Pewamo, end moraine 6%
Glynwood	Gwe1B1	Glynwood silt loam, end moraine, 2 to 6 percent slopes	End moraines	Yes	Pewamo 6%
Pewamo	PmA	Pewamo silty clay loam, 0 to 1 percent slopes	Depressions	Yes	Pewamo 85%; Minster 6%

NOTES:

USDA, NRCS, 2017 Soil Survey Geographic (SSURGO) Database. Available online at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2 053627 USDA, NRCS. December 2015. National Hydric Soils List by State. Available online at:

http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/

3.1.2 National Wetland Inventory Map Review

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

According to the NWI maps of the Cairo, Ohio quadrangle, the Project survey area contains four mapped NWI wetlands. Two of these features are located in the southern portion of the Project survey area. One feature is located to the east and one other feature is located in the northern portion of the Project survey area. These features are characterized as one palustrine aquatic bed, intermittently exposed wetland (PABGx), one palustrine emergent, temporarily flooded wetland (PEM1A), one palustrine emergent, seasonally flooded wetland (PEM1C), and one palustrine forested, temporarily flooded wetland (PFO1A).

3.1.3 Delineated Wetlands

During the field survey, AECOM identified eight wetlands, ranging in size from 0.05 to 0.48 acre, within the Project survey area. These eight wetlands are of five different wetland habitat types: four PEM wetlands, one PFO wetland, one PEM/PFO wetland, one PEM/PSS wetland, and one PFO/PSS. See Table 2 for a summary of the delineated wetlands within the Project survey area.

⁽¹⁾ Data sources include:

East Lima Station

Expansion Project



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

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

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

Wetland Name	Latitude	Longitude	Cowardin Wetland Type ^a	ORAM Score	ORAM Category	Acreage within Project Survey Area
Wetland 01	40.799581	-84.029760	PEM	17	Category 1	0.48
Wetland 02a	40.798671	-84.029545	PEM	21	Category 1	0.42
Wetland 02b	40.798841	-84.029689	PFO	21	Category1	0.48
Wetland 03	40.800381	-84.027913	PEM	16	Category 1	0.13
Wetland 04	40.799877	-84.027834	PEM/PSS	16.5	Category 1	0.20
Wetland 05	40.802367	-84.027877	PEM	17	Category 1	0.33
Wetland 06	40.803332	-84.029560	PFO/PSS	17.5	Category 1	0.05
Wetland 07	40.802090	-84.029859	PEM/PFO	16.5	Category 1	0.06
Total: 8 Wetlands	S					2.1

 $Coward in Wetland \ Class^a: PEM = palustrine \ emergent, \ PFO = palustrine \ forested, \ PSS = palustrine \ scrub-shrub$

3.1.4 Delineated Wetlands ORAM V5.0 Results

Within the Project survey area, the eight wetlands were identified as Category 1. Wetland 03 had the lowest ORAM score, 16, while Wetlands 02a and 02b had the highest score, 21. A breakdown of ORAM scores can be found in Table 2. Completed ORAM forms are provided in Appendix B.

Category 1 Wetlands

The Category 1 wetlands delineated within the Project survey area include: four PEM wetlands (Wetlands 01, 02a, 03, and 05), one PFO (Wetland 02b), one PEM/PFO (Wetland 07), one PEM/PSS (Wetland 04), and one PFO/PSS wetland (Wetland 06). The Category 1 wetlands generally exhibited very narrow buffers, moderately high to high intensive surrounding land use (e.g., row cropping, urban/highway), nearly absent to extensive percentage of invasive species, and had habitat and hydrology generally recovering or recently impacted from previous manipulation due to filling/grading, installation of ditches and tile, clearcutting, sedimentation, mowing, and farming.



Category 2 Wetlands

No Category 2 wetlands were identified during the surveys.

Category 3 Wetlands

No Category 3 wetlands were identified during the surveys.

3.2 STREAM CROSSINGS

AECOM identified one intermittent stream, totaling 484 linear feet, within the Project survey area. This stream (Stream 1) was assessed using the HHEI methodology (drainage area less than 1 mi²). The stream was identified as "Modified Class 1" stream and received an HHEI score of 29. The substrates were dominated by silt and leaf pack/wood debris. The stream showed evidence of stream channel modification (e.g., channelization, culverting, etc.) that resulted in the stream receiving a Modified Class 1 designation. The maximum pool depth was two inches, and the average bankfull width was three feet. The stream's location within the Project survey area is shown on Figure 3. A completed HHEI form is provided in Appendix C.

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

3.3 PONDS

One pond, totaling approximately 0.45 acre, was observed within the Project survey area. This pond was observed to be manmade for recreational or livestock purposes.

3.4 VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA

AECOM field ecologists conducted a general habitat survey in conjunction with the stream and wetland field survey on September 26th, 2017. Portions of the Project survey area were identified as existing transmission station (urban area), stream/wetland areas, successional woodland, old field, scrub-shrub and agricultural land. Habitat descriptions, applicable to the Project, and details on the expected impacts of construction are provided below. Vegetated land cover can be seen visually from aerial photography provided on Figure 4.



TABLE 3
VEGETATIVE COMMUNITIES WITHIN THE PROJECT AREA

Vegetative Community	Description	Approximate Acreage Within the Project Survey Area	Approximate Percentage within the Project Survey Area
Agricultural Land	Agricultural land consisting of soybean fields was present in the Project survey area. The agricultural land contains row crops and is not used for pasture or hay fields.	19.19	36%
Old Field	Herbaceous cover exists alongside roads, field borders, and abandoned fields within the survey area of the Project in the form of successional old-field communities. These communities are the earliest stages of recolonization by plants following disturbance. This community type is typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed, in which case they remain as old fields. The old-field areas within the study area and adjacent areas are infrequently mowed areas of grasses, forbs, and occasional shrubs.	8.17	15%
Successional Woodlands	Successional mixed hardwood woodlands are present along the Project survey area. Woody species dominating these areas included American Beech (Fagus grandfolia), red oak (Quercus rubra), white oak (Quercus alba), sugar maple (Acer saccharum), red maple (Acer rubrum), box elder (Acer negundo),, shagbark hickory (Carya ovata), and black cherry (Prunus serotina). The dominant shrub-layer species included spicebush (Lindera benzoin), poison ivy (Toxicodendron radicans), honeysuckle (Lonicera japonica), and blackberry (Rubus occidentalis).	1.79	3%
Scrub-Shrub	Scrub-shrub habitats represent the successional stage between old-field and second growth forest, and often emerge in recently harvested forests responding to the lightness of the removed canopy. Dominant species consist of herbaceous communities similar to that of old field habitat with a few woody species, to a community dominated by forest herbs and woody species.	7.46	14%
Stream/Wetlands	Streams and wetlands were observed within the survey area for the Project.	4.80	9%
Urban	Urban areas are areas developed with residential and commercial land uses, including roads, buildings and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	12.13	23%
Totals:		53.54	100%

3.5 THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation -

AECOM conducted a rare, threatened, and endangered species review for areas crossed by the Project survey area. The first phase of the evaluation involved a review of online lists of federal and state species of concern. Coordination letters to the USFWS, ODNR – DOW, and ODNR – DSWR soliciting comments on the project were submitted. A response letter from USFWS was received on September 18th, 2017; and a response from ODNR was received on December 1, 2017. Correspondence letters from the USFWS and ODNR are included in Appendix E. Table 4 provides a list of federal and state listed species identified in the Project area during the rare, threatened, and endangered species review by USFWS and ODNR.

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

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

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

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

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

				Potential		
Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments
Mussels						
Clubshell (<i>Pleurobema</i> <i>clava</i>)	Endangered	Endangered	This mussel prefers clean, loose sand and gravel in medium to small rivers and streams. This mussel will bury itself in the bottom substrate to depths of up to four inches.	No	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact this species.
Pondhorn (Uniomerus tetralasmus)	Threatened	None	This mussel prefers ponds, small creeks, and the headwaters of larger streams in mud and sand. This mussel can withstand periods of desiccation and is often present in areas where few other mussels are found.	Yes	One pond is present within the Project area. No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact this species.
Northern Riffleshell (<i>Epioblasma</i> <i>torulosa</i> <i>rangiana</i>)	Endangered	Endangered	This mussel prefers stable, undisturbed habitat and a sufficient population of host fish to complete the mussel's larval development. Adult mussels require gravel and sand habitat.	No	No in-water work is planned as part of the Project. No impacts to mussel species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact this species.
Fish						
Greater redhorse (Moxostoma valenciennesi)	Threatened	Species of Concern	Found in medium to large rivers in the Lake Erie drainage system. Only found in limited portions of the Sandusky, Maumee, and Grand River systems. Greater redhorse are typically found in pools with clean sand or gravel substrate, but are intolerant of pollution and turbid water.	No	No in-water work is planned as part of the Project. No impacts to fish species and their habitat are anticipated.	ODNR stated that due to the location, and that there is no in-water work proposed in a perennial steam, this project is not likely to impact this species.

TABLE 4
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT AREA

Common Name (Scientific Name)	State Status	Federal Status	Habitat Description	Potential Habitat Observed in the Project Survey Area	Impact Assessment	Agency Comments		
Birds	Birds							
Upland sandpiper (<i>Bartramia</i> <i>longicauda</i>)	Endangered	None	Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP).	Yes	Some potentially suitable habitat is present within the Project area (old field; emergent wetland habitats).	ODNR requested if grassland habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.		



ODNR-DOW Coordination -

Coordination with the ODNR-DOW was initiated during the planning stages of the Project to obtain records located in the vicinity of the project. Response was received on December 1, 2017.

The ODNR-DOW noted that the Project lies within the range of the federally endangered Indiana bat. ODNR-DOW recommends that if tree clearing cannot be avoided, tree removal occur between October 1 and March 31 is appropriate to avoid adverse effects to Indiana bats during the pup-rearing months.

ODNR noted that the Project is within the range of three state listed mussel species (clubshell, northern riffleshell, and pondhorn). Additionally, the state threatened fish, greater redhorse, was identified in the range of the Project. ODNR indicated that due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact these species.

Based on correspondence with the ODNR, the upland sandpiper was listed as being potential species found within Allen County, Ohio; however, based on the ODNR's state listed wildlife species, the upland sandpiper has never been recorded in the county. ODNR has also indicated that the potential habitat ground cover types that are smaller than one acre in size and commercial or residential landscaped areas do not constitute adequate nesting habitat for this species. Because the Project will not impact this type of habitat it is not likely to impact the species.

USFWS Coordination –

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

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



4.0 SUMMARY

The ecological survey of the Project survey area identified eight wetlands, one intermittent stream and one pond. Stream 01 was assessed using the HHEI methodology (drainage area less than 1 mi²) and was identified as Modified Class 1 stream.

The eight wetlands identified within the project survey area are of five different habitat types: four PEM wetlands, one PFO wetland, one PEM/PFO wetland, one PEM/PSS wetland, and one PFO/PSS wetland. All eight wetlands were identified as Category 1 wetlands.

A response letter from USFWS was received on September 18th, 2017; and a response from ODNR on December 1. In addition to the comments received from USFWS and ODNR, AECOM's analysis of potential habitat for rare, threatened, or endangered species is based on the field evaluation on September 26, 2017,.

Based on correspondence with USFWS and ODNR, impacts to bats can be avoided by removing any necessary trees (i.e., roosting habitat) between October 1 and March 31. Impacts to other federal or state listed species are not expected to occur due to the type of project and no planned impacts to perennial streams.

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

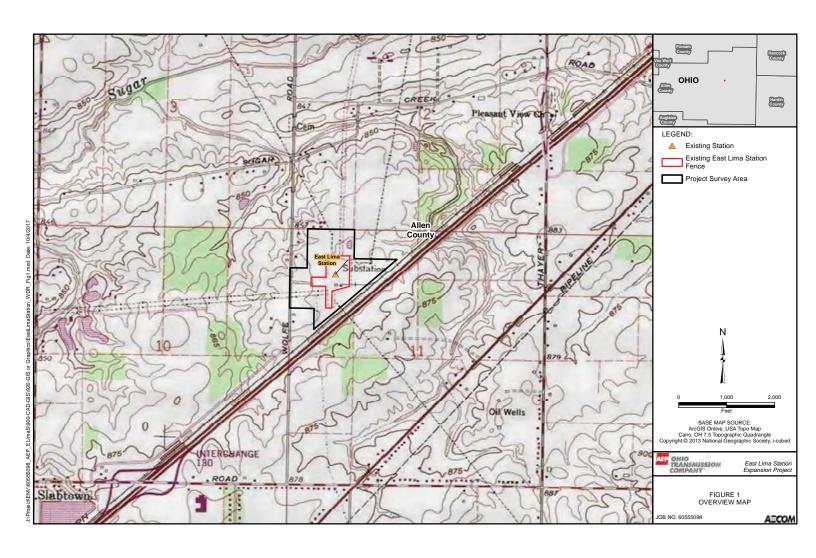
The information contained in this wetland delineation report is for a study area that may be much larger than the actual Project limits-of-disturbance; therefore, lengths and acreages listed in this report may not constitute the actual impacts of the Project defined in subsequent permit applications.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

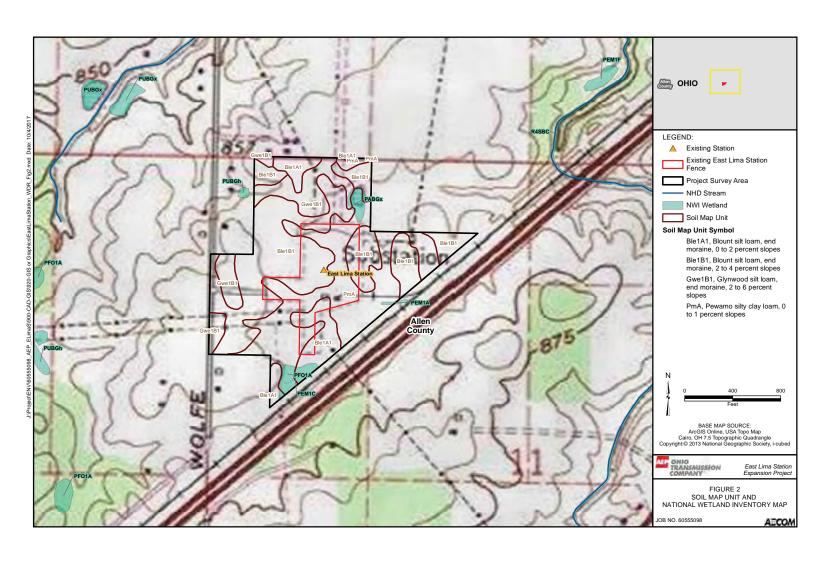
The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due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

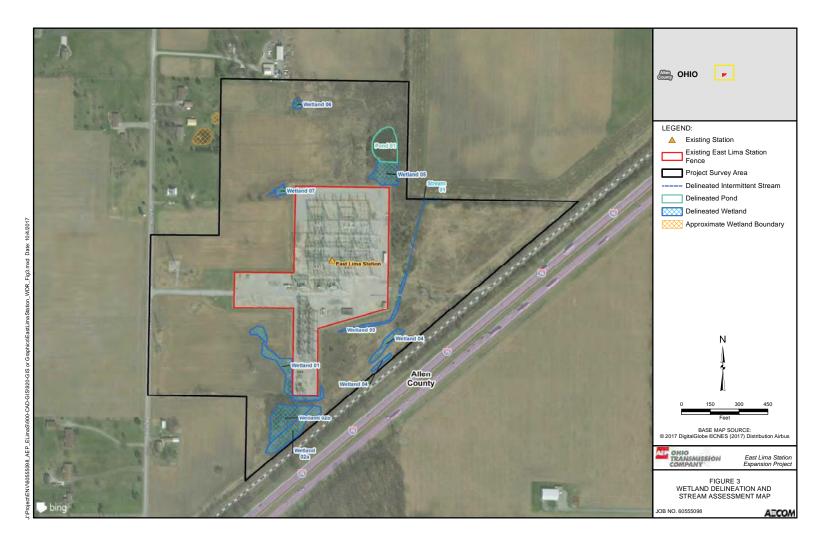


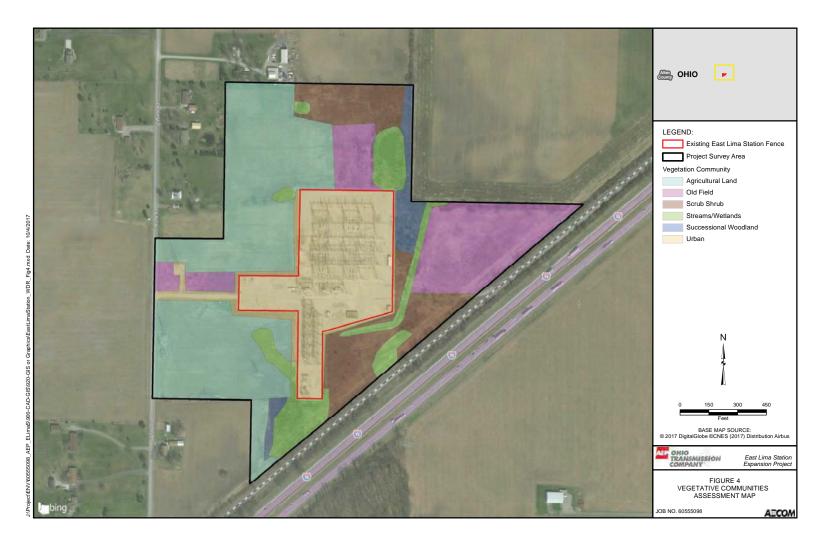
5.0 REFERENCES

- Cowardin, L.M., V. Carter, F.C. Golet and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* Office of Biological Services, U.S. Fish and Wildlife Service, Washington, D.C.
- Environmental Laboratory. 1987. *U.S. Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station: Vicksburg, Mississippi.
- Fritz, K.M., B.R. Johnson, and D.M. Walters. 2006. Field Operations Manual for Assessing the Hydrologic Permanence and Ecological Condition of Headwater Streams. EPA/600/ R-06/126. U.S. Environmental Protection Agency, Office of Research and Development, Washington DC.
- Kollmorgen Corporation. 2010. Munsell Soil Color Charts. Baltimore, Maryland.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X
- Mack, John J. 2001. Ohio Rapid Assessment Method for Wetlands v. 5.0, User's Manual and Scoring Forms. Ohio EPA Technical Report WET/2001-1. Ohio Environmental Protection Agency, Division of Surface Water, 401/Wetland Ecology Unit, Columbus, Ohio.
- Ohio EPA, 2012. Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams. Version 3.0. Ohio EPA Division of Surface Water, Columbus, Ohio. 117 pp.
- Rankin, Edward T. 2006. *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)*. Ohio EPA Ecological Assessment Section, Division of Surface Water, Columbus, Ohio.
- U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter No. 05-05: Guidance on Ordinary High Water Mark Identification.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), ed. J. S. Wakely, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2015. National Hydric Soils List. http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed 10/2/17.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2017. National Weather Service- Wetland Climate Evaluation Database (WETS Table). http://www.wcc.nrcs.usda.gov/climate/wetlands.html. Accessed 9/29/17.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2017. Web Soil Survey (GIS Shapefile). http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed 10/2/17.
- U.S. Fish and Wildlife Service. 2017. National Wetlands Inventory Classification De-coder. Available online at https://fwsmapservices.wim.usgs.gov/decoders/SWI.aspx. Accessed 10/02/17.









APPENDIX A

U.S. ARMY CORPS OF ENGINEERS WETLAND FORMS

WETLAND 01

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Exp	ansion		Cit	y/County:	Allen County	<u> </u>	Sampling Date: 26-Sep	-17
Applicant/Owner: AEP					State:	OH Sampl	ing Point: w-jbl-092617	-01
nvestigator(s): J. Lubbers, A. Hanner				Section, Towr	nship, Range:	: S 11 T 3S	R 7E	
andform (hillslope, terrace, etc.): Swale					Local relief (c	concave, convex, none):		
					•	_	Datum: NAD 83	
Slope: <u>1.0%</u> <u>0.6</u> ° Lat.:				Long.:	-84.0301922			
Soil Map Unit Name: <u>Pewamo silty c</u>				<u> </u>		NWI classification	tion: N/A	
are climatic/hydrologic conditions on the	site typical fo		year? Yes	y No ∪	(If no, ex	xplain in Remarks.)		\
re Vegetation	, or Hydrolog	gy 📙 s	significantly dis	turbed?	Are "No	ormal Circumstances" pres	sent? Yes • No •)
re Vegetation , Soil	, or Hydrolog	gy 🗌 r	naturally proble	ematic?	(If nee	ded, explain any answers	in Remarks.)	
SUMMARY OF FINDINGS - A	ttach site	map sho	wing samı	oling poir	ıt locatio	ns, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Present?	Yes	No O						
Hydric Soil Present?	Yes 💿	No \bigcirc			e Sampled <i>l</i> n a Wetland			
Wetland Hydrology Present?	Yes 💿	No \bigcirc				1es © 110 ©		
Remarks:								
next to soybean field								
•								
VEGETATION - Use scie	ntific nam	nes of plar	nts.	Dominant				
			Absolute	- Species? Rel.Strat.	Indicator	Dominance Test wor	ksheet:	
<u></u>)		% Cover		Status	Number of Dominant S	pecies	
1			0	0.0%		That are OBL, FACW, or		(A)
2				0.0%		Total Number of Domin	ant	
3				0.0%		Species Across All Strat		(B)
4				0.0%	- ——	Daniel of daniment	Consider	
5				0.0%		Percent of dominant That Are OBL, FACW		(A/B)
2 11 (2) 1 2 1 (Dist size)		,	0	= Total Cove	er	,		
Sapling/Shrub Stratum (Plot size:		_				Prevalence Index wo		
1				0.0%	- ——	Total % Cover		
2				0.0%		OBL species	<u>20</u> x 1 = <u>20</u>	
1				0.0%	- — —		70 x 2 = 140	
4 5.				0.0%		FACIL anadias	4 x 3 = 12	
				= Total Cove	ar	FACU species	$ \begin{array}{ccccccccccccccccccccccccccccccccccc$	
Herb Stratum (Plot size:)				-1	UPL species		
1. Persicaria pensylvanica				48.1%	FACW	Column Totals:	<u>104</u> (A) <u>212</u> (B	B)
2. Cyperus esculentus			10	9.6%	FACW	l	D/A 2.020	
3. Echinochloa crus-galli						Prevalence Index	x = B/A = 2.038	
· · · · · · · · · · · · · · · · · · ·			10	9.6%	FACW	Hydrophytic Vegetati		
4. Juncus effusus			8	9.6%	FACW OBL	Hydrophytic Vegetati		
Juncus effusus Rumex crispus			8 4	9.6% 7.7% 3.8%	FACW OBL FAC	Hydrophytic Vegetati	on Indicators:	
4. Juncus effusus 5. Rumex crispus 6. Ambrosia artemisiifolia			8 4 10	9.6% 7.7% 3.8% 9.6%	FACW OBL FAC FACU	Hydrophytic Vegetati 1 - Rapid Test for	on Indicators: Hydrophytic Vegetation st is > 50%	
 Juncus effusus Rumex crispus Ambrosia artemisiifolia Typha angustifolia 			8 4 10 12	9.6% 7.7% 3.8% 9.6% ✓ 11.5%	FACW OBL FAC	Hydrophytic Vegetati 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Inc 4 - Morphological	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppo	orting
 Juncus effusus Rumex crispus Ambrosia artemisiifolia Typha angustifolia . 			8 4 10 12 0	9.6% 7.7% 3.8% 9.6% 11.5% 0.0%	FACW OBL FAC FACU	Hydrophytic Vegetati ✓ 1 - Rapid Test for ✓ 2 - Dominance Te ✓ 3 - Prevalence Ind — 4 - Morphological data in Remarks of	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppor on a separate sheet)	
 Juncus effusus Rumex crispus Ambrosia artemisiifolia Typha angustifolia 			8 4 10 12	9.6% 7.7% 3.8% 9.6% ✓ 11.5%	FACW OBL FAC FACU	Hydrophytic Vegetati ✓ 1 - Rapid Test for ✓ 2 - Dominance Te ✓ 3 - Prevalence Ind — 4 - Morphological data in Remarks of	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppo	
4. Juncus effusus 5. Rumex crispus 6. Ambrosia artemisiifolia 7. Typha angustifolia 8. 9.			8 4 10 12 0	9.6% 7.7% 3.8% 9.6% 11.5% 0.0%	FACW OBL FAC FACU OBL	Hydrophytic Vegetati 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Inc 4 - Morphological data in Remarks of Problematic Hydro	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppor on a separate sheet) ophytic Vegetation ¹ (Explain of soil and wetland hydrology)	1)
 Juncus effusus Rumex crispus Ambrosia artemisiifolia Typha angustifolia 9)		8 4 10 12 0 0 0 104	9.6% 7.7% 3.8% 9.6% 11.5% 0.0% 0.0% Total Cove	FACW OBL FAC FACU OBL	Hydrophytic Vegetati 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Inc 4 - Morphological data in Remarks of Problematic Hydro	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppor on a separate sheet) ophytic Vegetation ¹ (Explain	1)
4. Juncus effusus 5. Rumex crispus 6. Ambrosia artemisiifolia 7. Typha angustifolia 8. 9. 10. Woody Vine Stratu (Plot size: 1.)		8 4 10 12 0 0 0 104	9.6% 7.7% 3.8% 9.6% 11.5% 0.0% 0.0% 0.0%	FACW OBL FAC FACU OBL	Hydrophytic Vegetati 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Ind 4 - Morphological data in Remarks of Problematic Hydro 1 Indicators of hydrobe present, unless di	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppor on a separate sheet) ophytic Vegetation ¹ (Explain of soil and wetland hydrology)	1)
4. Juncus effusus 5. Rumex crispus 6. Ambrosia artemisiifolia 7. Typha angustifolia 8. 9.			8 4 10 12 0 0 0 104	9.6% 7.7% 3.8% 9.6% 11.5% 0.0% 0.0% Total Cove 0.0% 0.0%	FACW OBL FAC FACU OBL	Hydrophytic Vegetati 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Inc 4 - Morphological data in Remarks of Problematic Hydrophytic Hydrophytic Vegetation	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppor on a separate sheet) ophytic Vegetation ¹ (Explain c soil and wetland hydrology is sturbed or problematic.	1)
4. Juncus effusus 5. Rumex crispus 6. Ambrosia artemisiifolia 7. Typha angustifolia 8. 9. 10. Woodv Vine Stratu (Plot size: 1.)		8 4 10 12 0 0 0 104	9.6% 7.7% 3.8% 9.6% 11.5% 0.0% 0.0% 0.0%	FACW OBL FAC FACU OBL	Hydrophytic Vegetati 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Ind 4 - Morphological data in Remarks of Problematic Hydro 1 Indicators of hydric be present, unless di	on Indicators: Hydrophytic Vegetation st is > 50% dex is ≤3.0 ¹ Adaptations ¹ (Provide suppor on a separate sheet) ophytic Vegetation ¹ (Explain c soil and wetland hydrology is sturbed or problematic.	1)

WETLAND 01 **SOIL** Sampling Point: w-ibl-092617-01

Profile Descr	Matrix		Por	lox Featur	·AC			
Depth (inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc2	Texture	Remarks
0-10	10YR 4/2	95	10YR 4/6	5	С		Loam	
			-					
			-					
T						•	21	Mark 2
Hydric Soil 1	centration, D=Depletion	1, RM=Reduce	ed Matrix, CS=Cover	ed or Coate	ed Sand Gr	ins.	² Location: PL=Pore Lining. M	
Histosol (Sandy Clayed	Matrix (CA	`		Indicators for Problema	tic Hydric Soils ³ :
≒ `	pedon (A2)		Sandy Gleyed Sandy Redox)		Coast Prairie Redox (A	16)
Black Hist	, ,		Stripped Matr	. ,			Dark Surface (S7)	
_	Sulfide (A4)		Loamy Mucky	. ,	1)		☐ Iron Manganese Masse	s (F12)
Stratified	Layers (A5)		Loamy Gleyed	-			Very Shallow Dark Surf	ace (TF12)
2 cm Muc	k (A10)		✓ Depleted Mati		,		Other (Explain in Rema	arks)
Depleted	Below Dark Surface (A1	11)	Redox Dark S	. ,				
Thick Dar	k Surface (A12)		Depleted Dark	` ,			3 - 11	
☐ Sandy Mu	ck Mineral (S1)		Redox Depres		,,		³ Indicators of hydrophytic wetland hydrology m	s vegetation and ust be present.
5 cm Muc	ky Peat or Peat (S3)		Redox Depres	1310113 (1 0)			unless disturbed or	
estrictive L	ayer (if observed):							
	ayer (observea).							
Type:								
							Hydric Soil Present?	ſes ● No ○
Туре:							Hydric Soil Present?	∕es ● No ○
Type: Depth (inc Remarks:	hes):						Hydric Soil Present?	∕es ● No ○
Type: Depth (inc Remarks: YDROLC	hes):						Hydric Soil Present?	∕es ● No ○
Type: Depth (inc Remarks: YDROLC Vetland Hyd	hes):							
Type:	hes):	is required; cl					_Secondary Indicators	s (minimum of two required_
Type:	hes):	is required; cl	Water-Stain		(B9)		Secondary Indicators Surface Soil Crac	s (minimum of two required ks (B6)
Type:	hes):	is required; cl	Water-Stain Aquatic Fau	na (B13)	` ,		Secondary Indicators Surface Soil Crac	s (minimum of two required ks (B6) s (B10)
Type:	hes):	is required; cl	Water-Stain Aquatic Fau True Aquati	na (B13) c Plants (B1	L4)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate	s (minimum of two required ks (B6) s (B10) er Table (C2)
Type:	hes):	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (B1 ulfide Odor	14) (C1)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8)
Type:	hes):	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (B1 ulfide Odor izospheres	L4) (C1) on Living F	oots (C3)	Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9)
Type:	hes):	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	na (B13) c Plants (B1 ulfide Odor izospheres Reduced I	L4) (C1) on Living F on (C4)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1)
Type:	hes):	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	na (B13) c Plants (B1 ulfide Odor izospheres Reduced II Reduction	(C1) on Living F on (C4) in Tilled Sc		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes):		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (B1 ulfide Odor izospheres Reduced II Reduction Surface (C7	(C1) on Living F on (C4) in Tilled So		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes):	gery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (Bi ulfide Odor izospheres Reduced In Reduction Surface (C7) ell Data (D	(C1) on Living F on (C4) in Tilled So)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes):	gery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (Bi ulfide Odor izospheres Reduced In Reduction Surface (C7) ell Data (D	(C1) on Living F on (C4) in Tilled So)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes):	gery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (Bi ulfide Odor izospheres Reduced In Reduction Surface (C7) ell Data (D	(C1) on Living F on (C4) in Tilled So)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Policy Indicators: ators (minimum of one /ater (A1) Policy Table (A2) Policy Table (A2) Policy Table (B2) Posits (B3) Posits (B3) Posits (B4) Posits (B5) Posits (B5)	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced II Reduction Surface (C7 ell Data (D)	(C1) on Living F on (C4) in Tilled So)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Pogy Irology Indicators: ators (minimum of one /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Image /egetated Concave Surf ations: Present? Yes	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced II Reduction Surface (C7 ell Data (D)	(C1) on Living F on (C4) in Tilled So)		Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Irology Indicators: ators (minimum of one /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Imagivegetated Concave Surfations: Present? Yes (Present? Yes (Present) Ye	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced In Reduction Gurface (C7) ell Data (D) ain in Rema	(C1) on Living F on (C4) in Tilled So)	ils (C6)	Secondary Indicators Surface Soil Crace Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Color	gery (B7) face (B8) No •	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced II Reduction Gurface (C7 cell Data (D) ain in Rema	(C1) on Living F on (C4) in Tilled So)	ils (C6)	Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Irology Indicators: ators (minimum of one /ater (A1)	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inc	na (B13) c Plants (Bi ulfide Odor izospheres Reduced In Reduction Gurface (C7) fell Data (D) ain in Rema	(C1) (C1) on Living F ron (C4) in Tilled Sc) 9) urks)	weti	Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Color	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inc	na (B13) c Plants (Bi ulfide Odor izospheres Reduced In Reduction Gurface (C7) fell Data (D) ain in Rema	(C1) (C1) on Living F ron (C4) in Tilled Sc) 9) urks)	weti	Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)
Type:	hes): Irology Indicators: ators (minimum of one /ater (A1)	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inc	na (B13) c Plants (Bi ulfide Odor izospheres Reduced In Reduction Gurface (C7) fell Data (D) ain in Rema	(C1) (C1) on Living F ron (C4) in Tilled Sc) 9) urks)	weti	Secondary Indicators Surface Soil Crac Drainage Pattern Dry Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	s (minimum of two required ks (B6) s (B10) er Table (C2) (C8) e on Aerial Imagery (C9) sed Plants (D1) tion (D2)

WETLAND 02ab

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Expansion	City/County: Allen County	Sampling Date: 26-Sep-17
Applicant/Owner: _AEP	State:	OH Sampling Point: w-jbl-092617-02a,b
Investigator(s): J. Lubbers, A. Hanner	Section, Township, Range	
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, none): concave
Slope: <u>1.0%</u> <u>0.6</u> ° Lat.: 40.7989315	Long.: -84.0295869	9 Datum: NAD 83
	Eong04.029300.	NWI classification: PFO1A,PEM1C
Soil Map Unit Name: Blount silt loam (Ble1A1) Are climatic/hydrologic conditions on the site typical for this time	Yes No O (If no e	xplain in Remarks.)
Are Vegetation		eded, explain any answers in Remarks.)
<u> </u>	OWING Sampling Politic location	ns, transects, important reacures, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled A	Δερα
Hydric Soil Present? Yes No	within a Wetland	
Wetland Hydrology Present? Yes No		
Remarks:		
wetland 2a is pem, wetland 2b is pfo		
VEGETATION - Use scientific names of pl		
	Absolute Rel.Strat. Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover Cover Status	Number of Dominant Species
1. Populus deltoides	35 63.6% FAC	That are OBL, FACW, or FAC:6(A)
2. Fraxinus pennsylvanica	15	Total Number of Dominant
3. Quercus palustris 4.	0 0000	Species Across All Strata: 6 (B)
5.	0 0.0%	Percent of dominant Species
J	55 = Total Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1. Fraxinus pennsylvanica	45 75.0%FACW	Total % Cover of: Multiply by:
2. Quercus palustris	15 ✓ 25.0% FACW	OBL species 20 x 1 = 20
3	0.0%	FACW species 120 x 2 = 240
4	0	FAC species 35 x 3 = 105
5	0	FACU species <u>0</u> x 4 = <u>0</u>
_Herb Stratum (Plot size:)	60 = Total Cover	UPL species 0 x 5 = 0
1. Echinochloa crus-galli	40 4 66.7% FACW	Column Totals: <u>175</u> (A) <u>365</u> (B)
2. Juncus effusus	15 🗹 25.0% OBL	Prevalence Index = B/A = 2.086
3. Carex frankii	5 8.3% OBL	· — —
4.	0 0.0%	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
5	0	2 - Dominance Test is > 50%
6	0	✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0 ¹
7	0 0.0%	4 - Morphological Adaptations ¹ (Provide supporting
8		data in Remarks or on a separate sheet)
9. 10.		☐ Problematic Hydrophytic Vegetation ¹ (Explain)
10	0	1 Indicators of hydric soil and wetland hydrology must
	60 = Total Cover	be present, unless disturbed or problematic.
1,	0	
2		Hydrophytic Vegetation
	0 = Total Cover	Present? Yes No
		L
Remarks: (Include photo numbers here or on a separate	e sheet.)	

WETLAND 02ab **SOIL** Sampling Point: w-ibl-092617-02a.b

Depth	tion: (Describe to t Matrix			lox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type 1	Loc2	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	С	М	Silty Clay Loam	
							-	
	 -							
			-					
			-					
	ntration, D=Depletion		ed Matrix. CS=Cover	ed or Coat	ed Sand Gr	ains.	² Location: PL=Pore Linin	g. M=Matrix.
ydric Soil Ind		.,	24 : 141 111, 00 00 101					-
Histosol (A1)			Sandy Gleyed	Matrix (S	4)			lematic Hydric Soils ³ :
Histic Epiped			Sandy Redox	•	.,		Coast Prairie Redo	` '
Black Histic ((A3)		Stripped Matr	. ,			Dark Surface (S7)	
☐ Hydrogen Su	ılfide (A4)		Loamy Mucky	` '	=1)		☐ Iron Manganese M	
Stratified Lay			Loamy Gleyed		-		Very Shallow Dark	Surface (TF12)
2 cm Muck (•		✓ Depleted Mati		,		Other (Explain in I	Remarks)
	low Dark Surface (A1	.1)	Redox Dark S	. ,)			
Thick Dark S	Surface (A12)		Depleted Dark	s Surface ((F7)		³ Indicators of hydrop	ohytic vegetation and
☐ Sandy Muck	. ,		Redox Depres	sions (F8)			wetland hydrolog	gy must be present,
	Peat or Peat (S3)						unless disturbe	d or problematic.
abulablica I acci	er (if observed):							
estrictive Laye								
Type:							Hydric Soil Drocont?	Yee 📵 Ne 🔾
Type:							Hydric Soil Present?	Yes ● No ○
Туре:							Hydric Soil Present?	Yes No
Type: Depth (inches emarks:	s):		_				Hydric Soil Present?	Yes No
Type: Depth (inches emarks:	s):						Hydric Soil Present?	Yes No
Type: Depth (inchese emarks:	s):						Hydric Soil Present?	Yes No
Type: Depth (inchese emarks: **Type: Depth (inchese emarks:)	s):Y	is required; cl	neck all that apply)					Yes No No ators (minimum of two required
Type: Depth (inchese emarks: **Topological Control of the	s):	is required; cl	neck all that apply)	ed Leaves	(B9)			ators (minimum of two required
Type: Depth (inchese arks: **TOROLOG** Toronto are the content of the co	Y logy Indicators: rs (minimum of one i er (A1)	is required; ch			(B9)		Secondary Indic	ators (minimum of two required
Type:	logy Indicators: rs (minimum of one ier (A1) Table (A2)	is required; ch	Water-Stain	na (B13)	,		Secondary Indic Surface Soil Drainage Pa	tators (minimum of two required Cracks (B6)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3)	is required; ch	Water-Stain Aquatic Fau	na (B13) c Plants (E	314)		Secondary Indic Surface Soil Drainage Pa	cators (minimum of two required Cracks (B6) otterns (B10) Water Table (C2)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3)	is required; ch	Water-Stain Aquatic Fau True Aquati	na (B13) c Plants (E ulfide Odo	314) or (C1)	Roots (C3)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur	cators (minimum of two required Cracks (B6) otterns (B10) Water Table (C2)
Type:	logy Indicators: rs (minimum of one ier (A1) Table (A2) A3) (B1) exposits (B2)	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (E ulfide Odo izospheres	314) or (C1) s on Living I	Roots (C3)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Frows (C8)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) r (B1) exposits (B2) rs (B3)	is required; ch	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (E ulfide Odo izospheres Reduced :	314) or (C1) s on Living I Iron (C4)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Frows (C8)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) eposits (B2) rs (B3) Crust (B4) s (B5)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	na (B13) c Plants (E ulfide Odo izospheres Reduced I Reduction	314) or (C1) s on Living I Iron (C4) n in Tilled So		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	logy Indicators: rs (minimum of one ier (A1) Table (A2) A3) (B1) eposits (B2) rs (B3) Crust (B4)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (Ci	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) eposits (B2) rs (B3) Crust (B4) s (B5)	ery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (Ci ell Data (E	314) or (C1) or (C1) s on Living I Iron (C4) or in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) eposits (B2) s (B3) Crust (B4) s (B5) //isible on Aerial Imag	ery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (Ci ell Data (E	314) or (C1) or (C1) s on Living I Iron (C4) or in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) eposits (B2) ss (B3) Crust (B4) ss (B5) //isible on Aerial Imag getated Concave Surf	iery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (Ci ell Data (E	314) or (C1) or (C1) s on Living I Iron (C4) or in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	logy Indicators: rs (minimum of one if er (A1) Table (A2) A3) (B1) Poposits (B2) (B3) Crust (B4) (B5) Visible on Aerial Imaggetated Concave Surfons:	iery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Gurface (C: ell Data (I ain in Rem	314) or (C1) or (C1) s on Living I Iron (C4) or in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) exposits (B2) ss (B3) Crust (B4) ss (B5) //isible on Aerial Imag getated Concave Surf ons: esent? Yes	ery (B7) face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (C ell Data (I ain in Rem	314) or (C1) or (C1) s on Living I Iron (C4) or in Tilled So 7)	pils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Frows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) Test (D5)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) eposits (B2) s (B3) Crust (B4) s (B5) //isible on Aerial Imag getated Concave Surf ons: esent? Yes	ery (B7) Face (B8) No No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (C: ell Data (E ain in Rem	314) or (C1) or (C1) s on Living I Iron (C4) or in Tilled So 7)	pils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) Test (D5)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) exposits (B2) ss (B3) Crust (B4) ss (B5) Visible on Aerial Imag getated Concave Surf ons: esent? Yes ent? Yes y fringe) Yes	ery (B7) face (B8) No No No No	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inc	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) fell Data (I ain in Rem ches):	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (C9) harks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Frows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) Test (D5)
Type:	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) exposits (B2) ss (B3) Crust (B4) ss (B5) //isible on Aerial Imag getated Concave Surf ons: esent? Yes ent? Yes	ery (B7) face (B8) No No No No	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inc	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) fell Data (I ain in Rem ches):	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (C9) harks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Frows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) Test (D5)
Type: Depth (inches emarks: YDROLOG Yetland Hydrol rimary Indicator Surface Water High Water 1 Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Inundation V Sparsely Veg eld Observati urface Water Products Capillary	logy Indicators: rs (minimum of one i er (A1) Table (A2) A3) (B1) exposits (B2) ss (B3) Crust (B4) ss (B5) Visible on Aerial Imag getated Concave Surf ons: esent? Yes ent? Yes y fringe) Yes	ery (B7) face (B8) No No No No	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inc	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) fell Data (I ain in Rem ches):	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (C9) harks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) Itterns (B10) Water Table (C2) Frows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) Test (D5)

WETLAND 03

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Exp	ansion		Cit	ty/County:	Allen County	<u> </u>	Sampling Date: 26-Sep-17
Applicant/Owner: AEP					State:	OH Samplir	ng Point: w-jbl-092617-03
nvestigator(s): J. Lubbers, A. Hanner				Section, Town	ship, Range	S 11 T 3S	R 7E
andform (hillslope, terrace, etc.): Swal				L	ocal relief (concave, convex, none): Co	
Slope: 1.0% 0.6 ° Lat.:	40 800189	 87		Long: -	84.0281812	—)	Datum: NAD 83
					04.0201012		
Soil Map Unit Name: Pewamo silty o			, , Vec (• No ()	/If no o	NWI classificati	on: N/A
are climatic/hydrologic conditions on the						,	ent? Yes No
re Vegetation , Soil ,	, or Hydrolo		significantly dis		Are "No	ormal Circumstances" prese	nt? res © NO C
ure Vegetation	or Hydrolo, ttach site	<i>-</i>	naturally proble		•	ded, explain any answers ir	•
Hydrophytic Vegetation Present?	Yes ①	No O				,	
, , , ,	Yes •	No O		Is the	Sampled A		
Hydric Soil Present?	res ⊚ Yes ⊙	No O		withi	n a Wetland	d? Yes ● No ○	
Wetland Hydrology Present?	res 🍛	NO O					
Remarks:							
VEGETATION - Use scie	ntific nar	nes of nla	nts	Dominant			
VEGETATION 03c 3cic	Titilic IIai	iles of pla		- Species?		T	
Tree Stratum(Plot size:)		Absolute % Cover		Indicator Status	Dominance Test work	sheet:
1			-	0.0%	Status	Number of Dominant Sp That are OBL, FACW, or	
2				0.0%		mac are obe, men, or	(i)
3.				0.0%		Total Number of Domina Species Across All Strata	
4.				0.0%		Species Across Ali Strata	(b)
5			0	0.0%		Percent of dominant S	
			0	= Total Cove	er	That Are OBL, FACW,	or FAC:100.0% (A/B)
<u>Saplina/Shrub Stratum (</u> Plot size:		_)				Prevalence Index wor	ksheet:
1			0	0.0%		Total % Cover o	of: Multiply by:
2				0.0%			45 x 1 = 45
3			0	0.0%			55 x 2 = <u>110</u>
4				0.0%			0 x 3 = 0
5						FACU species	0 x 4 = 0
<u>Herb Stratum</u> (Plot size:)		0	= Total Cove	er	UPL species	0 x 5 = 0
1 , Typha angustifolia			35	✓ 35.0%	OBL	Column Totals:	<u>155</u> (B)
2. Echinochloa crus-galli			35	35.0%	FACW	Prevalence Index	= B/A = <u>1.550</u>
3. Juncus effusus			10	10.0%	OBL	Hydrophytic Vegetatio	n Indicators:
4. Juncus torreyi				10.0%	FACW		Hydrophytic Vegetation
5. Cyperus esculentus				10.0%	FACW	✓ 2 - Dominance Tes	
6 7.				0.0%		✓ 3 - Prevalence Inde	
				0.0%			Adaptations ¹ (Provide supporting
8.			J			l deservices and the co	
8 9.							on a separate sheet)
8. 9. 10.			0	0.0%			r on a separate sneet) $phytic$ Vegetation 1 (Explain)
9.)	0 0 100	0.0%	er	Problematic Hydro $\frac{1}{2}$ Indicators of hydric	
9.		,)	100	0.0% 0.0% = Total Cove	er	Problematic Hydro $\frac{1}{2}$ Indicators of hydric	phytic Vegetation 1 (Explain) soil and wetland hydrology must
9. 10. Woodv Vine Stratu (Plot size:		,)	0 100	0.0% 0.0% = Total Cove	er	Problematic Hydro 1 Indicators of hydric be present, unless dis Hydrophytic	phytic Vegetation 1 (Explain) soil and wetland hydrology must
9. 10.		,)	100	0.0% 0.0% = Total Cove 0.0% 0.0%		Problematic Hydro 1 Indicators of hydric be present, unless dis Hydrophytic Vegetation	phytic Vegetation ¹ (Explain) soil and wetland hydrology must turbed or problematic.
9. 10. Woodv Vine Stratu (Plot size:			0 100	0.0% 0.0% = Total Cove		Problematic Hydro 1 Indicators of hydric be present, unless dis Hydrophytic	phytic Vegetation ¹ (Explain) soil and wetland hydrology must turbed or problematic.

WETLAND 03 **SOIL** Sampling Point: w-ibl-092617-03

rofile Descri Depth =	Matrix		Red	lox Featu	ıres			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type 1	Loc2	Texture	Remarks
0-18	10YR 4/1	75	10YR 5/6	25	D	М	Silty Clay Loam	•
							-	
	-		-					
							-	
vne: C=Conce	entration, D=Depletio	n. RM=Reduc	ed Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains.	² Location: PL=Pore Linin	ng. M=Matrix.
ydric Soil Ir		.,,						
Histosol (A			Sandy Gleyed	Matrix (S	4)			lematic Hydric Soils ³ :
Histic Epipe	,		Sandy Redox	•	•,		Coast Prairie Redo	` '
Black Histic	c (A3)		Stripped Matri	. ,			☐ Dark Surface (S7)	
Hydrogen S	Sulfide (A4)		Loamy Mucky	` '	F1)		☐ Iron Manganese N	
Stratified L			Loamy Gleyed		-		Very Shallow Dark	Surface (TF12)
2 cm Muck	` '		✓ Depleted Matr		•		Other (Explain in	Remarks)
	selow Dark Surface (A	11)	Redox Dark S	. ,	5)			
☐ Thick Dark	Surface (A12)		Depleted Dark	Surface (, (F7)		³ Indicators of hydrop	nhytic vegetation and
¬ '	k Mineral (S1)		Redox Depres	sions (F8))		wetland hydrolog	gy must be present,
	y Peat or Peat (S3)						unless disturbe	d or problematic.
	yer (if observed):							
estrictive La	yei (ii observeu).							
Type:	yei (ii observeu).						Hudric Soil Brosont?	Vac (a) No (
Type: Depth (inch	, ,						Hydric Soil Present?	Yes ● No ○
Туре:	, ,						Hydric Soil Present?	Yes ● No ○
Type: Depth (inch emarks:	es):						Hydric Soil Present?	Yes No
Type: Depth (inch emarks:	es):						Hydric Soil Present?	Yes No
Type: Depth (inch emarks: YDROLO Vetland Hydr	es):							
Type: Depth (inch emarks: YDROLO etland Hydr rimary Indicat	es): GY cology Indicators: cors (minimum of one	is required; c						Yes No cators (minimum of two required
Type: Depth (inch emarks: **TOROLOG etland Hydr rimary Indicat Surface Wa	GY rology Indicators: tors (minimum of one ater (A1)	is required; c	Water-Stain		s (B9)		Secondary Indic	cators (minimum of two required Cracks (B6)
Type:	GY cology Indicators: tors (minimum of one ater (A1) r Table (A2)	is required; c	Water-Stain Aquatic Fau	na (B13)	,		Secondary Indic	cators (minimum of two required Cracks (B6) atterns (B10)
Type:	GY cology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3)	is required; c	Water-Stain Aquatic Fau True Aquati	na (B13) c Plants (E	314)		Secondary Indic Surface Soil Drainage Pa Dry Season	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2)
Type:	es):	is required; c	Water-Stain Aquatic Fau True Aquatic Hydrogen S	na (B13) c Plants (E ulfide Odo	314) or (C1)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bui	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)
Type:	es):	is required; c	Water-Stain Aquatic Fau True Aquatic Hydrogen S	na (B13) c Plants (E ulfide Odo izosphere:	314) or (C1) s on Living I	Roots (C3)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //sible on Aerial Imagery (C9)
Type:	es):	is required; c	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of	na (B13) c Plants (E ulfide Odo izosphere Reduced	314) or (C1) s on Living I Iron (C4)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	is required; c	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izosphere: Reduced Reduction	314) or (C1) s on Living I Iron (C4) n in Tilled So		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):		Water-Stain Aquatic Fau True Aquati Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (E ulfide Odd izosphere: Reduced Reduction Gurface (C	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	gery (B7)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced Reduction Gurface (C ell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	gery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (E ulfide Odo izospheres Reduced Reduction Gurface (C ell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	gery (B7)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced Reduction Gurface (C ell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (E ulfide Odc izosphere: Reduced Reductior Gurface (C ell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odc izosphere: Reduced Reductior Gurface (C ell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type:	es):	gery (B7) face (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odc izosphere: Reduced Reductior Gurface (C ell Data (I ain in Rem	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) I Test (D5)
Type:	es):	gery (B7) face (B8) No •	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odc izosphere: Reduced Reductior Gurface (C ell Data (I ain in Rem	314) or (C1) s on Living I Iron (C4) n in Tilled So 7) D9) narks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) I Test (D5)
Type:	es):	gery (B7) face (B8) No • No • No •	Water-Stain Aquatic Fau Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odc izospherer Reduced Reductior Gurface (C ell Data (I ain in Rem ches):	314) or (C1) s on Living I Iron (C4) n in Tilled So 7) D9) narks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation N Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) I Test (D5)
Type:	es):	gery (B7) face (B8) No • No • No •	Water-Stain Aquatic Fau Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odc izospherer Reduced Reductior Gurface (C ell Data (I ain in Rem ches):	314) or (C1) s on Living I Iron (C4) n in Tilled So 7) D9) narks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation N Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) I Test (D5)
Type:	es):	gery (B7) face (B8) No • No • No •	Water-Stain Aquatic Fau Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odc izospherer Reduced Reductior Gurface (C ell Data (I ain in Rem ches):	314) or (C1) s on Living I Iron (C4) n in Tilled So 7) D9) narks)	oils (C6)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation N Geomorphic FAC-Neutral	cators (minimum of two required Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) I Test (D5)

WETLAND 04

WETLAND DETERMINATION DATA FORM - Midwest Region

And form (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Lope: 1.0%	Project/Site: Aep East Lima Station Exp	pansion	Cit	y/County:	Allen County	Sampling Date: 26-Sep-17
Description Continue Conti	Applicant/Owner: AEP				State:	OH Sampling Point: w-jbl-092617-04
Dominant Dominant	Investigator(s): J. Lubbers, A. Hanner			Section, Towr	 nship, Range:	: S 11 T 3S R 7E
Description	Landform (hillslope, terrace, etc.): Flat				Local relief (d	concave, convex, none): none
In Map Unit Name Pewamo silty day loam (PmA) NWI classification: N/A				Long	04 0276754	Contract NAD 83
re dimatic/hydrologic conditions on the site hybical for this time of year? Yes		N.		Long.:	84.02/6/50	
re vegetation				■ N= ○	(7.5	<u>-</u>
Westerston						
Aboute Relative Medical Pytos (Pot size:)	Are Vegetation , Soil .	, or Hydrology 🔲 s	significantly dis	turbed?	Are "No	ormal Circumstances" present? Yes Von Vo
Tree Stratum (Plot size:)	5 – , –				•	
Is the Sampled Area within a Wetland? Yes No No No No No No No N	SUMMARY OF FINDINGS - A	<u> </u>	wing sam	oling poir	it locatio	ns, transects, important features, etc.
Within a Wetland Pydrology Present? Yes	Hydrophytic Vegetation Present?					_
VEGETATION - Use scientific names of plants.	Hydric Soil Present?	Yes No				
VEGETATION - Use scientific names of plants. Dominant Species Trace Stratum_(Plot size:) Absolute Species? Military Species? Status Species? Status Species? Status Species? Status Species? Status Species Status Status Species Status Status	Wetland Hydrology Present?	Yes No				ica - ito -
Name	Remarks:			•		
Absolute	wetland 4 mostly PEM, 25% PSS					
Absolute						
Absolute	VECETATION LIST SOL	antific names of play	atc.			
Number of Dominant Species Number of Dominant Species Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)	VEGETATION - USE SCIE	entific flames of plai		- Species?		T
1.	Tree Stratum (Plot size:)		Rel.Strat.		Dominance Test worksheet:
2.			-		Status	
3.						That are obt., FACW, or FAC.
4.						
Sablino/Shrub Stratum (Plot size:	4		•			Species Across Ali Strata: 4 (b)
Sabiling/Shrub Stratum (Plot size:				0.0%		
1. Fraxinus pennsylvanica 2. Fraxinus pennsylvanica 3. Juncus effusus 2. Fraxinus pennsylvanica 3. Juncus effusus 4. Acer rubrum 5. Fraxinus pennsylvanica 6. O			0	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
2. Acer rubrum 10	<u>Sapling/Shrub Stratum (</u> Plot size:)				Prevalence Index worksheet:
3. Ulmus americana 5	1. Fraxinus pennsylvanica		15	✓ 50.0%	FACW	Total % Cover of: Multiply by:
4.	2. Acer rubrum		10	✓ 33.3%	FAC	OBL species <u>55</u> x 1 = <u>55</u>
5. 0 0.0% FACU species 0 x 4 = 0 Herb Stratum (Plot size:) 30 = Total Cover UPL species 0 x 5 = 0 1, Juncus effusus 55 ✓ 57.9% OBL Column Totals: 125 (A) 210 (B) 2. Echinochloa crus-galli 20 ✓ 21.1% FACW Prevalence Index = B/A = 1.680 3, Juncus torreyi 10 10.5% FACW Hydrophytic Vegetation Indicators: 4. Acer rubrum 5 5.3% FACW Hydrophytic Vegetation Indicators: 5. Fraxinus pennsylvanica 5 5.3% FACW I - Rapid Test for Hydrophytic Vegetation 6. 0 0.0% ✓ 2 - Dominance Test is > 50% 7. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 8. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ ✓ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) D Problematic Hydrophytic Vegetation 10. 95 = Total Cover Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1. 0 0.0% Hydrophytic Vegetation Vegetation 2. 0 0.0% Hydrophytic Vegetation No <td>3. Ulmus americana</td> <td></td> <td>5</td> <td>16.7%</td> <td>FACW</td> <td>FACW species <u>55</u> x 2 = <u>110</u></td>	3. Ulmus americana		5	16.7%	FACW	FACW species <u>55</u> x 2 = <u>110</u>
Herb Stratum (Plot size:) 30			0	_		FAC species <u>15</u> x 3 = <u>45</u>
1_ Juncus effusus 55	5					FACU species $0 \times 4 = 0$
2. Echinochloa crus-galli 20 ✓ 21.1% FACW Prevalence Index = B/A = 1.680 3. Juncus torreyi 10 10.5% FACW Hydrophytic Vegetation Indicators: 4. Acer rubrum 5 5.3% FACW FACW 5. Fraxinus pennsylvanica 5 5.3% FACW I - Rapid Test for Hydrophytic Vegetation 6. 0 0.0% ✓ 2 - Dominance Test is > 50% 7. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 9. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes ● No ○	<u>Herb Stratum</u> (Plot size:)	30	= Total Cove	er	UPL species 0 x 5 = 0
3. Juncus torreyi 4. Acer rubrum 5. Fraxinus pennsylvanica 6. 0	1. Juncus effusus		55	✓ 57.9%	OBL	Column Totals: <u>125</u> (A) <u>210</u> (B)
3. Juncus torreyi 4. Acer rubrum 5	2. Echinochloa crus-galli		20	2 1.1%	FACW	Prevalence Index = B/A = 1 680
4. Acer rubrum 5. Fraxinus pennsylvanica 6.	3. Juncus torreyi		10	10.5%	FACW	·
5. Fraxinus pennsylvanica 6.	4. Acer rubrum		5	5.3%	FAC	
6. 7. 8. 0 □ 0.0% 9. 10. Woodv Vine Stratu (Plot size:) 1. □ 0 □ 0.0% 2. □ 0 □ 0.0% 0 □ 0.0% 95 = Total Cover 0 □ 0.0% 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes No □ No	5. Fraxinus pennsylvanica		5	5.3%	FACW	
8.						1
9.						
10. Moody Vine Stratu (Plot size:) 95 = Total Cover Total Cover Problematic Hydrophytic Vegetation 1 (Explain)	0					data in Remarks or on a separate sheet)
Woody Vine Stratu (Plot size:) 1. 0 0.0% 2. 0.0% 0 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ● No ○	-					☐ Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratu (Plot size:) 95 = Total Cover be present, unless disturbed or problematic. 1. 0 0.0% Hydrophytic Vegetation Present? Yes ● No ○	10.					
2. O O.0% Hydrophytic Vegetation Present? Yes No O	Woody Vine Stratu (Plot size:)		= TOTAL COVE	ZI	
2	1		0	0.0%		
	0		0	0.0%		Vocatation
Remarks: (Include photo numbers here or on a separate sheet.)			0	= Total Cove	er	
Remarks: (Include photo numbers here or on a separate sheet.)						
	Remarks: (Include photo number	s here or on a separate s	sheet.)			

WETLAND 04 **SOIL** Sampling Point: w-ibl-092617-04

Depth (inches) Matrix 0-18 10YR 4/1 90	Redox Features	
0-18 10YR 4/1 90	,	Loc ² Texture Remarks
	10YR 5/8 10 C	M Silty Clay Loam
ype: C=Concentration, D=Depletion, RM=Red	uced Matrix, CS=Covered or Coated Sand Grain	2Location: PL=Pore Lining. M=Matrix.
ydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Redox (S5)	Dark Surface (S7)
Black Histic (A3)	Stripped Matrix (S6)	Iron Manganese Masses (F12)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Very Shallow Dark Surface (TF12)
Stratified Layers (A5) 2 cm Muck (A10)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Uther (Explain in Remarks)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	
Sandy Muck Mineral (S1)	Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and
5 cm Mucky Peat or Peat (S3)	Redox Depressions (F8)	wetland hydrology must be present, unless disturbed or problematic.
estrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes No
emarks:		
/DROLOGY		
etland Hydrology Indicators:	check all that apply)	Secondary Indicators (minimum of two required
etland Hydrology Indicators:		Secondary Indicators (minimum of two required Surface Soil Cracks (B6)
etland Hydrology Indicators:	; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1)	Water-Stained Leaves (B9)	✓ Surface Soil Cracks (B6)
etland Hydrology Indicators: imary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Patterns (B10)
etland Hydrology Indicators: rimary Indicators (minimum of one is required. Surface Water (A1) High Water Table (A2) Saturation (A3)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14)	✓ Surface Soil Cracks (B6) □ Drainage Patterns (B10) □ Dry Season Water Table (C2) ✓ Crayfish Burrows (C8)
etland Hydrology Indicators: imary Indicators (minimum of one is required, Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1)	✓ Surface Soil Cracks (B6) □ Drainage Patterns (B10) □ Dry Season Water Table (C2) ✓ Crayfish Burrows (C8)
etland Hydrology Indicators: imary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Ots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Ots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
etland Hydrology Indicators: rimary Indicators (minimum of one is required. Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Ots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Osts (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches):	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Osts (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches):	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) eld Observations: urface Water Present? Yes No start Table Present? Ves No Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Ots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) eld Observations: urface Water Present? Yes No electron No contraction of the present? Auturation Present? Yes No contraction of the present? No contraction of the present? Yes No contraction of the present?	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) eld Observations: urface Water Present? Yes No electron No contraction of the present? Auturation Present? Yes No contraction of the present? No contraction of the present? Yes No contraction of the present?	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
etland Hydrology Indicators: rimary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) eld Observations: urface Water Present? Yes No electron No contraction of the present? Auturation Present? Yes No contraction of the present? No contraction of the present? Yes No contraction of the present?	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No

Midwest Region - Version 2.0 US Army Corps of Engineers

WETLAND 05

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Exp	pansion	City/Coun	nty: Allen County	/	Sampling Date: 26-Sep-17
Applicant/Owner: AEP			State:	OH Sampli	ng Point: w-jbl-092617-05
nvestigator(s): J. Lubbers, A. Hanner		Section	, Township, Range	: S 11 T 3S	R 7E
andform (hillslope, terrace, etc.): Swa			Local relief (concave, convex, none): c	concave
lope: <u>1.0%</u> <u>0.6</u> ° Lat.:	40 8023657	Lo	 ong.: -84.027966!		Datum: NAD 83
pil Map Unit Name: Pewamo silty	-		0110275000	NWI classificat	
re climatic/hydrologic conditions on th		of year? Yes No	(If no. e.	xplain in Remarks.)	PADGX
re Vegetation . , Soil .	, or Hydrology	significantly disturbed		ormal Circumstances" pres	ent? Yes • No O
, ,	,,			·	
re Vegetation, Soil	, or Hydrology	naturally problematic?	(If nee	eded, explain any answers i	in Remarks.)
SUMMARY OF FINDINGS - A	Attach site map sl	nowing sampling	point locatio	ns, transects, impo	ortant features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○				
Hydric Soil Present?	Yes ● No ○		Is the Sampled A within a Wetland		
Wetland Hydrology Present?	Yes ● No ○			1es © NO ©	
Remarks:					
VEGETATION - Use scie	entific names of p		inant cies? ———		
T C /Diet size	1	Absolute Rel.S	Strat. Indicator	Dominance Test work	rsheet:
Tree Stratum (Plot size:)	_	over Status	Number of Dominant Sp	
Salix nigra Populus deltoides			0.0% OBL 0.0% FAC	That are OBL, FACW, or	FAC:3 (A)
			0.0% FAC 0.0%	Total Number of Domina	
3 4			0.0%	Species Across All Strata	a: <u>3</u> (B)
5.			0.0%	Percent of dominant	
		10 = Tota	al Cover	That Are OBL, FACW,	, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)			Prevalence Index wor	rksheet:
1		00	0.0%	Total % Cover	of: Multiply by:
2		0 0	0.0%	OBL species	100 x 1 = 100
3			0.0%	FACW species	0 x 2 = 0
4 5.			0.0%		5 x 3 = 15
J			0.0%	FACU species	0 x 4 = 0
Herb Stratum (Plot size:)		al Cover	UPL species	0 x 5 = 0
1 , Typha angustifolia			10 00/ ODI		
		9510	00.0% OBL	Column Totals:	105 (A) <u>115</u> (B)
2		0 0	0.0%	Column Totals: Prevalence Index	
3		0 0 0	0.0%		c = B/A = 1.095
3. 4.			0.0%	Prevalence Index Hydrophytic Vegetation	c = B/A = 1.095
3			0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetation	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation
3			0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatio 1 - Rapid Test for	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50%
3			0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatic 1 - Rapid Test for ✓ 2 - Dominance Test ✓ 3 - Prevalence Ind 4 - Morphological	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤3.0 ¹ Adaptations ¹ (Provide supporting
3			0.0% 0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatio 1 - Rapid Test for ✓ 2 - Dominance Tes ✓ 3 - Prevalence Ind 4 - Morphological data in Remarks o	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤3.0 ¹ Adaptations ¹ (Provide supporting or on a separate sheet)
3,			0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatic 1 - Rapid Test for 2 - Dominance Tes 3 - Prevalence Ind 4 - Morphological data in Remarks o Problematic Hydro	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤ 3.0 ¹ Adaptations ¹ (Provide supporting or on a separate sheet) ophytic Vegetation ¹ (Explain)
345678910			0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatio 1 - Rapid Test for 2 - Dominance Tes 3 - Prevalence Ind 4 - Morphological data in Remarks o Problematic Hydro 1 Indicators of hydric	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤3.0 ¹ Adaptations ¹ (Provide supporting or on a separate sheet)
3)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatio 1 - Rapid Test for 2 - Dominance Tes 3 - Prevalence Ind 4 - Morphological data in Remarks o Problematic Hydro 1 Indicators of hydric	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤3.0 ¹ Adaptations¹ (Provide supporting or on a separate sheet) ophytic Vegetation¹ (Explain) c soil and wetland hydrology must
3)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatic 1 - Rapid Test for 2 - Dominance Tes 3 - Prevalence Ind 4 - Morphological data in Remarks o Problematic Hydro 1 Indicators of hydric be present, unless dis	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤3.0 ¹ Adaptations¹ (Provide supporting or on a separate sheet) ophytic Vegetation¹ (Explain) c soil and wetland hydrology must
3. 4. 5. 6. 7. 8. 9. 10. Woody Vine Stratu (Plot size:)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Prevalence Index Hydrophytic Vegetatic 1 - Rapid Test for ✓ 2 - Dominance Test ✓ 3 - Prevalence Ind 4 - Morphological data in Remarks o Problematic Hydro ¹ Indicators of hydric be present, unless dis	c = B/A = 1.095 on Indicators: Hydrophytic Vegetation st is > 50% lex is ≤3.0 ¹ Adaptations ¹ (Provide supporting or a separate sheet) ophytic Vegetation ¹ (Explain) c soil and wetland hydrology must sturbed or problematic.

WETLAND 05 Sampling Point: w-ibl-092617-05

Depth .	Matrix		Red	ox Featu	res		_	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type 1	Loc2	Texture	Remarks
0-18	10YR 5/1	95	10YR 6/6	5		М	Silty Clay Loam	
ydric Soil II Histosol (A Histic Epip Black Histi Hydrogen Stratified L 2 cm Muck Depleted E Thick Dark Sandy Muck	.1) edon (A2) c (A3) Sulfide (A4) .ayers (A5)		ed Matrix, CS=Covered Sandy Gleyed Sandy Redox Stripped Matri Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark St Depleted Dark Redox Depres	Matrix (S4 (S5) ix (S6) Mineral (F Matrix (F iix (F3) urface (F6 is Surface ((F7)	ains.	2Location: PL=Pore Lining. Indicators for Proble Coast Prairie Redox Dark Surface (S7) Iron Manganese Ma Very Shallow Dark S Other (Explain in Re	matic Hydric Soils ³ : (A16) sses (F12) furface (TF12) marks) ytic vegetation and must be present,
							l	
estrictive La	yer (if observed):							
Restrictive La	yer (if observed):							
							Hydric Soil Present?	Yes No
Type:	GY rology Indicators: tors (minimum of one	is required; c					Secondary Indicat	ors (minimum of two requirec
Type:	GY rology Indicators: tors (minimum of one ater (A1)	is required; c	Water-Stain		(B9)		Secondary Indicat	ors (minimum of two required racks (B6)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2)	is required; c	Water-Staine	na (B13)	` ,		Secondary Indicat Surface Soil C Drainage Patt	ors (minimum of two required racks (B6) erns (B10)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3)	is required; c	Water-Stain	na (B13) c Plants (E	314)		Secondary Indicat Surface Soil C Drainage Patt	ors (minimum of two required racks (B6) erns (B10) ater Table (C2)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3)	is required; c	Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rhi	na (B13) c Plants (E ulfide Odo izospheres	314) or (C1) s on Living F	oots (C3)	Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro	ors (minimum of two required racks (B6) erns (B10) ater Table (C2)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3)	is required; c	Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rhi Presence of	na (B13) c Plants (E ulfide Odo izospheres Reduced :	314) r (C1) s on Living F Iron (C4)		Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	ors (minimum of two required racks (B6) erns (B10) later Table (C2) lws (C8) ible on Aerial Imagery (C9) ressed Plants (D1)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4)	is required; c	Water-Staine Aquatic Faui True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reduction	B14) or (C1) or on Living F Iron (C4) or in Tilled Sc		Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) lows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)		Water-Staine Aquatic Faui True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S	na (B13) c Plants (E ulfide Odo izospheres Reduced Reduction turface (Ci	314) Ir (C1) Is on Living F Iron (C4) In in Tilled Sc 7)		Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) lows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2)
Type: Depth (inch Remarks: PYDROLO Vetland Hydi Primary Indica Surface W. High Wate Saturation Water Mar Sediment I Drift Depo Algal Mat of Iron Depo: Inundation	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4)	gery (B7)	Water-Staine Aquatic Faui True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reduction iurface (Ci ell Data (I	B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7)		Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) lows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2)
Type: Depth (inch Remarks: PYDROLO Vetland Hydi Primary Indica Surface W High Wate Saturation Water Mar Sediment I Drift Depo Algal Mat o Iron Depo: Inundation	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial Image agetated Concave Surfactions:	gery (B7) Face (B8)	Water-Staine Aquatic Faui True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior iurface (C ell Data (E	B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7)		Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) lows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2)
Type: Depth (inch Remarks: PYDROLO Vetland Hydi Primary Indica Surface W. High Water Mar Saturation Water Mar Sediment I Drift Depo Algal Mat of Iron Depoi Inundation Sparsely V Field Observat Surface Water	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial Image regetated Concave Surfactions: Present? Yes	gery (B7) Face (B8)	Water-Staine Aquatic Faur Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior iurface (C ell Data (E	B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)		Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) lows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2)
Type:	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial Image ater (A1) regetated Concave Surfactions: Present? Yes	gery (B7) Face (B8) No No	Water-Staine Aquatic Faur Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C ell Data (I ain in Rem	B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7)	ils (C6)	Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) ows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2) est (D5)
Type: Depth (inch Remarks: PYDROLO Vetland Hydi Primary Indica Surface W. High Water Mar Saturation Water Mar Sediment I Drift Depo Algal Mat of Iron Depoi Inundation Sparsely V Field Observat Surface Water	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial Image agetated Concave Surfactions: Present? Yes each? Yes	gery (B7) Face (B8) No No	Water-Staine Aquatic Faur Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior curface (C ell Data (E ain in Rem hes):	B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)	ils (C6)	Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) ows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2) est (D5)
Type: Depth (inch Remarks: PYDROLO Vetland Hydi Primary Indica Surface W. High Water Mar Saturation Water Mar Sediment I Drift Depo Algal Mat o Iron Depoi Inundatior Sparsely V Field Observa Surface Water Vater Table Pr Saturation Presincludes capilli	GY rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial Image agetated Concave Surfactions: Present? Yes each? Yes	gery (B7) Face (B8) No No No No No No	Water-Staine Aquatic Faui True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C ell Data (I hes): hes):	B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9) harks) 3	wet	Secondary Indicat Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum of two required racks (B6) erns (B10) fater Table (C2) ows (C8) ible on Aerial Imagery (C9) ressed Plants (D1) osition (D2) est (D5)

Midwest Region - Version 2.0 US Army Corps of Engineers

WETLAND 06

WETLAND DETERMINATION DATA FORM - Midwest Region

Investigator(s): _]. Lubbers, A. Hanner	Project/Site: AEP East Lima Station Exp	pansion	Ci	ty/County:	Allen County	<u>, </u>	Sampling Date: 26-Sep-17
	Applicant/Owner: _AEP				State:	OH Samp	oling Point: w-jbl-092617-06
Local relief (concive, convex, none): Concive Con	nvestigator(s): J. Lubbers, A. Hanner			Section, Towr	nship, Range	S 11 T 4S	R 7E
Description 1.0%	-						
Margin Distribution Blein		40.000220		longi	·		
re climatic/hydrologic conditions on the site hybical for this time of year? Yes				Long	04.029392		
re Vegetation			Voc	● No ○	(75		ation: N/A
Summary OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.						,	V (A) N (
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No within a Wetland? Yes N	re Vegetation	, or Hydrology \square	significantly di	sturbed?	Are "No	ormal Circumstances" pre	esent? Yes • No ·
Is the Sampled Area within a Wetland? Yes No No No No No No No N	<i>5</i> – , –	, , ,, =	, .		•		,
Is the Sampled Area within a Wetland? Yes No N			owing sam	pling poin	it locatio	ns, transects, imp	Jortant reatures, etc.
Within a Wetland Pydrology Present? Yes	Hydrophytic Vegetation Present?			To the	Sampled A	\rea	
VEGETATION - Use scientific names of plants. Species	Hydric Soil Present?						
VEGETATION - Use scientific names of plants. Dominant Species? Iree Stratum. (Plot size:) Absolute Rel. Strat. Tel. Stratum. Todal (Cover Status) Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC:	Wetland Hydrology Present?	Yes ● No ○					
Absolute Species No	Remarks:						
Absolute Rel. Strat. Indicator Yecover Status Stratus	VEGETATION - Use scie	entific names of pla	ants.				
1. Populus deltoides 20	Tree Stratum (Plot size:)		Rel.Strat.		Dominance Test wo	rksheet:
2.	1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			_			
3.					TAC	mat are Obt, racw,	(A)
4.	3.						
5.						Species Across All Stra	ita:
20				0.0%			
1. Populus deltoides 2. Cornus drummondii 3. Acer saccharinum 5.	-		20	= Total Cove	er	That Are OBL, FACV	N, or FAC: $100.0%$ (A/B)
2. Cornus drummondii 3. Acer saccharinum 5.	Sapling/Shrub Stratum (Plot size:)	-			Prevalence Index we	orksheet:
3. Acer saccharinum 4	1. Populus deltoides		15	✓ 42.9%	FAC	Total % Cover	r of: Multiply by:
4	2. Cornus drummondii		15	✓ 42.9%	FAC	OBL species	30 x 1 = 30
Description	3. Acer saccharinum		5	14.3%	FACW	FACW species	9 x 2 = <u>18</u>
Herb Stratum (Plot size:) 35				0.0%		FAC species	
1 1 1 1 1 1 1 1 1 1	5						
2. Typha angustifolia 15 ✓ 41.7% OBL Prevalence Index = B/A = 2.242 3. Fraxinus pennsylvanica 2 5.6% FACW Hydrophytic Vegetation Indicators: 4. Acer rubrum 2 5.6% FACW 1 - Rapid Test for Hydrophytic Vegetation 5. Echinochloa crus-galli 2 5.6% FACW ✓ 2 - Dominance Test is > 50% 6. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 8. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 9. 0 0.0% ✓ 4 - Morphological Adaptations ¹ (Provide support data in Remarks or on a separate sheet) 9. 0 0.0% ✓ Problematic Hydrophytic Vegetation ¹ (Explain) 1. Indicators of hydric soil and wetland hydrology me be present, unless disturbed or problematic. 2. 0 0.0% Vegetation 4. Morphological Adaptations ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology me be present, unless disturbed or problematic. 1. Indicators of hydric soil and wetland hydrology me be present, unless disturbed or problematic. Vegetation Present? Yes • No • N	Herb Stratum (Plot size:)	35	= Total Cove	er	UPL species	0 x 5 = 0
3. Fraxinus pennsylvanica 2	1 Juncus effusus		15	✓ 41.7%	OBL	Column Totals:	<u>91</u> (A) <u>204</u> (B)
4. Acer rubrum 5. Echinochloa crus-galli 6.	2. Typha angustifolia		15	41.7%	OBL	Prevalence Inde	ex = B/A = 2.242
4. Acer rubrum 5. Echinochloa crus-galli 6.	3. Fraxinus pennsylvanica		2	5.6%	FACW	Hydrophytic Vegetat	tion Indicators:
5. Echinochloa crus-galli 2 5.6% FACW 6. 0 0.0% 2 - Dominance Test is > 50% 7. 0 0.0% 3 - Prevalence Index is ≤ 3.0 ¹ 4 - Morphological Adaptations ¹ (Provide support data in Remarks or on a separate sheet) 9. 0 0.0% Problematic Hydrophytic Vegetation ¹ (Explain) 10. 36 = Total Cover Indicators of hydric soil and wetland hydrology me be present, unless disturbed or problematic. 1. 0 0.0% Hydrophytic Vegetation Present? Yes No	-		2	5.6%	FAC		
7.					FACW		, , , ,
8.							
9.				\neg			
10. Moody Vine Stratu (Plot size:) 0	-					data in Remarks	or on a separate sheet)
Woody Vine Stratu (Plot size:) 36 = Total Cover be present, unless disturbed or problematic. 1. 0 0.0% 2. 0.0% 0 = Total Cover Hydrophytic Vegetation Present? Yes ● No ○	-					Problematic Hyd	rophytic Vegetation $^{\mathrm{1}}$ (Explain)
1)		-	er		
Vegetation Present? Yes No No	1		0	0.0%			
0 = Total Cover Present? Yes • No ·	2.					V	
Remarks: (Include photo numbers here or on a separate sheet.)			0	= Total Cove	er		;
Remarks: (Include photo numbers here or on a separate sheet.)							
	Remarks: (Include photo numbers	s here or on a separate	sheet.)				

Midwest Region - Version 2.0

WETLAND 06 **SOIL** Sampling Point: w-ibl-092617-06

rofile Description: (D	Matrix	ne deptii n		edox Feat	ures		·	
Depth Color	(moist)	%	Color (moist)		Type 1	Loc2	- Texture	Remarks
0-18 10YR	4/1	95	10YR 5/6		С	М	Clay Loam	
						-		
-			-				-	
						-	-	
Type: C=Concentration,	· ·	, RM=Reduc	ed Matrix, CS=Cov	ered or Coa	ited Sand Gr	ains.	² Location: PL=Pore Lining	g. M=Matrix.
lydric Soil Indicators	3				•4		Indicators for Proble	ematic Hydric Soils ³ :
☐ Histosol (A1) ☐ Histic Epipedon (A2)				ed Matrix (S	54)		Coast Prairie Redox	x (A16)
Black Histic (A3)	,		Sandy Red	. ,			☐ Dark Surface (S7)	
Hydrogen Sulfide (A	4)		Stripped M	atrix (S6) :ky Mineral (Έ1)		☐ Iron Manganese M	asses (F12)
Stratified Layers (A5	5)		_				Very Shallow Dark	Surface (TF12)
2 cm Muck (A10)			✓ Depleted M	/ed Matrix (l latrix (E3)	۷)		Other (Explain in R	emarks)
Depleted Below Dark	k Surface (A1	1)		(F3) Surface (F6	٤)			•
Thick Dark Surface ((A12)		=	ark Surface	,		3	
Sandy Muck Mineral	(S1)			ressions (F8			³ Indicators of hydrop	hytic vegetation and y must be present,
☐ 5 cm Mucky Peat or	Peat (S3)		☐ Kedox Dep	163310113 (1.0)		unless disturbed	
estrictive Layer (if ol	bserved):							
cocincula Edyon (ii oi								
Type:								
, ,							Hydric Soil Present?	Yes ● No ○
Type:							Hydric Soil Present?	Yes No
Type: Depth (inches):							Hydric Soil Present?	Yes ● No ○
Type: Depth (inches):							Hydric Soil Present?	Yes ● No ○
Type: Depth (inches):							Hydric Soil Present?	Yes ● No ○
Type: Depth (inches):							Hydric Soil Present?	Yes ● No ○
Type: Depth (inches): Remarks:							Hydric Soil Present?	Yes No
Type: Depth (inches): Remarks: YDROLOGY	dicatava						Hydric Soil Present?	Yes No
Type: Depth (inches): Remarks: YDROLOGY /etland Hydrology In		s required: c	heck all that apply					
Type: Depth (inches): emarks: YDROLOGY Vetland Hydrology In rimary Indicators (minimary Indicators (mi		s required; c			G (PD)		Secondary Indica	ators (minimum of two required
Type: Depth (inches): emarks: YDROLOGY Yetland Hydrology In rimary Indicators (mining) Surface Water (A1)	mum of one is	s required; c	☐ Water-St	ained Leave	s (B9)		Secondary Indica	ators (minimum of two required_ Cracks (B6)
Type:	mum of one is	s required; c	Water-St	ained Leave auna (B13)	,		Secondary Indica Secondary Indica Surface Soil (ators (minimum of two required Cracks (B6) terns (B10)
Type: Depth (inches): emarks: YDROLOGY etland Hydrology In rimary Indicators (minin Surface Water (A1) High Water Table (A Saturation (A3)	mum of one is	s required; c	Water-Standard Marker-Standard	ained Leave auna (B13) atic Plants (B14)		Secondary Indica Surface Soil (Drainage Pat	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2)
Type:	mum of one is	s required; c	Water-St Aquatic F True Aqu Hydroger	ained Leave auna (B13) atic Plants (n Sulfide Ode	B14) or (C1)	Deate (C2)	Secondary Indica Surface Soil (Drainage Pat Dry Season \ Crayfish Burr	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8)
Type:	mum of one is	s required; c	Water-St Aquatic F True Aqu Hydroger Oxidized	ained Leave auna (B13) atic Plants (a Sulfide Odo Rhizosphere	B14) or (C1) es on Living F	Roots (C3)	Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9)
Type:	mum of one is	s required; c	Water-St Aquatic F True Aqu Hydroger Oxidized Presence	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced	B14) or (C1) es on Living F Iron (C4)		Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr Saturation Vi Stunted or St	ators (minimum of two required Cracks (B6) terns (B10) Nater Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1)
Type:	mum of one is	s required; c	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir	ained Leave: auna (B13) atic Plants (n Sulfide Odo Rhizosphere of Reduced on Reductio	B14) or (C1) es on Living F Iron (C4) on in Tilled So		Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is 32) B2) 34)		Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc C7)		Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr Saturation Vi Stunted or St	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is 12) 132) 134) 13 Aerial Imag	ery (B7)	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C Well Data (B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)		Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is 12) 132) 134) 13 Aerial Imag	ery (B7)	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)		Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is 12) 132) 134) 13 Aerial Imag	ery (B7)	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C Well Data (B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)		Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is B2) B34) n Aerial Imag Concave Surfa	ery (B7) ace (B8)	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or	ained Leave: auna (B13) atic Plants (a Sulfide Odi Rhizosphere of Reduced on Reductio k Surface (C Well Data (kplain in Rer	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)		Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is 12) B2) B34) In Aerial Imag Concave Surfa	ery (B7) ace (B8)	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C Well Data (B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)		Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is B2) B34) n Aerial Imag Concave Surfa	ery (B7) ace (B8)	Water-St. Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Leave: auna (B13) atic Plants (a Sulfide Odi Rhizosphere of Reduced on Reductio k Surface (C Well Data (kplain in Rer	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)	bils (C6)	Secondary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or Si Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	mum of one is 12) B2) 34) n Aerial Imag Concave Surfa Yes Yes	ery (B7) ace (B8) No •	Water-St. Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Leave: auna (B13) atic Plants (a Sulfide Ode Rhizosphere of Reduced on Reductio k Surface (C Well Data (kplain in Rer inches):	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7)	bils (C6)	Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	mum of one is 12) B2) 34) n Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No No No No	Water-St. Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C Well Data (coplain in Rer inches): inches): inches):	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7) (D9) onarks)	bils (C6)	Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or So Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	mum of one is 12) B2) 34) n Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No No No No	Water-St. Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C Well Data (coplain in Rer inches): inches): inches):	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7) (D9) onarks)	bils (C6)	Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or So Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	mum of one is 12) B2) 34) n Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No No No No	Water-St. Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Leave: auna (B13) atic Plants (a Sulfide Odo Rhizosphere of Reduced on Reductio k Surface (C Well Data (coplain in Rer inches): inches): inches):	B14) or (C1) es on Living I Iron (C4) on in Tilled Sc (C7) (D9) onarks)	bils (C6)	Secondary Indica Surface Soil o Drainage Pat Dry Season v Crayfish Burr Saturation Vi Stunted or So Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) terns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)

WETLAND 07

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: AEP East Lima Station Exp	ansion		Cit	y/County:	Allen County	y Sampling Date: 26-Sep-17
Applicant/Owner: AEP					State:	: _OH Sampling Point: W-jbl-092617-0 2
nvestigator(s): J. Lubbers, A. Hanner				Section, Towr	ship, Range	:: S 11 T 4S R 7E
andform (hillslope, terrace, etc.): Swal				1	Local relief (concave, convex, none): concave
lope: 1.0% 0.6 ° Lat.:	40 802148	13		Long: -	84.0299020	6 Datum: NAD 83
					07.0233020	
oil Map Unit Name: Pewamo silty o			s s Vec	• No ()	/If no or	NWI classification: N/A explain in Remarks.)
re climatic/hydrologic conditions on the						
re Vegetation , Soil ,	, or Hydrol		significantly dis		Are "No	ormal Circumstances" present? Yes Vo No V
re Vegetation	, or Hydrolo	-,	naturally proble		-	eded, explain any answers in Remarks.) ons, transects, important features, etc.
	Yes ①	No O	Julia Sam		- Iocacio	ms, transcets, important reactives, etc.
Hydrophytic Vegetation Present?	Yes •	No O		Is the	Sampled A	Area
Hydric Soil Present?	Yes •	No O		withi	n a Wetland	d? Yes ◉ No ○
Wetland Hydrology Present?	Yes 💌	NO U				
Remarks:						
VEGETATION - Use scie	ntific nar	nes of nla	ints	Dominant		
VEGET/(1701)				- Species?	To disates:	Dominance Test worksheet:
Tree Stratum (Plot size:)		Absolute % Cover	Rel.Strat. Cover	Indicator Status	
1			0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2.				0.0%		
3				0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.				0.0%		
5			0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/E
			0	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/E
<u>Sapling/Shrub Stratum (</u> Plot size:		_)		_		Prevalence Index worksheet:
1			0	0.0%		Total % Cover of: Multiply by:
2				0.0%		OBL species <u>75</u> x 1 = <u>75</u>
3			0_	0.0%		FACW species <u>15</u> x 2 = <u>30</u>
4 5.				0.0%		FAC species $0 \times 3 = 0$
						FACU species 0 x 4 = 0
<u>Herb Stratum</u> (Plot size:)			= TOTAL COVE	er .	UPL species <u>0</u> x 5 = <u>0</u>
1, Typha angustifolia			45	50.0%	OBL	Column Totals: 90 (A) 105 (B)
2. Scirpus cyperinus				33.3%	OBL	Prevalence Index = B/A =1.167
3. Juncus torreyi				11.1%	FACW	Hydrophytic Vegetation Indicators:
4. Echinochloa crus-galli				5.6%	FACW	✓ 1 - Rapid Test for Hydrophytic Vegetation
5			0_	0.0%		✓ 2 - Dominance Test is > 50%
6 7.				0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.				0.0%		4 - Morphological Adaptations 1 (Provide supporti
9.				0.0%		data in Remarks or on a separate sheet)
				0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10.				-		$rac{1}{r}$ Indicators of hydric soil and wetland hydrology mus
		,	90	= Total Cove	-1	he present unless districted as socialisments
10(Plot size:		.)			-1	be present, unless disturbed or problematic.
(Plot size:		.)	0	0.0%		
-		.)	0	0.0%		Hydrophytic Vegetation
(Plot size:		,)	0	0.0%		Hydrophytic

WETLAND 07 **SOIL** Sampling Point: <u>-ibl-092617-07</u>

Profile Descr	iption: (Descr	ibe to the	depth nee	ded to documen	t the indi	cator or c	onfirm the	e absence of indicators.)	
Depth		itrix			lox Featu				
(inches)	Color (mo	ist)	%	Color (moist)	<u>%</u>	Type 1	Loc2	Texture	Remarks
0-18	10YR	4/1	90	10YR 6/8	10	C	M	Clay Loam	
¹ Type: C=Cond	centration, D=D	epletion, R	M=Reduced	Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains.	² Location: PL=Pore Lining. N	1=Matrix.
Hydric Soil I	ndicators:			<u> </u>				Indicators for Problem	atic Hydric Soils ³ :
Histosol (A				☐ Sandy Gleyed	Matrix (S4	4)			•
I — `	pedon (A2)			Sandy Redox		,		Coast Prairie Redox (A	(16)
Black Histi	ic (A3)			Stripped Matr				☐ Dark Surface (S7)	
	Sulfide (A4)			Loamy Mucky	Mineral (F	=1)		☐ Iron Manganese Mass	
Stratified I	Layers (A5)			Loamy Gleyed				Very Shallow Dark Su	face (TF12)
2 cm Mucl	k (A10)			✓ Depleted Mati	rix (F3)	•		Uther (Explain in Rem	arks)
_ `	Below Dark Surf	ace (A11)		Redox Dark S	urface (F6)			
	k Surface (A12)			Depleted Dark	s Surface ((F7)		³ Indicators of hydrophyt	ic vegetation and
	ck Mineral (S1)			Redox Depres	sions (F8)			wetland hydrology m	nust be present,
5 cm Muck	ky Peat or Peat	(S3)						unless disturbed or	problematic.
Restrictive La	ayer (if observ	red):							
Type:								Hydric Soil Present?	Yes No
Depth (inch	nes):							nyuric Son Present?	res S No C
Remarks:									
HYDROLO	GY								
Wetland Hyd	rology Indicat	ors:							
Primary Indica	itors (minimum	of one is r	equired; che	eck all that apply)				Secondary Indicator	rs (minimum of two required_
☐ Surface W	ater (A1)			☐ Water-Stain	ed Leaves	(B9)		✓ Surface Soil Cra	cks (B6)
_	er Table (A2)			Aquatic Fau		,		Drainage Patter	` ,
☐ Saturation	ı (A3)			True Aquati	c Plants (B	314)		☐ Dry Season Wat	er Table (C2)
☐ Water Mar	rks (B1)			Hydrogen S	ulfide Odo	r (C1)		Crayfish Burrow	s (C8)
Sediment	Deposits (B2)			Oxidized Rh	izospheres	on Living I	Roots (C3)	Saturation Visib	le on Aerial Imagery (C9)
☐ Drift Depo	sits (B3)			Presence of	Reduced 1	Iron (C4)		Stunted or Street	ssed Plants (D1)
Algal Mat	or Crust (B4)			Recent Iron	Reduction	n in Tilled S	oils (C6)	✓ Geomorphic Pos	sition (D2)
☐ Iron Depo	sits (B5)			☐ Thin Muck S	Surface (C7	7)		✓ FAC-Neutral Tes	st (D5)
Inundation	n Visible on Aeri	ial Imagery	/ (B7)	☐ Gauge or W	'ell Data (E	09)			
Sparsely V	egetated Conca	ave Surface	e (B8)	Other (Expla	ain in Rem	arks)			
Field Observa	ations:								
Surface Water	Present?	Yes 🔾	No 💿	Depth (inc	thes):		_		
Water Table Pr	resent?	Yes \bigcirc	No 💿	Denth (inc	thes):				
Saturation Pres							Wetl	land Hydrology Present?	Yes No
(includes capill	ary fringe)	Yes O		Depth (inc			-		
Describe Reco	orded Data (st	tream gau	ige, monito	oring well, aerial	photos, I	previous ir	nspections	s), if available:	
Remarks:									

WETLAND DETERMINATION DATA FORM - Midwest Region

Landform (hillslope, terrace, etc.): Flat Slope: 1.0% 0.6 Lat: 40.7998826 Soil Map Unit Name: Pewamo silty clay loam (PmA) Are climatic/hydrologic conditions on the site typical for this time of year? Yes Are Vegetation , Soil , or Hydrology significantly disturance Vegetation , Soil , or Hydrology naturally problem SUMMARY OF FINDINGS - Attach site map showing samplify Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: soybean field VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:) Absolute % Cover 0 0 0 0 0 0 0 0 0 0 0 0 0	Long.: -84.029935 No (If no, extract) Are "No attic? (If need)	Datum: NAD 83 NWI classification: N/A Explain in Remarks.) Dormal Circumstances" present? Yes No O Ended, explain any answers in Remarks.) Ins, transects, important features, etc. Area d? Yes No O Dominance Test worksheet:
Are Vegetation	Local relief (composite to the composite	Datum: NAD 83 NWI classification: N/A Explain in Remarks.) Dormal Circumstances" present? Yes No O Ended, explain any answers in Remarks.) Ins, transects, important features, etc. Area d? Yes No O Dominance Test worksheet:
Andform (hillslope, terrace, etc.): Flat Silope:1.0%	No (If no, expressed) No (If no, expressed) Is the Sampled within a Wetland Comminant Species? Rel.Strat. Cover Indicator Indicator Status	Datum: NAD 83 NWI classification: N/A Explain in Remarks.) Dormal Circumstances" present? Yes No O Ended, explain any answers in Remarks.) Ins, transects, important features, etc. Area d? Yes No O Dominance Test worksheet:
Are Climatic/hydrologic conditions on the site typical for this time of year? Yes Are Vegetation	No (If no, extended? Are "No atic? (If need) (NWI classification: N/A Explain in Remarks.) Formal Circumstances" present? Yes No O Eded, explain any answers in Remarks.) Ins, transects, important features, etc. Area d? Yes No O Dominance Test worksheet:
Are Climatic/hydrologic conditions on the site typical for this time of year? Yes Are Vegetation	No (If no, extended? Are "No atic? (If need) (NWI classification: N/A Explain in Remarks.) Formal Circumstances" present? Yes No O Eded, explain any answers in Remarks.) Ins, transects, important features, etc. Area d? Yes No O Dominance Test worksheet:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes Are Vegetation	Is the Sampled within a Wetland Cominant Species? Rel.Strat. Cover Status	promal Circumstances" present? Yes No No deded, explain any answers in Remarks.) Ins, transects, important features, etc. Area d? Yes No Dominance Test worksheet:
Are Vegetation	Is the Sampled within a Wetland Cominant Species? Rel.Strat. Cover Status	ormal Circumstances" present? Yes No O Inded, explain any answers in Remarks.) Ins, transects, important features, etc. Area Id? Yes No Dominance Test worksheet:
SUMMARY OF FINDINGS - Attach site map showing samplishydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: soybean field VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:) 2	Is the Sampled within a Wetland Cominant Species? Rel.Strat. Indicator Cover Status	ns, transects, important features, etc. Area d? Yes O No O Dominance Test worksheet:
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: soybean field VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Is the Sampled within a Wetland Cominant Species? Rel.Strat. Indicator Cover Status	ns, transects, important features, etc. Area d? Yes O No O Dominance Test worksheet:
Hydrophytic Vegetation Present? Yes No Phydric Soil Present? Yes No Wetland Hydrology Present? Yes No Vegetation Present P	Is the Sampled within a Wetland Dominant Species? Rel.Strat. Indicator Cover Status 0.0%	Area d? Yes O No O Dominance Test worksheet:
Hydric Soil Present? Wetland Hydrology Present? Remarks: soybean field VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Dominant Species? Rel.Strat. Indicator Cover Status	Dominance Test worksheet:
Wetland Hydrology Present? Yes No ● Remarks: soybean field VEGETATION - Use scientific names of plants.	Dominant Species? Rel.Strat. Indicator Cover Status	Dominance Test worksheet:
Remarks: soybean field	Species? Rel.Strat. Cover 0.0% Indicator Status	
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:) Absolute % Cover 1	Species? Rel.Strat. Cover 0.0% Indicator Status	
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Species? Rel.Strat. Indicator Cover Status	
Tree Stratum (Plot size:) Absolute % Cover 1. 0 0 2. 0 0 3. 0 0 4. 0 0 5. 0 0	Species? Rel.Strat. Indicator Cover Status	
Tree Stratum (Plot size:) Absolute % Cover 1. 0 0 2. 0 0 3. 0 0 4. 0 0 5. 0 0	Species? Rel.Strat. Indicator Cover Status	
Tree Stratum (Plot size:) Absolute % Cover 1. 0 0 2. 0 0 3. 0 0 4. 0 0 5. 0 0	Species? Rel.Strat. Indicator Cover Status	
Tree Stratum (Plot size:) % Cover 1. 0 2 3. 0 4 4. 0 5 5. 0 6	Cover Status 0.0%	
2. 0 C C C C C C C C C C C C C C C C C C		Number of Dominant Species
2. 0 C C C C C C C C C C C C C C C C C C	0.0%	That are OBL, FACW, or FAC:
3. 0 C 4. 0 C 5. 0 C		Total Number of Demissort
4. <u>0</u> 5. <u>0</u> 0	0.0%	Total Number of Dominant Species Across All Strata: 1 (B)
	0.0%	
0 =	0.0%	Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
	Total Cover	That Aic obe, FACW, of FAC.
Sapling/Shrub Stratum (Plot size:)	٦	Prevalence Index worksheet:
1	0.0%	Total % Cover of: Multiply by:
2	0.0%	OBL species 0 x 1 = 0
3	0.0%	FACW species $0 \times 2 = 0$
4	0.0%	FAC species 0 x 3 = 0
	Total Cover	FACU species 15 x 4 = 60 UPL species 85 x 5 = 425
Herb Stratum (Plot size:)	Total Cover	
1, Glycine max 85	85.0% UPL	Column Totals: <u>100</u> (A) <u>485</u> (B)
2. Ambrosia artemisiifolia 10	10.0% FACU	Prevalence Index = $B/A = 4.850$
3. Dipsacus fullonum 5		Hydrophytic Vegetation Indicators:
4	0.0%	1 - Rapid Test for Hydrophytic Vegetation
5. 0	0.0%	2 - Dominance Test is > 50%
6	0.0%	3 - Prevalence Index is ≤3.0 ¹
7. <u> </u>	0.0%	4 - Morphological Adaptations 1 (Provide supporting
9. 0	0.0%	data in Remarks or on a separate sheet)
10.	0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
	Total Cover	$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 0	0.0%	
2. 0	0.0%	Hydrophytic Vegetation
	Total Cover	Present? Yes No •
		<u>l</u>

UPLAND 01 **SOIL** Sampling Point: <u>I-ibI-092617-01</u>

	pth needed to document the indicator or co Redox Features		absence of maleutors,	
Depth Matrix (inches) Color (moist) %	Color (moist) % Type 1	Loc ²	Texture	Remarks
0-10 10YR 4/3 100			Silty Clay Loam	
Гуре: C=Concentration, D=Depletion, RM=F	Reduced Matrix, CS=Covered or Coated Sand Gra	ins. 2	Location: PL=Pore Lining	g. M=Matrix.
lydric Soil Indicators:			Indicators for Probl	ematic Hydric Soils ³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)			•
Histic Epipedon (A2)	Sandy Redox (S5)		Coast Prairie Redo	x (A16)
Black Histic (A3)	Stripped Matrix (S6)		☐ Dark Surface (S7)	(512)
☐ Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)		☐ Iron Manganese M	
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)		☐ Very Shallow Dark	, ,
☐ 2 cm Muck (A10)	Depleted Matrix (F3)		Other (Explain in F	Remarks)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)			
Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)		³ Indicators of hydrop	hytic vegetation and
Sandy Muck Mineral (S1)	Redox Depressions (F8)		wetland hydrolog	y must be present,
5 cm Mucky Peat or Peat (S3)			uniess disturbed	l or problematic.
estrictive Layer (if observed):				
Type:			Hydric Soil Present?	Yes O No 💿
			Hydric Soil Present?	Yes ○ No ●
Type: Depth (inches): emarks:			Hydric Soil Present?	Yes ○ No ●
Type: Depth (inches): emarks: YDROLOGY			Hydric Soil Present?	Yes O No O
Type: Depth (inches): emarks: YDROLOGY Vetland Hydrology Indicators:				
Type: Depth (inches): emarks: YDROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one is requirement)	red; check all that apply)		Secondary Indica	ators (minimum of two required
Type:	red; check all that apply)		Secondary Indica	ators (minimum of two required_ Cracks (B6)
Type: Depth (inches): emarks: **TOROLOGY** etland Hydrology Indicators: imary Indicators (minimum of one is required by the surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13)		Secondary Indication Surface Soil Drainage Pat	ators (minimum of two required Cracks (B6) tterns (B10)
Type: Depth (inches): emarks: **TOROLOGY** **etland Hydrology Indicators: imary Indicators (minimum of one is required by the surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)		Secondary Indication Surface Soil Drainage Pat	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2)
Type: Depth (inches): emarks: **TOROLOGY** **etland Hydrology Indicators: imary Indicators (minimum of one is required by the surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	pots (C3)	Secondary Indica Surface Soil Drainage Pat Dry Season V Crayfish Burd	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R	bots (C3)	Secondary Indication Surface Soil Drainage Pat Dry Season V Crayfish Buri	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R		Secondary Indication Surface Soil Drainage Pati Crayfish Burn Saturation V Stunted or S	ators (minimum of two required_ Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So		Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7)		Secondary Indication Surface Soil Drainage Pati Crayfish Burn Saturation V Stunted or S	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9)		Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9)		Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)		Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9)		Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)		Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	ls (C6)	Secondary Indication of Surface Soil Drainage Pation of Crayfish Burity Saturation V Stunted or S Geomorphic	actors (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Wetlan	Secondary Indicators Surface Soil Drainage Pat Crayfish Buri Saturation V Stunted or S Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Wetlan	Secondary Indicators Surface Soil Drainage Pat Crayfish Buri Saturation V Stunted or S Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
Type:	red; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Wetlan	Secondary Indicators Surface Soil Drainage Pat Crayfish Buri Saturation V Stunted or S Geomorphic FAC-Neutral	ators (minimum of two required Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)

WETLAND DETERMINATION DATA FORM - Midwest Region

	on		Cit	ty/Co	ounty:	Allen County	У			Samplin	g Date:	26-	Sep-17
Applicant/Owner: AEP						State:	: OH	S	ampling I	Point:	upl-	jbl-092	617-02
nvestigator(s): J. Lubbers, A. Hanner				Section	on, Town	ship, Range	e: S 11	 т_3	BS	R 7	E .		
andform (hillslope, terrace, etc.): Flat					L	ocal relief (concave, co						
llope:	700149	Q.			Long:	-84.028921	10			Dati	ım: N	AD 83	
					Long	04.020321	1.9	NIM/T alpo	oification	_			
oil Map Unit Name: Blount silt loam (Bl			r a Vac	• I	No O	(If no o	xplain in Re	NWI class	SIIICauoii	N/A			
re climatic/hydrologic conditions on the site							•	,			Yes	■ No	0
	r Hydrolo		significantly dis			Are "No	ormal Circu	ımstances"	present	?	165	• INC	,
re Vegetation	r Hydrold ch site		naturally proble			•	eded, expla ons, tran	•			-	s, etc.	
	es O	No 💿	·····g ••····		 		,					-,	
	es O	No •			Is the	Sampled A	Area	_					
,	es O	No •			withir	n a Wetland	^{d?} Ye	s O No	\odot				
Trocana Tryanology Troconci	es \bigcirc	NO S											
Remarks:													
VEGETATION - Use scientif	fic nar	nes of nla	nts	Do	minant								
12321711311				– Sp	ecies?	T . P t .	Damina	nce Test	aulrah.				
Tree Stratum(Plot size:)		Absolute % Cover		l.Strat. Cover	Indicator Status							
1			0		0.0%			of Domina OBL, FAC				0	(A)
2					0.0%								
3					0.0%			umber of D Across All				1	(B)
4					0.0%		ļ ·				_		
5				\square	0.0%			t of domir re OBL, F				0.0%	(A/B)
			0	= T	otal Cove	r	That A	ic obt, i	ACVV, OI	TAC.			_ (, ,
_Sapling/Shrub Stratum (Plot size:		_)					Prevale	nce Index	worksl	neet:			
1				<u>H</u> -	0.0%			otal % Co			Multiply		_
2 3.				H-	0.0%			pecies			x 1 =	0	_
1				H-	0.0%			species pecies			x 2 = x 3 =	0	_
4 5.			0	П	0.0%			species			x 4 =	0	_
				 = T	otal Cove			pecies	100 0		x 5 =	<u>400</u> 0	_
Herb Stratum (Plot size:	_)						· '	•					(D)
1. Dipsacus fullonum				<u>~</u> _	100.0%	FACU	Colum	n Totals:	100)	(A)	400	_ (B)
2				<u> </u>	0.0%		Pre	evalence 1	index =	B/A =		4.000	
3 4.				H	0.0%		Hydrop	hytic Veg	etation 1	Indicat	tors:		
4 5.				_	0.0%		☐ 1-I	Rapid Tes	t for Hy	drophy	rtic Vege	etation	
6.				\Box	0.0%		☐ 2-I	Dominanc	e Test is	s > 50°	%		
7.				$\overline{\Box}$	0.0%		☐ 3 - F	Prevalenc	e Index	is ≤3.	0 1		
8.			0		0.0%		4 - 1	Morpholog	gical Ada	aptatio	ons ¹ (Pi	rovide su	upporting
9			0		0.0%			in Rema Diematic I		-		-	lain)
10			0		0.0%					•	•		•
Woody Vine Stratu (Plot size:)	100	= T	otal Cove	r	± Indic	ators of h ent, unle	ydric so ss distui	il and rbed o	wetland r proble	hydrolo matic.	ogy must
1			0		0.0%								
2					0.0%		Hydror Vegeta						
2													
۷			0	= T	otal Cove	r	Presen	t?	Yes 🔾	No	•		

UPLAND 02 **SOIL**

Sampling Point: I-ibl-092617-02

Profile Description: (Describe to the dep Depth Matrix	Redox Features			
(inches) Color (moist) %	Color (moist) % Type	Loc2	Texture	Remarks
0-18 10YR 3/2 100			Silty Clay Loam	
Type: C=Concentration, D=Depletion, RM=R	educed Matrix, CS—Covered or Coated Sand	Grains	² Location: PL=Pore Lining.	M-Matriy
lydric Soil Indicators:	reduced Flathy, CS-Covered of Coated Sand	Grains.		
Histosol (A1)	Sandy Gleyed Matrix (S4)		Indicators for Problem	natic Hydric Soils?:
Histic Epipedon (A2)	Sandy Redox (S5)		Coast Prairie Redox (A16)
Black Histic (A3)	Stripped Matrix (S6)		Dark Surface (S7)	
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)		Iron Manganese Mas	
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)		☐ Very Shallow Dark Su	ırface (TF12)
2 cm Muck (A10)	Depleted Matrix (F3)		Other (Explain in Rer	narks)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)			
Thick Dark Surface (A12)	Depleted Dark Surface (F7)		³ Indicators of hydrophy	tic vegetation and
Sandy Muck Mineral (S1)	Redox Depressions (F8)		wetland hydrology i	nust be present,
5 cm Mucky Peat or Peat (S3)			unless disturbed o	r problematic.
Restrictive Layer (if observed):				
testrictive Layer (ii observea).				
Type:			Hydric Soil Procent?	Vac O Na 🔘
, , ,			Hydric Soil Present?	Yes O No O
Type: Depth (inches): Remarks:			Hydric Soil Present?	Yes O No •
Type: Depth (inches): Remarks:			Hydric Soil Present?	Yes O No •
Type:				
Type:	ed; check all that apply)		Secondary Indicato	ors (minimum of two required
Type:	ed; check all that apply) Water-Stained Leaves (B9)		Secondary Indicato	ors (minimum of two required acks (B6)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13)		Secondary Indicato	ors (minimum of two required acks (B6) rns (B10)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)		Secondary Indicate Surface Soil Cr. Drainage Patte Dry Season Wa	ors (minimum of two required acks (B6) rns (B10) ater Table (C2)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Darks (CD)	Secondary Indicato Surface Soil Cr. Drainage Patte Dry Season Wa	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir	• , ,	Secondary Indicate Surface Soil Cr. Drainage Patte Dry Season Wa Crayfish Burrou Saturation Visil	ors (minimum of two required acks (B6) rns (B10) iter Table (C2) vs (C8) ole on Aerial Imagery (C9)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4))	Secondary Indicate Surface Soil Cr. Drainage Patte Dry Season Wa Crayfish Burrov Saturation Visil	ors (minimum of two required acks (B6) rns (B10) ater Table (C2) ws (C8) ole on Aerial Imagery (C9) assed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled)	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7))	Secondary Indicate Surface Soil Cr. Drainage Patte Dry Season Wa Crayfish Burrov Saturation Visil	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9))	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9))	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9))	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9))	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks))	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	I Soils (C6)	Secondary Indicato Surface Soil Crack Drainage Patte Dry Season Water Crayfish Burrov Saturation Visil Stunted or Street Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	I Soils (C6)	Secondary Indicator Surface Soil Crace Drainage Patte Dry Season Was Crayfish Burrov Saturation Visil Stunted or Stree Geomorphic Po	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1) est (D5)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	I Soils (C6)	Secondary Indicator Surface Soil Cr. Drainage Patte Dry Season Wa Crayfish Burrov Saturation Visil Stunted or Stre Geomorphic Pc FAC-Neutral Te	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1) est (D5)
Type:	ed; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	I Soils (C6)	Secondary Indicator Surface Soil Cr. Drainage Patte Dry Season Wa Crayfish Burrov Saturation Visil Stunted or Stre Geomorphic Pc FAC-Neutral Te	ors (minimum of two required acks (B6) rns (B10) oter Table (C2) vs (C8) ole on Aerial Imagery (C9) essed Plants (D1) est (D5)

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Exp	ansion		Cit	y/County:	Allen County	<u> </u>	Sampling Date: 26-Sep-17
Applicant/Owner: AEP					State:	OH Samplir	ng Point: upl-jbl-092617-03
Investigator(s): J. Lubbers, A. Hanner				Section, Tow	 nship, Range	: S 11 T 3S	R 7E
andform (hillslope, terrace, etc.): Flat					Local relief (concave, convex, none): n	
Slope: 1.0% 0.6 ° Lat.:	40 800367	'3		Long:	-84.0277892	—)	Datum: NAD 83
	-				01.0277032	NWI classificati	
Soil Map Unit Name: <u>Pewamo silty or</u> Are climatic/hydrologic conditions on the			yeara Yes	● No ○	(If no e	xplain in Remarks.)	M/A
Are Vegetation . , Soil .	or Hydrolo ,		significantly dis		, ,		ent? Yes • No •
	•					ormal Circumstances" prese	
Are Vegetation	, or Hydrolo ttach site		naturally proble wing sam		-	ded, explain any answers in ns, transects, impo	•
Hydrophytic Vegetation Present?	Yes O	No ①					·
Hydric Soil Present?	Yes O	No •			e Sampled /		
•	Yes O	No •		with	in a Wetland	d? Yes ○ No •	
Wetland Hydrology Present?	103 0	110 0					_
Remarks:							
VEGETATION - Use scie	ntific nan	nes of pla	nts.	Dominant	:		
			Absolute	 Species? Rel.Strat. 		Dominance Test work	sheet:
Tree Stratum (Plot size:)		% Cover	Cover	Status	Number of Dominant Sp	ecies
1				0.0%		That are OBL, FACW, or	
2				0.0%		Total Number of Domina	ent
3				0.0%_		Species Across All Strata	
4				0.0%		Percent of dominant S	Snecies
5						That Are OBL, FACW,	
_Sapling/Shrub Stratum (Plot size:		1		= Total Cov	er	Daniel and Tades	lash a ak
_		_	0	0.0%		Prevalence Index wor	
1 2.				0.0%		Total % Cover of OBL species	$ \begin{array}{ccc} $
3.				0.0%		FACW species	$\frac{0}{0}$ $x^2 = \frac{0}{0}$
4.				0.0%			15 x 3 = 45
5.			0	0.0%			85 x 4 = 340
Herb Stratum (Plot size:)		0	= Total Cov	er	UPL species	0 x 5 = 0
1. Solidago altissima			70	✓ 70.0%	FACU	Column Totals:	100 (A) <u>385</u> (B)
2 Dinapaga fullanum			15	15.0%	FACU		
3. Poa pratensis			10	10.0%	FAC	Prevalence Index	
4. Toxicodendron radicans			5	5.0%	FAC	Hydrophytic Vegetatio	
5.			0	0.0%		I .	Hydrophytic Vegetation
6			0	0.0%		2 - Dominance Tes	
7			0	0.0%		3 - Prevalence Ind	
			0	0.0%			Adaptations ¹ (Provide supporting r on a separate sheet)
8						uata III Kelilai KS U	i on a separate sneet,
9				0.0%		l	ophytic Vegetation ¹ (Explain)
-			0	0.0%		☐ Problematic Hydro	phytic Vegetation ¹ (Explain)
9.)			er	Problematic Hydro	
9.)	0	0.0%	er	Problematic Hydro	phytic Vegetation 1 (Explain) soil and wetland hydrology must
9. 10. Woody Vine Stratu (Plot size:)	100	0.0% = Total Cov	eer	Problematic Hydro 1 Indicators of hydric be present, unless dis Hydrophytic	phytic Vegetation ¹ (Explain) soil and wetland hydrology must turbed or problematic.
9. 10. Woody Vine Stratu (Plot size:)	100	0.0% = Total Cov		Problematic Hydro	phytic Vegetation ¹ (Explain) soil and wetland hydrology must turbed or problematic.
9. 10. Woody Vine Stratu (Plot size:)	0 100	0.0% = Total Cov 0.0% 0.0% 0.0%		Problematic Hydro 1 Indicators of hydric be present, unless dis Hydrophytic Vegetation	phytic Vegetation ¹ (Explain) soil and wetland hydrology must turbed or problematic.

UPLAND 03 **SOIL** Sampling Point: I-ibl-092617-03

Depth	Matrix			lox Featur				
	olor (moist)	<u> </u>	Color (moist)		Type 1	Loc ²	Texture	Remarks
0-18 10	YR 5/2	95	10YR 5/6		<u> </u>	M	Clay Loam	
						-		
·		n, RM=Reduce	ed Matrix, CS=Cover	ed or Coate	d Sand Gra	ains.	² Location: PL=Pore Lining. M=M	
Hydric Soil Indica Histosol (A1)	tors:		Sandy Gleyed	Matrix (CA)			Indicators for Problematic	Hydric Soils ³ :
Histic Epipedon	(A2))		Coast Prairie Redox (A16)	
Black Histic (A3)			Sandy Redox				Dark Surface (S7)	
Hydrogen Sulfid			Stripped Matri	` '			☐ Iron Manganese Masses (=12)
Stratified Layers			Loamy Mucky	-			Very Shallow Dark Surface	e (TF12)
2 cm Muck (A10			Loamy Gleyed	•)		Other (Explain in Remarks	
_ `	Dark Surface (A1	11)	Depleted Matr	. ,			care (Explain in Rendika	,
Thick Dark Surfa	-	,	Redox Dark S	` '			2	
Sandy Muck Min	, ,		Depleted Dark	•	7)		³ Indicators of hydrophytic ve	
5 cm Mucky Pea	` ,		Redox Depres	sions (F8)			wetland hydrology must unless disturbed or pro	
Restrictive Layer (
Туре:								
Depth (inches):_							Hydric Soil Present? Yes	; ○ No •
) a ma a ul ca c								
кетагкѕ:								
YDROLOGY	y Indicators:							
IYDROLOGY Wetland Hydrolog	-	is required; cl	neck all that apply)				Secondary Indicators (n	ninimum of two required
YDROLOGY Vetland Hydrolog	minimum of one	is required; cl	neck all that apply)	ed Leaves (B9)		Secondary Indicators (n	ninimum of two required (B6)
YDROLOGY Vetland Hydrolog Primary Indicators (i	minimum of one i	is required; cl		-	B9)			(B6)
Vetland Hydrolog Primary Indicators (i Surface Water (i High Water Tab	minimum of one in the second s	is required; cl	Water-Stain	na (B13)	•		Surface Soil Cracks Drainage Patterns ((B6) 310)
IYDROLOGY Wetland Hydrolog Primary Indicators (i Surface Water (i High Water Tab	minimum of one in the state of	is required; cl	Water-Stain Aquatic Fau	na (B13) c Plants (B1	.4)		Surface Soil Cracks	(B6) 310) able (C2)
Vetland Hydrology Primary Indicators (i Surface Water (i High Water Tabi Saturation (A3) Water Marks (B:	minimum of one in the interval of the interval	is required; cl	Water-Stain Aquatic Fau True Aquati	na (B13) c Plants (B1 ulfide Odor	.4) (C1)	toots (C3)	Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C	(B6) 310) able (C2) 8)
YDROLOGY Vetland Hydrolog Primary Indicators (I Surface Water (I High Water Table Saturation (A3) Water Marks (B) Sediment Depos	minimum of one in the state of	is required; cl	Water-Stain Aquatic Fau True Aquati	na (B13) c Plants (B1 ulfide Odor izospheres	.4) (C1) on Living F	doots (C3)	Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C	(B6) 310) able (C2) 8) n Aerial Imagery (C9)
Vetland Hydrology Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one in the interval of the interval	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir	.4) (C1) on Living F on (C4)		Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible or	(B6) B10) able (C2) 8) n Aerial Imagery (C9) Plants (D1)
Wetland Hydrology Primary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B: Sediment Deposits (B: Drift Deposits (B:	minimum of one i A1) le (A2) 1) sits (B2) 33) st (B4)	is required; cl	Water-Stain Aquatic Fau True Aquati Hydrogen Si Oxidized Rh Presence of Recent Iron	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction	.4) (C1) on Living F on (C4) in Tilled Sc		Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible or Stunted or Stressed	(B6) B10) able (C2) B) n Aerial Imagery (C9) Plants (D1)
YDROLOGY Vetland Hydrolog Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one i A1) le (A2) 1) sits (B2) 33) st (B4)		Water-Stain Aquatic Fau True Aquati Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7)	.4) (C1) on Living F on (C4) in Tilled Sc		Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible of Stunted or Stressed Geomorphic Position	(B6) B10) able (C2) B) n Aerial Imagery (C9) Plants (D1)
Vetland Hydrolog Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one i A1) le (A2) 1) sits (B2) sst (B4)	gery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen Si Oxidized Rh Presence of Recent Iron	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7)	.4) (C1) on Living Foon (C4) in Tilled Sc		Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible of Stunted or Stressed Geomorphic Position	(B6) B10) able (C2) B) n Aerial Imagery (C9) Plants (D1)
Wetland Hydrology Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one in the interval of the interval	gery (B7) Face (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7)	.4) (C1) on Living Foon (C4) in Tilled Sc		Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible of Stunted or Stressed Geomorphic Position	(B6) B10) able (C2) B) n Aerial Imagery (C9) Plants (D1)
Wetland Hydrology Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one i A1) le (A2) l) sits (B2) sst (B4) sle on Aerial Imag ted Concave Surf	gery (B7) Face (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7) ell Data (D9	.4) (C1) on Living Foon (C4) in Tilled Sc		Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible of Stunted or Stressed Geomorphic Position	(B6) B10) able (C2) B) n Aerial Imagery (C9) Plants (D1)
High Water Tabl Saturation (A3) Water Marks (B: Sediment Deposits (E Algal Mat or Cru Iron Deposits (E Inundation Visib	minimum of one in the initial management of	gery (B7) Face (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Gurface (C7) fell Data (D9 ain in Rema	.4) (C1) on Living Foon (C4) in Tilled Sc	oils (C6)	Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D	(B6) B10) Bable (C2) B8) In Aerial Imagery (C9) Plants (D1) In (D2) S5)
Wetland Hydrology Primary Indicators (i) Surface Water (A) High Water Table Saturation (A3) Water Marks (B) Sediment Deposits (E) Algal Mat or Cru Iron Deposits (E) Inundation Visib Sparsely Vegeta Field Observations Surface Water Present Saturation Present?	minimum of one in MA1) le (A2) l.) sits (B2) sits (B4) sits (B4) sits (B4) red Concave Surf site (Concave Surf red Yes (Concave Surf	gery (B7) Face (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Gurface (C7) dell Data (D9 ain in Rema	.4) (C1) on Living Foon (C4) in Tilled Sc	oils (C6)	Surface Soil Cracks Drainage Patterns (I Dry Season Water T Crayfish Burrows (C Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D	(B6) B10) able (C2) B) n Aerial Imagery (C9) Plants (D1)
Wetland Hydrology Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one in the initial management of	gery (B7) Face (B8) No No No	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7) dell Data (D9 ain in Rema	(C1) (C1) on Living F on (C4) in Tilled Sc () () () () () () () ()	- Weti	Surface Soil Cracks Drainage Patterns (I) Dry Season Water T Crayfish Burrows (C) Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D)	(B6) B10) Bable (C2) B8) In Aerial Imagery (C9) Plants (D1) In (D2) S5)
Wetland Hydrology Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one in the initial management of	gery (B7) Face (B8) No No No	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7) dell Data (D9 ain in Rema	(C1) (C1) on Living F on (C4) in Tilled Sc () () () () () () () ()	- Weti	Surface Soil Cracks Drainage Patterns (I) Dry Season Water T Crayfish Burrows (C) Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D)	(B6) B10) Bable (C2) B8) In Aerial Imagery (C9) Plants (D1) In (D2) S5)
Wetland Hydrology Primary Indicators (i) Surface Water (i) High Water Table Saturation (A3) Water Marks (B) Sediment Deposits (B) Algal Mat or Cru Iron Deposits (B) Inundation Visib Sparsely Vegeta Field Observations Surface Water Prese Water Table Present Saturation Present? (includes capillary fri Describe Recorded	minimum of one in the initial management of	gery (B7) Face (B8) No No No	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7) dell Data (D9 ain in Rema	(C1) (C1) on Living F on (C4) in Tilled Sc () () () () () () () ()	- Weti	Surface Soil Cracks Drainage Patterns (I) Dry Season Water T Crayfish Burrows (C) Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D)	(B6) B10) Bable (C2) B8) In Aerial Imagery (C9) Plants (D1) In (D2) S5)
Primary Indicators (i) Surface Water (ii) High Water Table Saturation (A3) Water Marks (B) Sediment Deposits (B) Algal Mat or Cru Iron Deposits (B) Inundation Visible Sparsely Vegeta Field Observations Surface Water Present Saturation Present? includes capillary fri Describe Recorded	minimum of one in the initial management of	gery (B7) Face (B8) No No No	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7) dell Data (D9 ain in Rema	(C1) (C1) on Living F on (C4) in Tilled Sc () () () () () () () ()	- Weti	Surface Soil Cracks Drainage Patterns (I) Dry Season Water T Crayfish Burrows (C) Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D)	(B6) B10) Bable (C2) B8) In Aerial Imagery (C9) Plants (D1) In (D2) S5)
Wetland Hydrology Primary Indicators (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of one in the initial management of	gery (B7) Face (B8) No No No	Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (B1 ulfide Odor izospheres Reduced Ir Reduction Surface (C7) dell Data (D9 ain in Rema	(C1) (C1) on Living F on (C4) in Tilled Sc () () () () () () () ()	- Weti	Surface Soil Cracks Drainage Patterns (I) Dry Season Water T Crayfish Burrows (C) Saturation Visible or Stunted or Stressed Geomorphic Position FAC-Neutral Test (D)	(B6) B10) Bable (C2) B8) In Aerial Imagery (C9) Plants (D1) In (D2) S5)

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Expan	sion		Cit	ty/Coun	ity:	Allen County	У		San	npling Date:	:2	6-Sep-17
pplicant/Owner: AEP						State:	: OH	Sa	mpling Poir	nt:upl	-jb -09	2617-04
nvestigator(s): J. Lubbers, A. Hanner				Section	, Town	ship, Range	: S 1	 1 т 39	5 R	7E		
andform (hillslope, terrace, etc.): Flat					L	ocal relief (concave,	convex, none		-		
llope:0.0%0.0 ° Lat.:	40 80003 <i>i</i>	57		Lo	na : -:	84.0274950	Λ			Datum: N	IAD 83	
						07.0277930	0	NIM/T alpesi		_		
oil Map Unit Name: Pewamo silty clay			r a Vac	• No	\bigcirc	(If no o	volain in	NWI classi Remarks.)	iicauoii: <u>r</u>	N/A		
are climatic/hydrologic conditions on the si								•		Voc	• 1	No O
	or Hydrolo		significantly dis			Are "No	ormal Cii	rcumstances" p	present?	165		NO C
re Vegetation	or Hydrolo		naturally proble			•		olain any answ ansects, in		•	es, etc	: .
	Yes O	No 💿		<u> </u>	P						,	
	Yes O	No •			Is the	Sampled A	Area		_			
•	Yes O	No •			withir	n a Wetland	d? \	Yes 🔾 No 🤇	lacksquare			
Treating Tryansiegy Treating	res \bigcirc	NO S										
Remarks:												
VEGETATION - Use scient	tific nar	nes of nla	nts	Domi	inant							
VEGETATION OSC SCIENT	- III	nes or pio		- Spec	cies?		T	· · · · · · • · · ·				
Tree Stratum(Plot size:)		Absolute % Cover		strat. ver	Indicator Status		nance Test v		:		
1					.0%			per of Dominar are OBL, FACV			0	(A)
2.				\neg	.0%		11.00	a. c	.,			
3.					.0%			Number of Do es Across All S			2	(B)
4.					.0%		Speci	es Acioss Ali 3	uata.	-		(D)
5.			0		.0%			ent of domina			0.00/	(A/D)
			0	= Tota	al Cove	r	That	Are OBL, FA	CW, or FA	AC:	0.0%	(A/B)
<u>Saplina/Shrub Stratum (</u> Plot size:		_)					Preva	lence Index	workshee	et:		
1			0	0	.0%			Total % Cov	ver of:	Multiply	y by:	
2			0	0	.0%			species	0	x 1 =	0	
3			0	$\overline{}$.0%			:W species	0		0	_
4				$\overline{}$.0%			species	0		0	
5					.0%			U species	100		400	
<u>Herb Stratum</u> (Plot size:)		0	= Tota	al Cove	er	UPL	. species	0	x 5 =	0	_
1. Dipsacus fullonum				✓ 75	5.0%	FACU	Colu	ımn Totals:	100	(A)	400	(B)
2. Taraxacum officinale			25	✓ 25	5.0%	FACU	F	Prevalence In	ndex = B/	A =	4.000	
3			0		.0%		Hvdro	phytic Vege	tation Ind	licators:		
4			0	=	.0%			- Rapid Test			etation	
5				=	.0%			- Dominance	-			
6				=	.0%			- Prevalence				
7 8.				-	.0%		4	- Morphologi	ical Adapt	ations 1 (I	Provide	supportina
9.				=	.0%	-	da	ata in Remarl	ks or on a	separate	sheet)	
10.				$\overline{}$.0%		∐ Pr	oblematic H	ydrophyti	c Vegetati	on ¹ (E)	(plain)
-		1	100		al Cove			licators of hy				logy must
Woody Vine Stratu (Plot size:)					oe pr	esent, uniess	s uisturde	u or probl	ematic.	
1,				-	.0%		Hvdr	ophytic				
				0	.0%		Vege	***				
2			^	-			-	· · · · · · · · · · · · · · · ·	AC ()	No (•)		
<u> 2.</u>			0	= Tota	al Cove	r	Pres	ent? Y	′es O	No 💿		

UPLAND 04 **SOIL**

Sampling Point: <u>|-ib|-092617-04</u>

-	•	tne depth ne				onfirm th	e absence of indicators.)	
DepthCo	Matrix lor (moist)	%	Color (moist)	ox Featu %	res Type ¹	Loc2		Remarks
0-18 10Y		98	10YR 5/6	2	C		Silty Clay Loam	Komarko
1 Type: C=Concentrati	on. D=Depletion	n. RM=Reduce	d Matrix. CS=Covere	ed or Coat	ed Sand Gr	ains.	² Location: PL=Pore Lining. M	=Matrix.
Hydric Soil Indicat	•	ny ra i reduce	a rathy co cover	24 01 000	ica sana oi	u5.		
Histosol (A1)	J. J.		Sandy Gleyed	Matrix (S	4)		Indicators for Problema	•
Histic Epipedon (A2)		Sandy Redox	•	.,		Coast Prairie Redox (A	16)
Black Histic (A3)			Stripped Matri				Dark Surface (S7)	
Hydrogen Sulfide	-		Loamy Mucky	. ,	F1)		☐ Iron Manganese Masse	• •
Stratified Layers			Loamy Gleyed				☐ Very Shallow Dark Surf	face (TF12)
2 cm Muck (A10)			Depleted Matr				Other (Explain in Rema	arks)
Depleted Below [•	11)	Redox Dark Si	urface (F6	5)			
Thick Dark Surface	` '		Depleted Dark	Surface	(F7)		³ Indicators of hydrophytic	vegetation and
Sandy Muck Mine	. ,		Redox Depres	sions (F8))		wetland hydrology m	ust be present,
5 cm Mucky Peat							unless disturbed or	problematic.
Restrictive Layer (if	f observed):							
Type:							Hydric Soil Present?	ſes ○ No •
Depth (inches): Remarks:			_				,	
HYDROLOGY								
	T., di., t.,							
Wetland Hydrology Primary Indicators (m		ic required: ch	neck all that annly)				Secondary Indicators	(minimum of two required
Surface Water (A		is required, cri	Water-Stain	od Loavos	· (BO)		Surface Soil Crac	· · · · · · · · · · · · · · · · · · ·
High Water Table	•		Aquatic Fau		(65)		☐ Drainage Pattern	` '
Saturation (A3)	. (NZ)		True Aquatio	• •	314)		Dry Season Water	` ,
Water Marks (B1))		Hydrogen Si	-			Crayfish Burrows	` '
Sediment Deposit			Oxidized Rh			Roots (C3)	= '	e on Aerial Imagery (C9)
Drift Deposits (B3			Presence of		_	,	Stunted or Stress	• , , ,
Algal Mat or Crus	t (B4)		Recent Iron	Reduction	n in Tilled S	oils (C6)	Geomorphic Posi	tion (D2)
☐ Iron Deposits (B5	5)		☐ Thin Muck S	urface (C	7)		FAC-Neutral Test	(D5)
Inundation Visible	e on Aerial Imag	gery (B7)	Gauge or W	ell Data (I	D9)			
Sparsely Vegetate	ed Concave Sur	face (B8)	Other (Expla	ain in Rem	narks)			
Field Observations:		0 0						
Surface Water Presen	t? Yes	○ No •	Depth (inc	hes):		_		
Water Table Present?	Yes	○ No •	Depth (inc	hes):		_		·
Saturation Present?	(a) Yes	○ No ●	Depth (inc	hes):		Wet	land Hydrology Present?	Yes ○ No •
(includes capillary frin	ge)				nrevious i	- I	c) if available:	
Describe Recorded	Data (Stream	yauye, moni	tornig well, aerial	μποιος,	previous II	ispection:	o), ii avaliable:	
Domarket								
Remarks:								

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Aep East Lima Station Expan	nsion		Cit	ty/County:	Allen County	y Sampling Date: 26-Sep-17
Applicant/Owner: AEP					State:	: OH Sampling Point: upl-jbl-092617-05
nvestigator(s): J. Lubbers, A. Hanner				Section, Towr	nship, Range	:: S 11 T 3S R 7E
andform (hillslope, terrace, etc.): Flat					Local relief (concave, convex, none): none
Slope:	40 80235 [.]	75		Long: -	84.028310	3 Datum: NAD 83
_		/3			07.020310.	NWI classification: N/A
Soil Map Unit Name: Blount silt loam			s s Vec	• No O	(If no or	xplain in Remarks.)
Are climatic/hydrologic conditions on the s						
	, or Hydrolo		significantly dis		Are "No	ormal Circumstances" present? Yes • No •
_	, or Hydrok tach site		naturally proble wing samı			eded, explain any answers in Remarks.) ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No •				,
, , , ,	Yes O	No •		Is the	e Sampled A	Area
Hydric Soil Present?	Yes O	No •		withi	n a Wetlan	d? Yes ○ No •
Wetland Hydrology Present?	Yes ∪	NO 💌				
Remarks:						
VECETATION		٠.				
VEGETATION - Use scien	itific nar	nes of pla	ants.	Dominant - Species?		
- (District)	,		Absolute	Rel.Strat.		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:			% Cover		Status	Number of Dominant Species
1				0.0%		That are OBL, FACW, or FAC:0(A)
2				0.0%		Total Number of Dominant
3				0.0%		Species Across All Strata: 2 (B)
4 5.				0.0%		Percent of dominant Species
·-				= Total Cove		That Are OBL, FACW, or FAC: 0.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		7000.001	. .	Prevalence Index worksheet:
1.			0	0.0%		Total % Cover of: Multiply by:
2.				0.0%		OBL species $0 \times 1 = 0$
3			0	0.0%		FACW species $0 \times 2 = 0$
4			0	0.0%		FAC species 15 x 3 = 45
5			0	0.0%		FACU species <u>85</u> x 4 = <u>340</u>
Herb Stratum (Plot size:)		0	= Total Cove	er	UPL species 0 x 5 = 0
1 Setaria faberi			45	✓ 45.0%	FACU	Column Totals: <u>100</u> (A) <u>385</u> (B)
2 Collidade alticolma			30	30.0%	FACU	
3. Cirsium arvense			10	10.0%	FACU	Prevalence Index = B/A = 3.850
4. Apocynum cannabinum				10.0%	FAC	Hydrophytic Vegetation Indicators:
5. Poa pratensis			5	5.0%	FAC	1 - Rapid Test for Hydrophytic Vegetation
6			0	0.0%		2 - Dominance Test is > 50%
7			0	0.0%		3 - Prevalence Index is ≤3.0 ¹
8			0	0.0%		 4 - Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet)
9				0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10				0.0%		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology mus
)	100	= Total Cove	er	be present, unless disturbed or problematic.
Woody Vine Stratu (Plot size:			0	0.0%		
Woody Vine Stratu (Plot size:						
			0	0.0%		Hydrophytic
1			0	0.0% = Total Cove	 er	Hydrophytic Vegetation Present? Yes No No

UPLAND 05 **SOIL**

Sampling Point: I-ibl-092617-05

		-				onfirm the	e absence of indicators.)	
Depth (inches)	Matr Color (moist		Color (moist)	lox Featu	res _Tvpe ¹	Loc2	Texture	Remarks
0-18	10YR 4/3		10YR 5/6	1	C	M	Silty Clay Loam	Kemarks
	101111		3/0					
				-				
			-					
							·	
		etion, RM=Reduce	ed Matrix, CS=Cover	ed or Coate	ed Sand Gr	ains.	² Location: PL=Pore Lining.	M=Matrix.
Hydric Soil 1							Indicators for Proble	matic Hydric Soils ³ :
Histosol (•		Sandy Gleyed		-)		Coast Prairie Redox	(A16)
Black Hist	pedon (A2)		Sandy Redox	` '			Dark Surface (S7)	
	Sulfide (A4)		Stripped Matri	` '			Iron Manganese Ma	sses (F12)
_	Layers (A5)		Loamy Mucky	-	•		Very Shallow Dark S	
2 cm Muc			Loamy Gleyed	•	2)		Other (Explain in Re	` '
	Below Dark Surfac	e (A11)	Depleted Matr				Other (Explain in Re	indiks)
	k Surface (A12)	<i>(</i> (.22)	Redox Dark S	` '			2	
	ick Mineral (S1)		Depleted Dark		F7)		³ Indicators of hydroph	ytic vegetation and
	ky Peat or Peat (S	3)	Redox Depres	sions (F8)			wetland hydrology unless disturbed	
	ayer (if observed							
Type:	uyer (ii observed	<i>)</i> .						
Depth (inc	hac):						Hydric Soil Present?	Yes ○ No •
Remarks:	1103)							
HYDROLO	OGY							
=	Irology Indicator						Canada In dian	
	ators (minimum of	one is requirea; ci			/ >			tors (minimum of two required
	Vater (A1)		☐ Water-Stain		(B9)		Surface Soil C	
	er Table (A2)		Aquatic Fau	, ,	4.43		☐ Drainage Patt	` '
Saturation			☐ True Aquati	-	-			/ater Table (C2)
Water Ma	` '		Hydrogen S			Da eta (C2)	Crayfish Burro	
	Deposits (B2)		Oxidized Rh	•	-	ROOTS (C3)		ible on Aerial Imagery (C9)
Drift Dep			Presence of Recent Iron			oile (CC)		ressed Plants (D1)
	or Crust (B4)					olis (Co)	☐ Geomorphic F☐ FAC-Neutral T	
Iron Depo	n Visible on Aerial	Imagany (P7)	☐ Thin Muck S	-	-		FAC-Neutral I	est (D5)
	Vegetated Concave		Gauge or W	-	-			
Sparsely	vegetated Concave	Surface (B6)	Other (Expla	ain in Rema	arks)			
Field Observ	ations:							
Surface Water		es O No 💿	Depth (inc	hes).				
			, ,			-		
Water Table P		es O No 💿	-1 (thes):			and Hydrology Present?	Yes ○ No •
Saturation Pre (includes capil	Y	es 🔾 No 💿	Depth (inc	thes):		_ •••	and riyurology Fresent:	103 0 110 0
		am gauge, mon	itoring well, aerial	photos, r	revious ir	spection	s), if available:	
	222 2 400 (500			, , p			,,, =	
Remarks:								
. Ciriai No.								

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: AEP East Lima Station Expa	ansion		Cit	y/County:	Allen County	/	Sampling Date: 26-Sep-17
Applicant/Owner: AEP					State:	OH Samp	oling Point: Upl-jbl-092617-0
nvestigator(s): J. Lubbers, A. Hanner			:	Section, Town	nship, Range	: S 11 T 4S	R 7E
andform (hillslope, terrace, etc.): Flat					Local relief (concave, convex, none):	
llope: 1.0% 0.6 ° Lat.:	40 803165			Long:	84.029516	1	Datum: NAD 83
				Long	04.029310		
oil Map Unit Name: Glynwood silt lo			r a Vec	• No O	(If no or	NWI classificates NWI cl	auon: N/A
re climatic/hydrologic conditions on the						,	esent? Yes • No •
re Vegetation , Soil	, or Hydrol		significantly dis		Are "No	ormal Circumstances" pre	esent? Tes © NO C
re Vegetation, Soil SUMMARY OF FINDINGS - A	or Hydrok, ttach site		naturally probl			ded, explain any answers	•
	Yes O	No ①				,	
Hydrophytic Vegetation Present?	Yes •	No O		Is the	e Sampled A	Area	
Hydric Soil Present?	Yes O	No •		withi	n a Wetlan	d? Yes ○ No •	
Wetland Hydrology Present?	Yes ∪	NO 💌					
Remarks:							
VEGETATION - Use scie	ntific nar	mes of pla	ints.	Dominant - Species?			
/DL - :	,		Absolute	Rel.Strat.		Dominance Test wo	rksheet:
<u>Tree Stratum</u> (Plot size:			% Cover		Status	Number of Dominant S	
1				0.0%		That are OBL, FACW, o	or FAC: (A)
2				0.0%		Total Number of Domi	
3				0.0%		Species Across All Stra	ta: <u>2</u> (B)
4 5.				0.0%		Percent of dominant	t Species
-				= Total Cov		That Are OBL, FACV	
_Sapling/Shrub Stratum (Plot size:)			. .	Prevalence Index wo	nrksheet:
1.			0	0.0%		Total % Cover	
2.				0.0%		OBL species	$0 \qquad x \ 1 = \qquad 0$
3			0	0.0%		FACW species	0 x 2 = 0
4.			0	0.0%		FAC species	5 x 3 = 15
5			0	0.0%		FACU species	45 x 4 = 180
Herb Stratum (Plot size:)		0	= Total Cov	er	UPL species	45 x 5 = <u>225</u>
Dipsacus fullonum			45	✓ 47.4%	FACU	Column Totals:	95 (A) 420 (B)
Glycine max			45	✓ 47.4%	UPL	_	
3. Poa pratensis			5	5.3%	FAC	Prevalence Inde	· —
4.			0	0.0%		Hydrophytic Vegetat	
5			0	0.0%			r Hydrophytic Vegetation
6			0	0.0%		2 - Dominance Te	
7			0	0.0%		3 - Prevalence In	
8				0.0%			I Adaptations ¹ (Provide supporti or on a separate sheet)
9				0.0%		l	rophytic Vegetation ¹ (Explain)
				0.0%		_	ic soil and wetland hydrology mu
10			95	= Total Cov	er		ic son and wetiand nydrology mu listurbed or problematic.
Woody Vine Stratu (Plot size:)				be present, unless a	istarbea or problematici
-		_)	0	0.0%		be present, unless a	isturbed of problematic.
Woody Vine Stratu (Plot size:		_)		0.0%		Hydrophytic	·
Woody Vine Stratu (Plot size:		_)	0		 	Hydrophytic	s ○ No •

UPLAND 06 **SOIL** Sampling Point: <u>I-ibI-092617-06</u>

	Matala					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	e absence of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	lox Featu %	res Type ¹	Loc ²	- Texture	Remarks
0-18	10YR 4/2	98	10YR 5/6	2	C	M	Clay Loam	
						-		
			-				•	
1 Type: C=Con	centration, D=Depletion		d Matrix. CS=Covere	ed or Coat	ed Sand Gr	ains.	² Location: PL=Pore Lining. I	√=Matrix.
Hydric Soil 1		III Reduces	a riaciny co cover	24 01 0040	ea Sana Gi	unio:		
Histosol (Sandy Gleyed	Matrix (S4	4)		Indicators for Problem	•
`	pedon (A2)		Sandy Redox		.,		Coast Prairie Redox (A16)
Black Hist	• •		Stripped Matri				☐ Dark Surface (S7)	
	Sulfide (A4)		Loamy Mucky	. ,	1)		☐ Iron Manganese Mass	• •
	Layers (A5)		Loamy Gleyed	-	-		☐ Very Shallow Dark Su	, ,
2 cm Muc	` ,		✓ Depleted Matr	ix (F3)			Uther (Explain in Ren	narks)
	Below Dark Surface (A1	11)	Redox Dark Si	urface (F6)			
	k Surface (A12)		Depleted Dark	Surface ((F7)		³ Indicators of hydrophy	tic vegetation and
_ `	ick Mineral (S1)		Redox Depres	sions (F8)			wetland hydrology r unless disturbed or	nust be present,
	ky Peat or Peat (S3)						uriless disturbed of	problematic.
	ayer (if observed):							
Type:	haa).						Hydric Soil Present?	Yes No
Depth (inc							-	
Remarks:								
							L	
HYDROLO	OGY							
Wetland Hyd	Irology Indicators:	is required: ch	eck all that anniv)				Secondary Indicato	rs (minimum of two required
Wetland Hyd	Irology Indicators: ators (minimum of one	is required; ch		od Leaves	(BQ)			rs (minimum of two required
Wetland Hyd Primary Indica Surface W	Irology Indicators: ators (minimum of one Water (A1)	is required; ch	Water-Stain		(B9)		Surface Soil Cra	acks (B6)
Primary Indicate Surface W High Water	Irology Indicators: ators (minimum of one Vater (A1) er Table (A2)	is required; ch	Water-Stain	na (B13)	` '		Surface Soil Cra	acks (B6) rns (B10)
Primary Indicate Surface W High Wate Saturation	Irology Indicators: ators (minimum of one i Vater (A1) er Table (A2) n (A3)	is required; ch	Water-Stain Aquatic Fau	na (B13) c Plants (E	314)		Surface Soil Cra Drainage Patter Dry Season Wa	acks (B6) rns (B10) ter Table (C2)
Primary Indica Surface W High Wate Saturation Water Ma	Irology Indicators: ators (minimum of one i Vater (A1) er Table (A2) n (A3) urks (B1)	is required; ch	Water-Stain Aquatic Fau True Aquatic Hydrogen Si	na (B13) c Plants (E ulfide Odo	314) r (C1)	Roots (C3)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov	acks (B6) rns (B10) ter Table (C2) <i>y</i> s (C8)
Wetland Hyd Primary Indica Surface W High Wat Saturation Water Ma	Irology Indicators: ators (minimum of one invater (A1) er Table (A2) in (A3) urks (B1) Deposits (B2)	is required; ch	Water-Stain Aquatic Fau True Aquatic Hydrogen St	na (B13) c Plants (E ulfide Odo izospheres	314) r (C1) s on Living	Roots (C3)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visib	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9)
Primary Indicate Surface W High Wate Saturation Water Ma Sediment Drift Depo	Irology Indicators: ators (minimum of one invater (A1) er Table (A2) in (A3) urks (B1) Deposits (B2)	is required; ch	Water-Stain Aquatic Fau True Aquatic Hydrogen Si	na (B13) c Plants (E ulfide Odo izospheres Reduced :	314) r (C1) s on Living Iron (C4)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visib	acks (B6) rns (B10) ter Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1)
Primary Indicate Surface W High Wate Saturation Water Ma Sediment Drift Depo	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4)	is required; ch	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izospheres Reduced I Reduction	s14) r (C1) s on Living Iron (C4) n in Tilled S		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4)		Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh	na (B13) c Plants (E ulfide Odo izospheres Reduced Reduction turface (Ci	s14) r (C1) s on Living l Iron (C4) n in Tilled S		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indication Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5)	gery (B7)	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reduction iurface (Ci ell Data (E	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indication Surface W High Wate Saturation Water Ma Sediment Drift Deput Algal Mat Iron Deput Inundation	Irology Indicators: ators (minimum of one invater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) in Visible on Aerial Imag	gery (B7)	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reduction iurface (Ci ell Data (E	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indication Surface W High Wate Saturation Water Ma Sediment Drift Deput Algal Mat Iron Deput Inundation	Irology Indicators: ators (minimum of one invater (A1) er Table (A2) in (A3) i	gery (B7) face (B8)	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reduction iurface (Ci ell Data (E	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indication Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely W	Irology Indicators: ators (minimum of one invater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) iosits (B3) or Crust (B4) iosits (B5) ion Visible on Aerial Image Vegetated Concave Surf	gery (B7) face (B8)	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior iurface (C: ell Data (I	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely W	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Surf ations: Present? Yes	gery (B7) face (B8)	Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C ell Data (I ain in Rem	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) vs (C8) ele on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Primary Indication Surface Water Mail Saturation Water Mail Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Water Water Surface Water	Irology Indicators: ators (minimum of one invators (minimum of one invators (Management of one invators (Managemen	gery (B7) face (B8) No •	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior curface (C ell Data (I ain in Rem hes):	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7)	bils (C6)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ter Table (C2) us (C8) ole on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indicate Primary Indicate Surface Water Mater	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) iosits (B3) or Crust (B4) iosits (B5) ion Visible on Aerial Imag Vegetated Concave Surf attions: Present? Yes esent? Hary fringe) Yes Allory Fringe	gery (B7) face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C) ell Data (I ain in Rem hes): hes):	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7) D9) arks)	bils (C6)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po FAC-Neutral Te	acks (B6) rns (B10) ter Table (C2) vs (C8) ele on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Primary Indicate Primary Indicate Surface Water Mater Mater Algal Mater Inon Depote Inundation Sparsely Water Table Pater Saturation Precincludes capill	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Surf attions: Present? Yes eresent? Yes	gery (B7) face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C) ell Data (I ain in Rem hes): hes):	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7) D9) arks)	bils (C6)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po FAC-Neutral Te	acks (B6) rns (B10) ter Table (C2) vs (C8) ele on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely W Field Observ Surface Water Water Table P Saturation Pre (includes capil	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) iosits (B3) or Crust (B4) iosits (B5) ion Visible on Aerial Imag Vegetated Concave Surf attions: Present? Yes esent? Hary fringe) Yes Allory Fringe	gery (B7) face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C) ell Data (I ain in Rem hes): hes):	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7) D9) arks)	bils (C6)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po FAC-Neutral Te	acks (B6) rns (B10) ter Table (C2) vs (C8) ele on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely W Field Observ Surface Water Water Table P Saturation Pre (includes capil	Irology Indicators: ators (minimum of one is Vater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) iosits (B3) or Crust (B4) iosits (B5) ion Visible on Aerial Imag Vegetated Concave Surf attions: Present? Yes esent? Hary fringe) Yes Allory Fringe	gery (B7) face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior iurface (C) ell Data (I ain in Rem hes): hes):	s14) r (C1) s on Living l Iron (C4) n in Tilled S 7) D9) arks)	bils (C6)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrov Saturation Visit Stunted or Stre Geomorphic Po FAC-Neutral Te	acks (B6) rns (B10) ter Table (C2) vs (C8) ele on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)

WETLAND DETERMINATION DATA FORM - Midwest Region

Applicant/Owner: AEP Investigator(s): J. Lubbers, A. Hanner Landform (hillslope, terrace, etc.): Flat Slope: 1.0% 0.6 ° Lat.: 40.802195 Soil Map Unit Name: Pewamo silty clay loam (PmA) Are climatic/hydrologic conditions on the site typical for this time of year: Are Vegetation , Soil , or Hydrology significations of the state of the site of year:		langi	vnship, Range	OH Sampling Point: Upl-jbl-092617-07 S 11 T 4S R 7E concave, convex, none): none
Landform (hillslope, terrace, etc.): Flat Slope: 1.0% 0.6 ° Lat.: 40.802195 Soil Map Unit Name: Pewamo silty clay loam (PmA) Are climatic/hydrologic conditions on the site typical for this time of years Are Vegetation , Soil , or Hydrology significations		langi		
Are Vegetation (hillslope, terrace, etc.): Flat Slope:1.0%0.6 ° Lat.:40.802195 Description:		Long.:	Local relief (
Soil Map Unit Name: Pewamo silty clay loam (PmA) Are climatic/hydrologic conditions on the site typical for this time of years Are Vegetation , Soil , or Hydrology significant		Long.:		
Soil Map Unit Name: Pewamo silty clay loam (PmA) Are climatic/hydrologic conditions on the site typical for this time of years Are Vegetation , Soil , or Hydrology significant			-84.029939	Datum: NAD 83
Are climatic/hydrologic conditions on the site typical for this time of years			-04.029939	
Are Vegetation	, Vec	• No O	(If no. ex	NWI classification: N/A xplain in Remarks.)
Are Vegetation	-		Are "No	ormal Circumstances" present? Yes Ves No
SUMMARY OF FINDINGS - Attach site map showin	ally proble		-	ded, explain any answers in Remarks.) ns. transects. important features. etc.
Hydrophytic Vegetation Present? Yes ○ No ●				,,
		Is t	he Sampled /	Area
, , , , , , , , , , , , , , , , , , ,		witl	nin a Wetland	d? Yes ○ No •
Treatana Tryatology Tresent.				
Remarks:				
VEGETATION - Use scientific names of plants.		Dominan		
<u> </u>		- Species?	· ——	I Book on the second
	Absolute % Cover	Rel.Strat Cover	: Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
2.	0	0.0%		
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0	0.0%		Species / cross / in Strata.
5	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
per	0	= Total Co	ver	That Are OBL, FACW, or FAC: 0.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2	0	0.0%		OBL species 0 x 1 = 0
3		0.0%		FACW species <u>0</u> x 2 = <u>0</u>
4 5.		0.0%		FAC species 0 x 3 = 0
				FACU species 95 x 4 = 380
Herb Stratum (Plot size:)		_ 10ta1 co	VCI	UPL species <u>0</u> x 5 = <u>0</u>
1, Dipsacus fullonum		42.1%	FACU_	Column Totals: <u>95</u> (A) <u>380</u> (B)
2. Solidago altissima		42.1%		Prevalence Index = $B/A = 4.000$
3. Taraxacum officinale		10.5%		Hydrophytic Vegetation Indicators:
4. Symphyotrichum pilosum		5.3%		1 - Rapid Test for Hydrophytic Vegetation
5 6.	0 0	0.0%		2 - Dominance Test is > 50%
7.	0	0.0%		\Box 3 - Prevalence Index is ≤3.0 1
8.	0	0.0%		$igsquare$ 4 - Morphological Adaptations 1 (Provide supporting
9.	0	0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratu (Plot size:)	95	= Total Co	ver	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	0	0.0%		
2	0	0.0%		Hydrophytic Vegetation
_	0	= Total Co	ver	Present? Yes No No
				l

UPLAND 07 **SOIL** Sampling Point: <u>I-ibI-092617-07</u>

	Matala					onnem the	e absence of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	lox Featu %	res _Tvpe 1	Loc2	- Texture	Remarks
0-18	10YR 4/2		10YR 5/6	2	C	M	Silty Clay Loam	
			-			-		
1 Type: C=Con	centration, D=Depletion		Matrix, CS=Covere	ed or Coat	ed Sand Gr	ains.	² Location: PL=Pore Lining. N	1=Matrix.
Hydric Soil		i, iii i iteaaccc	a riddix, co cover	ca or coat	ca sana ci	unio:		
Histosol (Sandy Gleyed	Matrix (S4	1)		Indicators for Problem	•
`	pedon (A2)		Sandy Redox	•	• /		Coast Prairie Redox (A16)
Black Hist	` '		Stripped Matri	. ,			☐ Dark Surface (S7)	
	n Sulfide (A4)		Loamy Mucky	Mineral (F	1)		☐ Iron Manganese Mass	
	Layers (A5)		Loamy Gleyed				☐ Very Shallow Dark Su	, ,
2 cm Muc	` '		✓ Depleted Matr				Other (Explain in Rem	arks)
	Below Dark Surface (A1	11)	Redox Dark Si	urface (F6)			
	rk Surface (A12)		Depleted Dark	Surface (F7)		³ Indicators of hydrophyl	ic vegetation and
_ `	uck Mineral (S1)		Redox Depres	sions (F8)			wetland hydrology n	nust be present,
	cky Peat or Peat (S3)						unless disturbed or	problematic.
	.ayer (if observed):							
Type:	I X						Hydric Soil Present?	Yes No
Depth (inc	ines):						,	
Remarks:								
HYDROLO	OGY							
Wetland Hyd	drology Indicators:	is required; che	ack all that anniv)				Secondary Indicato	rs (minimum of two required
Wetland Hyd	drology Indicators: ators (minimum of one i	is required; cha		od Loaves	(PO)			rs (minimum of two required
Wetland Hyd Primary Indica Surface V	drology Indicators: ators (minimum of one i Vater (A1)	is required; che	Water-Stain		(B9)		Surface Soil Cra	cks (B6)
Wetland Hyden Primary Indicate Value of High Water	drology Indicators: ators (minimum of one i Vater (A1) er Table (A2)	is required; che	Water-Stain	na (B13)	` /		Surface Soil Cra	cks (B6) ns (B10)
Primary Indicates Surface V High Wat Saturation	drology Indicators: ators (minimum of one i Vater (A1) er Table (A2) n (A3)	is required; che	Water-Staine Aquatic Fau	na (B13) c Plants (E	14)		Surface Soil Cra Drainage Patter Dry Season Wa	cks (B6) ns (B10) ter Table (C2)
Primary Indice Surface V High Wat Saturation Water Ma	drology Indicators: ators (minimum of one i Vater (A1) er Table (A2) n (A3) arks (B1)	is required; che	Water-Stain Aquatic Fau True Aquatic Hydrogen Si	na (B13) c Plants (E ulfide Odo	14) r (C1)	Roots (C3)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow	cks (B6) ns (B10) ter Table (C2) s (C8)
Primary Indice Surface V High Wat Saturation Water Ma Sediment	Irology Indicators: ators (minimum of one i Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2)	is required; che	Water-Stain Aquatic Fau True Aquatic Hydrogen St	na (B13) c Plants (E ulfide Odo izospheres	14) r (C1) s on Living	Roots (C3)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9)
Primary Indice Surface V High Wat Saturation Water Ma Sediment Drift Dep	Atrology Indicators: ators (minimum of one in the value of A1) are Table (A2) arks (B1) arks (B1) becoming the value of A2 arks (B2) arks (B3)	is required; che	Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of	na (B13) c Plants (E ulfide Odo izospheres Reduced :	14) r (C1) s on Living l fron (C4)		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1)
Primary Indice Surface V High Water Ma Sediment Drift Dep	drology Indicators: ators (minimum of one i Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) or Crust (B4)	is required; che	Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izospheres Reduced I Reduction	14) r (C1) s on Living liron (C4) in Tilled S		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Wetland Hyc Primary Indice Surface V High Wat Saturatio Water Ma Sediment Drift Dep	drology Indicators: ators (minimum of one i Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) or Crust (B4) osits (B5)		Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Gurface (C)	14) r (C1) r on Living lift (C4) in Tilled S		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indice Surface V High Wate Saturation Water Ma Sediment Drift Dep Algal Mat Iron Depo	drology Indicators: ators (minimum of one i Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) or Crust (B4)	gery (B7)	Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Gurface (C)	r (C1) r on Living life (C4) in Tilled Si		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indice Primary Indice Surface V High Wate Saturation Water Ma Sediment Drift Dep Algal Mat Iron Depo	Arks (B1) c Deposits (B2) osits (B5) on Visible on Aerial Imag	gery (B7)	Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Gurface (C)	r (C1) r on Living life (C4) in Tilled Si		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indice Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	Arks (B1) cor Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Surf	gery (B7) Face (B8)	Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Gurface (C)	r (C1) r on Living life (C4) in Tilled Si		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Primary Indice Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely	Arrology Indicators: ators (minimum of one is vater (A1) ter Table (A2) on (A3) arks (B1) or Deposits (B2) osits (B3) or Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Surf	gery (B7) Face (B8)	Water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior iurface (C: ell Data (I	r (C1) r on Living life (C4) in Tilled Si		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Wetland Hyderimary Indicates Primary Indicates Value Naturation Water Mater M	Arks (B1) cor Crust (B4) cosits (B5) on Visible on Aerial Imag Vegetated Concave Surf	gery (B7) Face (B8)	Water-Stain Aquatic Faul True Aquatic Hydrogen Stain Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C ell Data (I ain in Rem	r (C1) r on Living life (C4) in Tilled Si		Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Wetland Hyc Primary Indice Surface V High Wat Saturation Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundation Sparsely Field Observ Surface Water	Arks (B1) cor Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Surf	gery (B7) Face (B8) No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) c Plants (E ulfide Odo izospheres Reduced : Reductior Surface (C: ell Data (E ain in Rem	r (C1) r on Living life (C4) in Tilled Si	bils (C6)	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Wetland Hyc Primary Indice Surface V High Wat Saturation Water Ma Sediment Drift Dep Algal Mat Iron Depc Inundation Sparsely Field Observ Surface Water Water Table P Saturation Prec (includes capit	drology Indicators: ators (minimum of one is Vater (A1) ter Table (A2) In (A3) arks (B1) In Deposits (B2) In Deposits (B2) In Object (B3) In Or Crust (B4) In O	gery (B7) Face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	14) r (C1) s on Living (fron (C4) in Tilled S r r r r r r r r r r r r r r r r r r r	- Wetl	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Wetland Hyc Primary Indice Surface V High Water Ma Saturation Water Ma Sediment Drift Depp Algal Mat Iron Depc Inundation Sparsely Field Observ Surface Water Water Table P Saturation Prec (includes capit	Arrivations: Arrivations: Arresent? Arresent? Arresents: Arre	gery (B7) Face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	14) r (C1) s on Living (fron (C4) in Tilled S r r r r r r r r r r r r r r r r r r r	- Wetl	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Wetland Hyc Primary Indice Surface V High Wat Saturation Water Ma Sediment Drift Dep Algal Mat Iron Depc Inundatic Sparsely Field Observ Surface Water Water Table P Saturation Pre (includes capil	drology Indicators: ators (minimum of one is Vater (A1) ter Table (A2) In (A3) arks (B1) In Deposits (B2) In Deposits (B2) In Object (B3) In Or Crust (B4) In O	gery (B7) Face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	14) r (C1) s on Living (fron (C4) in Tilled S r r r r r r r r r r r r r r r r r r r	- Wetl	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Wetland Hyc Primary Indic Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depc Inundatio Sparsely Field Observ Surface Water Water Table P Saturation Pre (includes capi	drology Indicators: ators (minimum of one is Vater (A1) ter Table (A2) In (A3) arks (B1) In Deposits (B2) In Deposits (B2) In Object (B3) In Or Crust (B4) In O	gery (B7) Face (B8) No No No No No No No No	Water-Stain Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	14) r (C1) s on Living (fron (C4) in Tilled S r r r r r r r r r r r r r r r r r r r	- Wetl	Surface Soil Cra Drainage Patter Dry Season Wa Crayfish Burrow Saturation Visib Stunted or Stre Geomorphic Po	cks (B6) ns (B10) ter Table (C2) s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)

APPENDIX B

OEPA WETLAND ORAM FORMS

la 01

Site: AEP East Lima Station	Expansion Ra	ater(s): J. Lub	bers; A. Hanner	Date:	9/26/2017
25 to 10 to 3 to 0.3 to 0.1 to 0	1 la a a acres (>20.2ha) (6 pts) 0 <50 acres (10.1 to <20.0 <25 acres (4 to <10.1hc <10 acres (1.2 to <4ha) 0 <3 acres (0.12 to <1.2) 0 <0.3 acres (0.04 to <0.04 to <0.05 acres (0.04 to <0.05 acres	2ha) (5 pts) a) (4 pts) (3 pts) na) (2pts)	W-jbl-092617-01 0.48 acres		
2 4	RROW. Buffers average RY NARROW. Buffers av RY LOW. 2nd growth or o V. Old field (>10 years), s	w I I (164ft) or more aroun 5m to <50m (82 to <1 10m to <25m (32ft to - erage <10m (<32ft) a Ia I lder forest, prairie, sa shrubland, young seco	64ft) around wetland perimeter (4) <82ft) around wetland perimeter (1) round wetland perimeter (0) bl a a a vannah, wildlife area, etc. (7)		
6 5 10 5 max 30 pts. subtotal 3a High Othe X Preci Seas Pere 3 >0.7 0.4 tt X < 0.41 3 Nonce Recc Recc	A. Urban, industrial, oper a a pH groundwater (5) er groundwater (3) cipitation (1) sonal/Intermittent surface a wa (27.6in) (3) o 0.7m (15.7 to 27.6in) (3) m (<15.7in) (1) a a a a e or none apparent (12) overed (7) overing (3) ent or no recovery (1)	all a a I e water (3) e or stream) (5) I	x tile x fillin dike roa	man use (1) , complex (1) 1) bl turated (4)	
Recc x Recc x Recc y Recc x Recc x Recc x Recc	lerately good (4) (3) r to fair (2)	laabl	a a a Check all disturbances observed X mowing shr grazing her X clearcutting X sec selective cutting dre X woody debris removal X fari	rub/sapling removal rbaceous/aquatic bed remo dimentation edging ming rrient enrichment	val

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

la 01

Site: AEP I	East Lima	Station Expansion	Rater(s):	J. Lubbers; A.	Hanner	Date:	9/26/2017
B.		-	-		I	•	
	16				w-jbl-092617-01		
	subtotal this	7					
	0 16	ł	al la				
max 10 pts.	subtotal	Check all that app Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Plain Sand Prairie Relict Wet Praires (10) Known occurrence state Significant migratory so	l (5) ry wetland-unres ry wetland-restri s (Oak Openings l/federal threater	stricted hydrology (10) cted hydrology (5)) (10) sed or endangered spec	cies (10)		
		Category 1 Wetland. Se	e Question 5 Qu	alitative Rating (-10)			
	1 17	6 la		,	, a		
max 20pts.	subtotal	6a la	а		Vegetation Community Cov		
		Score all present using	0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 a	, ,	
		Aquatic bed		1	Present and either comprises small pa		
		1 Emergent Shrub			vegetation and is of moderate quality, or significant part but is of low quality	or comprises a	
		Forest		2	Present and either comprises significant	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality o	•	
		Open water			part and is of high quality		
		Other		3	Present and comprises significant part	or more, of wetland's 3	
		6b al la Select only one.	W		vegetation and is of high quality		
		High (5)			a a a	al	
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2)			Native spp are dominant component of	•	
		Low (1)			although nonnative and/or disturbance		
		x None (0) 6 a a	la		can also be present, and species diver moderately high, but generallyw/o pres	•	
		Table 1 ORAM long forr			threatened or endangered spp to	ondo or raio	
		or deduct points for cov			A predominance of native species, with	nonnative spp high	
		Extensive >75% cover (,		and/or disturbance tolerant native spp	•	
		Moderate 25-75% cover			absent, and high spp diversity and ofte	•	
		x Sparse 5-25% cover (-1 Nearly absent <5% cover			the presence of rare, threatened, or en	dangered spp	
		Absent (1)	31 (0)		laa a la al		
		6 a		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 acres)		
		Vegetated hummucks/tu			Moderate 1 to <4ha (2.47 to 9.88 acres	<u> </u>	
		0 Coarse woody debris > 0 Standing dead > 25cm (3	High 4ha (9.88 acres) or more		
		0 Amphibian breeding poo	•		a al		
		2. 2024g pot	-	0			
				1	Present very small amounts or if more	common	
					of marginal quality		
a 1				2	Present in moderate amounts, but not quality or in small amounts of highest of	•	
	17	a 100		3	Present in moderate or greater amount	•	
B					and of highest quality		

ORAM_w-jbl-092617-01.xlsm | test_Field 10/2/2017

la 02ab

Site: AEP East Lima S	Station Expansi	on Rater(s):	J. Lubbers	s; A. Hanner	Date:	9/26/2017
2 2	1	la a		l w-jbl-092617-0	2a,b	
max 6 pts subtotal	>50 acres (>20.2h 25 to <50 acres (1) 10 to <25 acres (4) 3 to <10 acres (1.2 x 0.3 to <3 acres (0.	0.1 to <20.2ha) (5 pts) to <10.1ha) (4 pts) 2 to <4ha) (3 pts) 12 to <1.2ha) (2pts) 0.04 to <0.12ha) (1 pt)		0.90	acres	
2 4	2	la b	а	la		
max 14 pts. subtotal	WIDE. Buffers ave MEDIUM. Buffers NARROW. Buffers VERY NARROW. 2b VERY LOW. 2nd g LOW. Old field (>1	rage 50m (164ft) or maverage 25m to <50m s average 10m to <25f Buffers average <10m la growth or older forest, 0 years), shrubland, y GH. Residential, fence	(82 to <164ft) a m (32ft to <82ft) n (<32ft) around l prairie, savanna oung second greed pasture, park	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0) bl a a a a h, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallow	field. (3)	
	X HIGH. Urban, indu	strial, open pasture, ro	ow cropping, mir	ning, construction. (1)		
6 0 10 0 max 30 pts. subtotal	High pH groundwater Other groundwater x Precipitation (1) Seasonal/Intermitter	ent surface water (3) water (lake or stream) I 0 27.6in) (2)) a al I arent (12)		3b 100 year floodplain (1) x Between stream/lake ar Part of wetland/upland (Part of riparian or upland 3 a a Semi- to permanently in Regularly inundated/sat x Seasonally inundated (2 Seasonally saturated in bl a a all ba ditch x tile dike weir stormwater input	e.g. forest), complex (1) d corridor (1) a a bl undated/saturated (4) urrated (3)	r)
max 20 pts. subtotal	4 b a None or none apparaments and a secovering (2) Recent or no recovers (3) Recent or no recovers (3) Recover (4) Recovering (3) Recent or no recovers (3) Recent or no recovers (3) Recent or no recovers (3)	very (1) I I 4)	a bl a a	a a Check all disturbances of mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	observed shrub/sapling removal herbaceous/aquatic bed rem x sedimentation dredging x farming nutrient enrichment	noval

la 02ab

Site: AEP	East Lima	Station Expa	nsion Rat	er(s): J. L	ubbers; A.	Hanner	Date:	9/26/2017
		_	•			I	•	•
	17]				w-jbl-092617-02a,b		
	subtotal this	7	_					
	0 17	-	al	la				
max 10 pts.	subtotal		hat apply ar	nd score as	indicated.			
		Bog (10)						
		Fen (10) Old growth for	est (10)					
		Mature foreste	, ,					
		Lake Erie coas	stal/tributary wetl	and-unrestricte	d hydrology (10)			
			stal/tributary wetl					
		Lake Plain Sai Relict Wet Pra	nd Prairies (Oak	Openings) (10)				
			` '	al threatened or	endangered spec	ies (10)		
			ratory songbird/			()		
		Category 1 We	etland. See Ques	stion 5 Qualitati	ve Rating (-10)			
	4 21	6	la	!	,	, а		
max 20pts.	subtotal	6a la	а			Vegetation Community Cov		
			ent using 0 to 3 s	cale.	0	Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed 1 Emergent			1	Present and either comprises small pa		
		Shrub				vegetation and is of moderate quality, significant part but is of low quality	or comprises a	
		1 Forest			2	Present and either comprises significa	nt part of wetland's 2	
		Mudflats				vegetation and is of moderate quality of	or comprises a small	
		Open water				part and is of high quality		
		Other 6b a	la w		3	Present and comprises significant part vegetation and is of high quality	r, or more, of wetland's 3	
		Select only on				vegetation and is of high quality		
		High (5)				a a a	al	
		Moderately hig	ıh(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3) Moderately lov	v (2)			disturbance tolerant native species Native spp are dominant component o	f the vegetation, med	
		x Low (1)	v (2)			although nonnative and/or disturbance		
		None (0)				can also be present, and species diver		
		6 a	a la			moderately high, but generallyw/o pres	sence of rare	
			I long form for lis	st. Add		threatened or endangered spp to	h nannativa ann high	
		Extensive >75	ts for coverage % cover (-5)			A predominance of native species, with and/or disturbance tolerant native spp	•	
		Moderate 25-7	` '			absent, and high spp diversity and often	•	
		x Sparse 5-25%				the presence of rare, threatened, or en	ndangered spp	
			<5% cover (0)					
		Absent (1)	а		0	la a a la al Absent <0.1ha (0.247 acres)		
			ent using 0 to 3 s	scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
			nmucks/tussucks		2		s)	
			debris >15cm (6	,	3	High 4ha (9.88 acres) or more		
		Standing dead Amphibian bre	>25cm (10in) di	on		a al		
		2 Ampilibian bie	carry pools		0	Absent		
					1	Present very small amounts or if more	common	
						of marginal quality		
a 1					2	Present in moderate amounts, but not		
a i	24	_ 4	00			quality or in small amounts of highest of		
	21	a 1	00		3	Present in moderate or greater amoun	ts	
						and of highest quality		

Site: AEI	P East Lima	Station Expansion Rater(s): J. Lub		Date:	9/26/2017
			Field Id:		
	1 1	Metric 1. Wetland Area (size).	w-jbl-092617-03		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) X 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	0.13 acres		
	2 3	<0.1 acres (0.04ha) (0 pts)Metric 2. Upland buffers and s	urrounding land use		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only WIDE. Buffers average 50m (164ft) or more arou MEDIUM. Buffers average 25m to <50m (82 to <1 NARROW. Buffers average 10m to <25m (32ft to X VERY NARROW. Buffers average <10m (<32ft) a 2b. Intensity of surrounding land uses. Select or VERY LOW. 2nd growth or older forest, prairie, sa LOW. Old field (>10 years), shrubland, young sec X MODERATELY HIGH. Residential, fenced pastur	one and assign score. Do not double check. nd wetland perimeter (7) 164ft) around wetland perimeter (4) <82ft) around wetland perimeter (1) around wetland perimeter (0) ne or double check and average. avannah, wildlife area, etc. (7) ond growth forest. (5) e, park, conservation tillage, new fallow field. (3)		
	8.0 11.0	X HIGH. Urban, industrial, open pasture, row croppi Metric 3. Hydrology.	ng, mining, construction. (1)		
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5)	3b. Connectivity. Score all that a	apply.	
		Other groundwater (3) x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) x 0.4 to 0.7m (15.7 to 27.6in) (2)	x Between stream/lake and other hu Part of wetland/upland (e.g. forest Part of riparian or upland corridor 3d. Duration inundation/saturati Semi- to permanently inundated/s x Regularly inundated/saturated (3) Seasonally inundated (2)), complex (1) (1) on. Score one or dbl check.	
		 C0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime None or none apparent (12) Recovered (7) 	Seasonally saturated in upper 30c. Score one or double check and average. Check all disturbances observe x ditch		
		Recovering (3) x Recent or no recovery (1)	dike ro	ing/grading ad bed/RR track edging ther:	
	4 15	Metric 4. Habitat Alteration and	d Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double None or none apparent (4) Recovered (3) Recovering (2) x Recent or no recovery (1) 4b. Habitat development. Select only one and a Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1)	-		
		4c. Habitat alteration. Score one or double che	0		
		None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	grazing he clearcutting x se selective cutting dr woody debris removal x fa	urub/sapling removal erbaceous/aquatic bed remova edimentation edging rming utrient enrichment	al
	15	5	<u> </u>		

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: AEP	East Lima	Station Expansion	Rater(s): J. Lubber	rs; A. I	Hanner	Date:	9/26/2017
					Field Id:		
	15				w-jbl-092617-03		
	subtotal this	page			-		
	0 15	7	al Wetlands.				
10	<u> </u>		oly and score as indicate	tad			
max 10 pts.	subtotal	Bog (10)	ny ana score as maica	ieu.			
		Fen (10)					
		Old growth forest (10)					
		Mature forested wetland	(5)				
			ry wetland-unrestricted hydrolo				
		Lake Erie coastal/tributa Lake Plain Sand Prairies	ry wetland-restricted hydrology	(5)			
		Relict Wet Praires (10)	(Oak Openings) (10)				
			federal threatened or endange	ered speci	es (10)		
		Significant migratory sor	gbird/water fowl habitat or usa	ge (10)			
		Category 1 Wetland. Se	e Question 5 Qualitative Rating	g (-10)			
	1 16	Metric 6. Plant	communities, inter	spers	on, microtopography.		
max 20pts.	subtotal	6a. Wetland Veget	ation Communities.		Vegetation Community Cove	er Scale	
		Score all present using (to 3 scale.		Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed		1	Present and either comprises small par		
		1 Emergent Shrub			vegetation and is of moderate quality, o significant part but is of low quality	r comprises a	
		Forest		2	Present and either comprises significant	t part of wetland's 2	
		Mudflats			vegetation and is of moderate quality or	•	
		Open water			part and is of high quality		
		Other		3	Present and comprises significant part,	or more, of wetland's 3	
		6b. horizontal (plan vie Select only one.	w) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation 0	Quality	
		Moderately high(4)			Low spp diversity and/or predominance	of nonnative or low	
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2) Low (1)			Native spp are dominant component of although nonnative and/or disturbance	Ü	
		x None (0)			can also be present, and species divers	• •	
		6c. Coverage of invasiv	e plants. Refer		moderately high, but generallyw/o prese	•	
		Table 1 ORAM long form	for list. Add		threatened or endangered spp to		
		or deduct points for cove	-		A predominance of native species, with		
		Extensive >75% cover (Moderate 25-75% cover			and/or disturbance tolerant native spp a		
		x Sparse 5-25% cover (-1)			absent, and high spp diversity and often the presence of rare, threatened, or end	•	
		Nearly absent <5% cove			F	8	
		Absent (1)			Mudflat and Open Water Class Quality	y	
		6d. Microtopography.			Absent < 0.1ha (0.247 acres)		
		Score all present using (1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
		1 Vegetated hummucks/tu 0 Coarse woody debris >1			Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more	<u> </u>	
		0 Standing dead >25cm (1		-			
		0 Amphibian breeding poo			Microtopography Cover Scale		
					Absent		
				1	Present very small amounts or if more of marginal quality	common	
				2	or marginal quality Present in moderate amounts, but not o	of highest	
Category 1					quality or in small amounts of highest q	0	
	16 GRAND	TOTAL(max 100 pts)		3	Present in moderate or greater amount	s	
		• *			and of highest quality		

ORAM_w-jbl-092617-03.xlsm | test_Field

Site: AEF	P East Lima S	Station Expansi	on Rate	r(s): J. Lu	bbers; A.	Hanner	Dat	e: 9/26/2017
	1 1	1	la	а		ı w-jbl-092	617-04	
max 6 pts	subtotal	>50 acres (>20.2h 25 to <50 acres (1 10 to <25 acres (1 3 to <10 acres (1. 0.3 to <3 acres (0. x 0.1 acres (0.04ha)	0.1 to <20.2ha) to <10.1ha) (4 2 to <4ha) (3 pt 12 to <1.2ha) (3 0.04 to <0.12ha)	pts) s) 2pts)		0.20	acres	
	2 3	2	la b	а		la		
max 14 pts.	subtotal	2a al la a WIDE. Buffers ave MEDIUM. Buffers NARROW. Buffers X VERY NARROW. 2b VERY LOW. 2nd g LOW. Old field (>1 X MODERATELY H X HIGH. Urban, indu	average 25m to s average 10m Buffers averag la growth or older 0 years), shrut GH. Residentia	o <50m (82 to < to <25m (32ft to ge <10m (<32ft) I forest, prairie, soland, young seal, fenced pastu	und wetland p <164ft) around o <82ft) around around wetlan bl savannah, wild econd growth f ire, park, cons	wetland perimeted wetland perimeter (0) a a a difference, etc. (7) orest. (5) ervation tillage, ne	aer (1)	
	60 90	3	I					
max 30 pts.	subtotal	3a High pH groundwate Other groundwate X Precipitation (1) Seasonal/Intermit Perennial surface 3 a wa >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 t) X <0.4m (<15.7in) (1 3 a None or none app Recovered (7) Recovering (3) X Recent or no reco	ent surface water (Jake or surface water (Jake or surface) o 27.6in) (2) a al arent (12)			Part of wetland Part of riparian 3 a Semi- to perma Regularly inun x Seasonally inu Seasonally sat	m/lake and other human use (1) ////////////////////////////////////	bl nonstormwater)
	5 5 14 5	4 8	aba I	a a	I			
max 20 pts.	subtotal	4a b a None or none app Recovered (3) x Recovering (2) x Recent or no reco 4b ab a Excellent (7) Very good (6) Good (5) Moderately good (Fair (3) Poor to fair (2) Poor (1) 4 ab a al a None or none app Recovered (6) x Recovering (3) x Recent or no reco	very (1) I 4)				x sedimentation dredging emoval x farming	quatic bed removal

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: AEP I	East Lima	a Sta	ation Ex	pans	ion F	Rater(s): J	. Lubber:	s; A. F	Hanner	Date:	9/26/2017
				_		•				l		
	14	5								w-jbl-092617-04		
	subtotal th									,		
	0 14	=1		5	а	l la						
		2	Chaal	-					اء م			
max 10 pts.	subtotal	_	Bog (10)	all tha	at apply	y and sc	ore a	as indicat	ea.			
			Fen (10)									
			Old growt	h forest	t (10)							
			Mature fo									
			_					cted hydrolog ed hydrology				
		-	_			Oak Openi			(3)			
			Relict We				3-7 (,				
			_					d or endanger		es (10)		
				-	, ,			abitat or usag	` '			
	2 16	5	Calegory	_	la la	Juestion 5	Quali	tative Rating	(-10)			
		3	_	-				,		, a	6 1	
max 20pts.	subtotal		6a	la	a				•	Vegetation Community Cove		
			Score all Aquatic be		using 0 to	o 3 scale.				Absent or comprises <0.1ha (0.2471 ac Present and either comprises small par	, ,	
		1	Emergent						'	vegetation and is of moderate quality, o		
		1	Shrub							significant part but is of low quality	·	
			Forest						2	Present and either comprises significan	•	
			Mudflats Open wat	or						vegetation and is of moderate quality or part and is of high quality	comprises a small	
		-	Other	.01					3	Present and comprises significant part,	or more, of wetland's 3	
		-	6b	al	la w					vegetation and is of high quality		
		_	Select on	ly one.								
		-	High (5) Moderate	ly biab(4)					a a a a Low spp diversity and/or predominance	of poppative or low	
		-	Moderate		- ,					disturbance tolerant native species	of Hormative of low	
			Moderate	ly low (2	2)					Native spp are dominant component of	the vegetation, mod	
			Low (1)							although nonnative and/or disturbance		
		Х		а	а	la				can also be present, and species divers moderately high, but generallyw/o prese	•	
					-	or list. Add	ı			threatened or endangered spp to	since of faire	
			or deduct		-					A predominance of native species, with	nonnative spp high	
			Extensive		. ,					and/or disturbance tolerant native spp a	•	
		×	Moderate Sparse 5-			3)				absent, and high spp diversity and ofter the presence of rare, threatened, or end		
		_	Nearly ab			(0)				the presence of rare, uncatened, or end	angered spp	
			Absent (1)		,				laa a la al		
			6		a					Absent <0.1ha (0.247 acres)		
		1	Score all		-					Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres		
		0								High 4ha (9.88 acres) or more	<u></u>	
		0	Standing	dead >2	25cm (10i	n) dbh				, , , ,		
		0	Amphibia	n breed	ing pools				^	a al		
									0	Absent Present very small amounts or if more	common	
									'	of marginal quality	JOHN THE STREET	
									2	Present in moderate amounts, but not o	•	
a 1										quality or in small amounts of highest q	uality	
1	16 5		a	a 100)				3	Present in moderate or greater amounts	5	
-	_									and of highest quality		

ORAM_w-jbl-092617-04.xlsm | test_Field

10/2/2017

Site: AEF	East Lima Sta	ation Expansion	Rater(s): J. Lu	bbers; A. Hanner	Date:	9/26/2017
	2 2	1 la	а	l w-jbl-092617	'-05	
max 6 pts	subtotal X	l la a >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4t 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.13 acres (0.04 to <0.13 acres (0.04 to <0.14 acres (0.04 to)	a s) :20.2ha) (5 pts) .1ha) (4 pts) ia) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)	0.33	acres	
	2 4	2 la	b a	la		
max 14 pts.		NARROW. Buffers avera VERY NARROW. Buffers 2b VERY LOW. 2nd growth LOW. Old field (>10 years MODERATELY HIGH. Re	e 25m to <50m (82 to < ge 10m to <25m (32ft to average <10m (<32ft) la or older forest, prairie, s s), shrubland, young sesidential, fenced pastu	164ft) around wetland perimeter (4) 0 <82ft) around wetland perimeter (1) around wetland perimeter (0) bl a a a a avavannah, wildlife area, etc. (7)		
	11 0 15 0	3				
max 30 pts.	subtotal X X X	3a a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent sur Perennial surface water (3 a wa >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i <0.4m (<15.7in) (1) 3 a a None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)	ake or stream) (5) I 1) (2) al I 2)	Part of wetland/upla Part of riparian or up 3 a Semi- to permanent x Regularly inundated Seasonally inundate	e and other human use (1) nd (e.g. forest), complex (1) aland corridor (1) a a a bl ly inundated/saturated (4) /saturated (3) d (2) d in upper 30cm (12in) (1)	ater)
	5 20	4 ab a	la a	1		
max 20 pts.	subtotal X X X X X	4a b a ba None or none apparent (4 Recovered (3) Recovering (2) Recent or no recovery (1) 4b ab a I Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4 ab a al a None or none apparent (6) Recovering (3) Recent or no recovery (1)	l l a	a a a Check all disturbance x mowing grazing x clearcutting selective cutting x woody debris remove toxic pollutants	shrub/sapling removal herbaceous/aquatic bed x sedimentation dredging	removal

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: AEP	East Lima	Station E	xpansio	n Rater(s	s):	J. Lubbers; /	۹. I	Hanner	Date:	9/26/2017
<u> </u>								I		
	20	0						w-jbl-092617-05		
	subtotal this	s page								
	0 20		5	al la	а					
max 10 pts.	subtotal	4	all that a	apply and so	core	as indicated.				
max ropto.	oubtotal	Bog (10)		2pp., aa.		as marcarea.				
		Fen (10)								
			wth forest (10 forested wetl	*						
				` '	ınrestı	ricted hydrology (1	0)			
				,		ted hydrology (5)	,			
				iries (Oak Oper	nings)	(10)				
			et Praires (1	,				00 (40)		
						d or endangered s nabitat or usage (1		es (10)		
				-		litative Rating (-10	,			
	-3 17	7	6 la			,		, a		
max 20pts.	subtotal	- 6a	la	а				Vegetation Community Cove	er Scale	
		Score al	ll present usi	ng 0 to 3 scale.			0	Absent or comprises <0.1ha (0.2471 ad		
		Aquatic					1	Present and either comprises small par		
		1 Emerge Shrub	nt					vegetation and is of moderate quality, or significant part but is of low quality	r comprises a	
		Forest					2	Present and either comprises significan	t part of wetland's 2	
		Mudflats	3					vegetation and is of moderate quality of		
		Open wa	ater				_	part and is of high quality		
		Other 6b	al la	w			3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
		Select o		••				vogotation and to or riight quality		
		High (5)						a a a	al	
			tely high(4)					Low spp diversity and/or predominance	of nonnative or low	
		Moderat	te (3) tely low (2)					disturbance tolerant native species Native spp are dominant component of	the vegetation mod	
		Low (1)	ioly low (2)					although nonnative and/or disturbance	•	
		x None (0)					can also be present, and species divers	sity moderate to	
		6 T-1-1- 4		a la				moderately high, but generallyw/o prese	ence of rare	
			ORAM long	form for list. Ad	a			threatened or endangered spp to A predominance of native species, with	nonnative snn high	
			/e >75% cov	•				and/or disturbance tolerant native spe		
			te 25-75% co	. ,				absent, and high spp diversity and ofter	•	
			5-25% cover					the presence of rare, threatened, or end	dangered spp	
		Absent (nbsent <5% o	cover (U)				la a la al		
		6	(') a				0	Absent <0.1ha (0.247 acres)		
		Score a	ll present usi	ng 0 to 3 scale.			1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
			ed hummuck				2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
				s >15cm (6in) m (10in) dbh			3	High 4ha (9.88 acres) or more		
			an breeding	. ,				a al		
			· ·					Absent		
							1	Present very small amounts or if more	common	
							2	of marginal quality Present in moderate amounts, but not of	of highest	
a 1							_	quality or in small amounts of highest q	•	
	17		a 100				3	Present in moderate or greater amount	S	
-								and of highest quality		

ORAM_w-jbl-092617-05.xlsm | test_Field

Site: AEP East Lima	Station Expansion Rater(s): J	. Lubbers; A. Hanner	Date: 9/26/2017
max 6 pts subtotal	1 la a a la a a >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) x <0.1 acres (0.04ha) (0 pts)	W-jbl-092617-0	acres
max 14 pts. subtotal	<u> </u>	32 to <164ft) around wetland perimeter (4) (32ft to <82ft) around wetland perimeter (1) <32ft) around wetland perimeter (0) I bl a a a a airie, savannah, wildlife area, etc. (7) ung second growth forest. (5)	
7 0 9 0 max 30 pts. subtotal	3 a all a all a all all all all all all	3b 100 year floodplain (1) Between stream/lake a Part of wetland/upland Part of riparian or uplar 3 a a Semi- to permanently in Regularly inundated (sa x Seasonally inundated (seasonally saturated in bl a a all ba x ditch x tile dike weir	a a bl nundated/saturated (4) turated (3) 2) 1 upper 30cm (12in) (1) a b point source (nonstormwater) x filling/grading road bed/RR track dredging
6 5 15 5 subtotal	4a b a ba None or none apparent (4) Recovered (3) x Recovering (2) x Recent or no recovery (1) 4b ab a I I I Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) x Poor to fair (2) Poor (1) 4 ab a al a None or none apparent (9) Recovered (6) x Recovering (3) Recent or no recovery (1)	a I bl a a a Check all disturbances mowing grazing Clearcutting selective cutting woody debris removal toxic pollutants	observed shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging x farming nutrient enrichment

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: AEP	East Lima	Station Ex	pansion	Rater(s):	J. Lubbers; A	۹. H	anner	Date:	9/26/2017
				-			ı		
	15 5					,	w-jbl-092617-06		
	subtotal this	page							
	0 15 5	3	5	al la					
max 10 pts.	subtotal	Check	all that ap	ply and sco	re as indicated.				
		Bog (10)		. ,					
		Fen (10)	l. f (40)						
			h forest (10) rested wetlar	nd (5)					
		Lake Erie	coastal/tribut	tary wetland-unr	estricted hydrology (1	0)			
				tary wetland-rest es (Oak Opening	ricted hydrology (5)				
			t Praires (10)		<i>(</i> 10)				
					ened or endangered s	•	s (10)		
				-	wl habitat or usage (19 Qualitative Rating (-10)	,			
	2 17 5		6 la	oc Question o d	-	,	. а		
max 20pts.	subtotal	∐ 6a	la	а	,	,	Vegetation Community Cove	er Scale	
тах горго.	Subtotal			0 to 3 scale.		_	Absent or comprises <0.1ha (0.2471 ac		
		Aquatic b			•		Present and either comprises small par		
		1 Shrub	İ				regetation and is of moderate quality, one significant part but is of low quality	r comprises a	
		1 Forest			•		Present and either comprises significan	t part of wetland's 2	
		Mudflats					regetation and is of moderate quality or	comprises a small	
		Open wat Other	er			_	part and is of high quality Present and comprises significant part,	or more, of wetland's 3	
		6b	al la	w			egetation and is of high quality		
		Select on High (5)	ly one.				a a a	al	
		Moderate	ly high(4)			L	_a aa _ow spp diversity and/or predominance		
		Moderate	. ,			_	disturbance tolerant native species		
		Moderate Low (1)	ly low (2)				Native spp are dominant component of although nonnative and/or disturbance	•	
		x None (0)					can also be present, and species divers	• • • • • • • • • • • • • • • • • • • •	
		6	a a	la			moderately high, but generallyw/o prese	ence of rare	
			RAM long for points for co	rm for list. Add		_	hreatened or endangered spp to A predominance of native species, with	nonnative snn high	
			>75% cover	-			and/or disturbance tolerant native spp a		
			25-75% cove	. ,			absent, and high spp diversity and often	•	
			-25% cover (- sent <5% co	,		t	he presence of rare, threatened, or end	angered spp	
		Absent (1		(0)			la a la al		
		6 Coore all	a	0 to 3 scale.			Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
			present using d hummucks/	•	•		Moderate 1 to <4ha (2.47 to 9.88 acres)	
		0 Coarse w	oody debris >	>15cm (6in)	•		High 4ha (9.88 acres) or more		
			dead >25cm n breeding po	. ,			a al		
		o Ampilibia	ii breeding po	JOIG		0 /	Absent		
					•		Present very small amounts or if more	common	
							of marginal quality Present in moderate amounts, but not o	of highest	
_a 1							quality or in small amounts of highest q	•	
	17 5		a 100		•	3 F	Present in moderate or greater amount	S	
						a	and of highest quality		

ORAM_w-jbl-092617-06.xlsm | test_Field

Site: AEF	PEast Lima Station	Expansion R	ater(s): J. Lubb	pers; A. Hanner	Date:	9/26/2017
max 6 pts	25 to - 10 to - 3 to - 0.3 to	la a a a cres (>20.2ha) (6 pts) <50 acres (10.1 to <20 <25 acres (4 to <10.1h to acres (1.2 to <4ha) <3 acres (0.12 to <1.2 to <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2	1.2ha) (5 pts) na) (4 pts) (3 pts) tha) (2pts)	l w-jbl-092617-07		
max 14 pts.	X <0.1 a	al la a a b Buffers average 50m UM. Buffers average 2 ROW. Buffers average	b a w I I 1 (164ft) or more around 15m to <50m (82 to <16- 10m to <25m (32ft to <	la a a bl wetland perimeter (7) 4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1) sund wetland perimeter (0)		
	LOW.	Old field (>10 years), ERATELY HIGH. Resid	shrubland, young secor dential, fenced pasture,	bl a a a a a annah, wildlife area, etc. (7) and growth forest. (5) park, conservation tillage, new fallow field. (3) pmining, construction. (1)		
max 30 pts.	Other x Precip Seasc Peren 3 : >0.7 (: 0.4 to x <0.4m 3 None Recov x Recov	a by groundwater (5) groundwater (5) groundwater (3) bitation (1) bral/Intermittent surface nial surface water (lake a wa 27.6in) (3) 0.7m (15.7 to 27.6in) (1) (<15.7in) (1) a a a a or none apparent (12) vered (7) vering (3) and or no recovery (1)	e or stream) (5) I (2)	x tile x fillin dike roa dre	man use (1) , complex (1) 1) bl	
max 20 pts.	None Recov X Recov X Recer 4b Excell Very g Good Model Fair (3 X Poor t Poor (A a None Recov X Recov	lent (7) good (6) (5) rately good (4) 3) o fair (2)	laa bl	grazing her x clearcutting x sec selective cutting dre x woody debris removal x fan	ub/sapling removal baceous/aquatic bed remov dimentation dging ming rient enrichment	val

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: AEP	East Lima	Station Ex	pansion	Rater(s):	J. Lubbers; A	. Ha	inner	Date:	9/26/2017
				-			l		
	15 5	1				w	/-jbl-092617-07		
	subtotal this	page							
	0 15 5		5	al la					
max 10 pts.	subtotal	Check a	all that an	ply and sco	re as indicated.				
		Bog (10)		, , , , , , , ,					
		Fen (10)							
			h forest (10) rested wetlan	d (5)					
				` '	estricted hydrology (10))			
				,	ricted hydrology (5)				
			t Praires (10)	es (Oak Openino	js) (10)				
			, ,		ened or endangered sp	ecies	(10)		
				•	wl habitat or usage (10 Qualitative Rating (-10)))			
	1 165		6 la	ee Question 5 G	qualitative Italing (-10)		. а		
max 20pts.	subtotal	4	la	а	,	1/4	egetation Community Cove	ar Scalo	
max zupis.	Subtotal		oresent using			_	osent or comprises <0.1ha (0.2471 ac		
		Aquatic be	ed		_	1 Pr	esent and either comprises small par	t of wetland's 1	
		Emergent 1 Shrub					egetation and is of moderate quality, o gnificant part but is of low quality	r comprises a	
		1 Forest			_	_	esent and either comprises significan	it part of wetland's 2	
		Mudflats					egetation and is of moderate quality or	comprises a small	
		Open wate	er		_	_	art and is of high quality resent and comprises significant part,	or more, of wetland's 3	
		6b	al la	w			egetation and is of high quality	or more, or menana e e	
		Select onl High (5)	y one.			_	a a a	al	
		Moderatel	y high(4)			_	ow spp diversity and/or predominance		
		Moderate	. ,				sturbance tolerant native species		
		Moderatel Low (1)	y low (2)				ative spp are dominant component of though nonnative and/or disturbance		
		x None (0)					in also be present, and species divers	• • • • • • • • • • • • • • • • • • • •	
			a a	la			oderately high, but generallyw/o prese	ence of rare	
			RAM long for points for cov	m for list. Add		_	reatened or endangered spp to predominance of native species, with	nonnative son high	
			>75% cover	-			nd/or disturbance tolerant native spp a	•	
			25-75% cove	. ,			sent, and high spp diversity and ofter		
			25% cover (- sent <5% cov	,		tne	e presence of rare, threatened, or end	aangered spp	
		Absent (1)		. ,			la a la al		
		6 Score all r	a present using	0 to 3 scalo	-	_	osent <0.1ha (0.247 acres) ow 0.1 to <1ha (0.247 to 2.47 acres)		
			l hummucks/t		_		oderate 1 to <4ha (2.47 to 9.88 acres)	
			oody debris >		-	3 Hi	gh 4ha (9.88 acres) or more		
			dead >25cm breeding po	. ,			a al		
		_ , ampinibidi	. S. ooding po	-0.0		0 Ab			
					_		resent very small amounts or if more	common	
					-	_	marginal quality resent in moderate amounts, but not continue.	of highest	
a 1					_		ality or in small amounts of highest q	•	
	16 5	а	100			3 Pr	esent in moderate or greater amounts	s	
						an	nd of highest quality		

ORAM_w-jbl-092617-07.xlsm | test_Field

10/2/2017

APPENDIX C OEPA HHEI STREAM FORMS

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

ī	Ī	ī				ī	Ī
		2)	(٦		
		-	-	•	•		

BLDR SLABS [16 pts]		BER RIVER	R BASIN Auglaize DR	AINAGE AREA (mi²) 0.	.08
DATE 9/26/17 SCORER JBL, AEH COMMENTS Intermittent hh-jbl-09/26/17-01 NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY (Max of 32). Add total number of significant substrate types found (Max of 4). Final metric score is sum of boxes A & B. TYPE (Max of 32). Add total number of significant substrate types found (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts) 9%. SLT (3 pt) PPECEUTION (Max of 4). Final metric score is sum of boxes A & B. TOTAL NUMBER OF SUBSTRATE TYPES: 3 MAXImum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): SLT (2 pts) 9%. SL	ENGTH OF STREAM REACH (ft)	200 LAT. 40.80183	LONG84.02721 RIVER CODE	RIVER MILE	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction STREAM CHANNEL		BL, AEH COMMENTS	intermittent	hh-jbl-092617	7-01
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT TYPE BURNET (Feb 19)			and the second s	H Streams" for Instru	uctions
MODIFICATIONS: SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32), Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & 8. Mink of 32), Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & 8. Mink of 8). Final metric score is sum of boxes A & 8. Mink of 8). Mink of 8). Final metric score is sum of boxes A & 8. Mink of 8). Min					-
(Max of 32), Add total number of significant substrate types found (Max of 8), Final metric score is sum of boxes A & B. TYPE BLDR SLABS (16 pts)		NE / NATURAL CHANNEL L	RECOVERED RECOVERING	RECENT OR NO RECO	OVERY
BLDR SLABS (16 pts 9% 170 17	[18] - [18]		**		нн
BLDR SLABS [16 pts]				A Control Second	Met
BEDROCK [16 pt]	BLDR SLABS [16 pts]	0%	SILT [3 pt]	70%	Poi
COBBLE (65-256 mm) [12 pts]				- Carrier Committee	Subs
GRAVEL (2-64 mm) [9 pts]					Max
SAND (<2 mm) [6 pts] 10% ARTIFICIAL [3 pts] 0% Total of Percentages of 0.00% (A) (B) Birl Slabs, Boulder, Cobble, Bedrock 0.00% (A) (B) CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 2.5 cm = 10 cm [15 pts] > 2.5 cm [2 pts] > 3.5 cm [3 pts] > 2.5 cm [2 pts] > 3.5 cm [2 pts] > 3.5 cm [2 pts] > 3.5 cm [2 pts] > 3.0 cm [30		**1	The state of the s		
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] MAXIMUM POOL DEPTH (Inches): 2 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13) [30 pts] > 3.0 cm -4.0 cm (> 9 *7 * -13) [25 pts] > 3.0 cm -4.0 cm (> 9 *7 * -13) [25 pts] COMMENTS AVERAGE BANKFULL WIDTH (Feet): 3.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: A RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: A RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: A RIPARIAN WIDTH FLOODPLAIN QUALITY Floorest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Depth Pasture, Row Crop None Residential, Park, New Field Depth Pasture, Row Crop None Residential, Park, New Field Depth Pasture, Row Crop Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Floving Moist Channel, Isofated pools, no flow (intermittent) Dry channel, no water (Ephemeral) COMMENTS Water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None Dot Depth Residential Stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None Dot Depth Residential Stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None Dot Depth Residential Stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None Dot Depth Residential Stagnant			The Control of the Co		9
Bildr Slabs, Boulder, Cobble, Bedrock CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS MAXIMUM POOL DEPTH (Inches): 2 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13) [30 pts] > 4.0 meters (> 13) [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]	SAND (~2 mm) [o pis]		AKTIFICIAL [5 pis]		
Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 20.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS MAXIMUM POOL DEPTH (Inches): 2 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 4' 8') [20 pts] COMMENTS AVERAGE BANKFULL WIDTH (Feet): 3.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: A given by the field of		0.00% (A)		(B)	A +
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]		and the state of t		ATE TYPES: 3	
Sample S	Maximum Pool Denth /Measu	re the maximum neel deeth i	within the 61 mater (200 ft) evaluation re	ach at the time of	Pool F
> 30 centimeters 20 pts 22.5 - 30 cm 30 pts 22.5 - 30 cm 30 pts 30 cm 30 cm 30 pts 30 cm 3				acti at the time of	Max :
NO WATER OR MOIST CHANNEL [0 pts]	> 30 centimeters [20 pts]		> 5 cm - 10 cm [15 pts]		12270
BANK FULL WIDTH (Measured as the average of 3-4 measurements) A				70 -1-1	4.5
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: R	> 10 - 22.5 cm [25 pts]		NO WATER OR MOIST CHANNEL	[U pts]	15
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8'') [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	COMMENTS		MAXIMUM POOL DEPTH	(Inches): 2	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9'' - 13') [25 pts] > 1.0 m (> 3' 3'' - 4' 8'') [15 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8'') [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide > 10 m Mature Forest, Welland Moderate 5-10 m Mature Forest, Welland Moderate 5-10 m Residential, Park, New Field Part Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.5 STREAM GRADIENT ESTIMATE	DANK FILL IMIDELLAND	d == 10 = ====== == = = 1	(Charl OM Vara b		Post
Stream Gradjent estimate		u as the average of 3-4 meas			Wid
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH				· ·	Max=
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 0.5 STREAM GRADJENT ESTIMATE		0 pts]			
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3.0		(*) *			
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Dr Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20	(M) 4	AVERAGE BANKFULL WID	TH (Feet): 3.00	5
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Woderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.7 STREAM GRADIENT ESTIMATE	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20		AVERAGE BANKFULL WID	TH (Feet): 3.00	5
Wide >10m	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS	This informa	ation <u>must</u> also be completed	(, 334)	5
Moderate 5-10m	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS	This information	ation <u>must</u> also be completed ANOTE: River Left (L) and Right (R) as lo	(, 334)	5
Narrow <5m	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS RIPARIAN ZONE AND FAIPARIAN WIDTH L R (Per Bank)	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY LR (Most Pr	ation must also be completed NOTE: River Left (L) and Right (R) as lo ALITY edominant per Bank) L R	oking downstream 🛠	5
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Prince of Mature F	ation must also be completed ANOTE: River Left (L) and Right (R) as lo ALITY Gedominant per Bank) L R Forest, Wetland	oking downstream ☆ Conservation Tillage	5
None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Pr	ation must also be completed ANOTE: River Left (L) and Right (R) as lo ALITY Gedominant per Bank) L R Forest, Wetland	oking downstream ☆ Conservation Tillage	5
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m	This Information FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Property Mature Formation Field	ation must also be completed ANOTE: River Left (L) and Right (R) as lo ALITY edominant per Bank) Forest, Wetland e Forest, Shrub or Old	oking downstream & Conservation Tillage Urban or Industrial	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide > 10m Moderate 5-10m V V Narrow < 5m	This information of the complete of the comple	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro	
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 2.5 STREAM GRADIENT ESTIMATE	COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None	This information of the complete of the comple	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro	
Subsurface flow with isolated pools (Interstitial) COMMENTS_water filled channel but is stagnant SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 5.5 STREAM GRADIENT ESTIMATE	COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Pr Mature F Immature Field Resident Fenced F	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old dial, Park, New Field	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	COMMENTS RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Pr Mature F Immature Field Resident Fenced F	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old dial, Park, New Field	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction	р
None 1.0 2.0 3.0 >3 STREAM GRADIENT ESTIMATE	RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time Stream Flowing	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Prediction) (Check ONL)	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old dial, Park, New Field Pasture Yone box): Moist Channel, isolated poor	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction	р
None	RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time Stream Flowing Subsurface flow with isola	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Prediction) (Check ONLease of Evaluation) This informs Resident	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old dial, Park, New Field Pasture Yone box): Moist Channel, isolated poor Dry channel, no water (Epi	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction	р
0.5	RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m None COMMENTS FLOW REGIME (At Time Stream Flowing Subsurface flow with isola COMMENTS water file	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Present of Evaluation) (Check ONLease of Evaluation) (Check ONLease of Evaluation) (Interstitial)	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) Forest, Wetland Forest, Wetland Forest, Shrub or Old Ital, Park, New Field Pasture Yone box): Moist Channel, isolated poor Dry channel, no water (Epicant	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction	р
STREAM GRADIENT ESTIMATE	RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m None COMMENTS FLOW REGIME (At Time Stream Flowing Subsurface flow with isola COMMENTS water file SINUOSITY (Number of	This informs FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Present of Mature Field of Evaluation) (Check ONLeasted pools (Interstitial) Illed channel but is stagns bends per 61 m (200 ft) of channel but is stagns	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) forest, Wetland e Forest, Shrub or Old dial, Park, New Field Pasture Yone box): Moist Channel, isolated poor Dry channel, no water (Epidant	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction ols, no flow (Intermittent)	р
	RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m None COMMENTS FLOW REGIME (At Time Stream Flowing Subsurface flow with isola COMMENTS water file SINUOSITY (Number of None	This information of the period	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) E Forest, Wetland E Forest, Shrub or Old Edal, Park, New Field Pasture Yone box): Moist Channel, isolated poor Dry channel, no water (Epicant annel) (Check ONLY one box): 2.0	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction ols, no flow (Intermittent) nemeral)	р
TENNING TO SEVERE TO SEVER	RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m None COMMENTS FLOW REGIME (At Time Stream Flowing Subsurface flow with isola COMMENTS water file SINUOSITY (Number of None 0.5	This information of the control of t	ation must also be completed ANOTE: River Left (L) and Right (R) as locality edominant per Bank) E Forest, Wetland E Forest, Shrub or Old Edal, Park, New Field Pasture Yone box): Moist Channel, isolated poor Dry channel, no water (Epicant annel) (Check ONLY one box): 2.0	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction ols, no flow (Intermittent) nemeral)	р

ADDITIONAL STREAM INFORMATION (This	
QHEI PERFORMED? - Yes	No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE	E(S)
WWH Name:	Distance from Evaluated Stream
CWH Name: _	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MA	PS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
ISGS Quadrangle Name: Cairo	NRCS Soil Map Page: 11 NRCS Soil Map Stream Order 2
county: Allen	Township / City: Bath/Lima
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of	of last precipitation: 09/19/17 Quantity: 0.22
Photograph Information:	
Elevated Turbidity? (Y/N): N Cand	ору (% open): 10%
Vere samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
	ved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
s the sampling reach representative of the stre	
s the sampling reach representative of the site	sain (1714) II not, piease explain
Additional comments/description of pollution in	npacts:
ID number. Incl Fish Observed? (Y/N) N Voucher? (Y/N	all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the lude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) N Salamanders Observed? (Y/N) Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N)
DRAWING AND NARRATI	VE DESCRIPTION OF STREAM REACH (This must be completed):
	r features of interest for site evaluation and a narrative description of the stream's location
	100000
,	V COV D.
\ X	
LOW →	J tarested bank
5/	
	7 7 5
	- Conster Marie

APPENDIX D

DELINEATED FEATURES PHOTOGRAPHS



Wetland Delineation Report

D1-DELINEATED WETLANDS



Client Name: Site Location:

AEP East Lima Station Expansion Project

Project No. 60555098

Date:

Sept. 26, 2017

Description:

Wetland 01

PEM wetland



Facing North



Facing Southwest



Facing South



Facing East



Soil Pit



Client Name: Site Location: Project No.

AEP East Lima Station Expansion Project 60555098

Date:

Sept. 26, 2017

Description:

Wetland 02a

PEM wetland



Facing North



Facing East



Facing South



Facing West



Soil Pit



Client Name: Site Location:

East Lima Station Expansion Project

Project No. 60555098

Date:

AEP

Sept. 26, 2017

Description:

Wetland 02b

PFO wetland



Facing North



Facing East



Facing South



Facing West



Soil Pit



Client Name: Site Location:

AEP East Lima Station Expansion Project

Project No. 60555098

Date:

Sept. 26, 2017

Description:

Wetland 03

PEM wetland



Facing Northeast



Facing South



Facing West



Facing East



Soil Pit



Client Name: Site Location: Project No.

AEP East Lima Station Expansion Project 60555098

Date:

Sept. 26, 2017

Description:

Wetland 04

PEM/PSS wetland



Facing North



Facing East



Facing South



Facing West



Soil Pit



Client Name: Site Location:

AEP East Lima Station Expansion Project

Project No. 60555098

Date:

Sept. 26, 2017

Description:

Wetland 05

PEM wetland



Facing North



Facing East



Facing South



Facing West



Soil Pit



Client Name: Site Location: Project No.

AEP East Lima Station Expansion Project 60555098

Date:

Sept. 26, 2017

Description:

Wetland 06

PFO/PSS wetland



Facing North



Facing East



Facing South



Facing West



Soil Pit



Client Name: Site Location: Project No.

AEP East Lima Station Expansion Project 60555098

Date:

Sept. 26, 2017

Description:

Wetland 07

PEM/PFO wetland



Facing North



Facing East



Facing South



Facing West



Soil Pit



Wetland Delineation Report

D2-DELINEATED STREAMS



PHOTOGRAPHIC RECORD **STREAMS**

Project No. **Client Name:** Site Location: AEP East Lima Station Expansion Project 60555098

Date:

Sept. 26, 2017 **Description:**

Stream 01

Intermittent

Modified Class 1



Facing Upstream



Facing Downstream



Substrate



D3-DELINEATED PONDS



PHOTOGRAPHIC RECORD **PONDS**

Project No. **Client Name:** Site Location:

AEP East Lima Station Expansion Project 60555098

Photo No. 1

Date:

Sept. 26, 2017 **Description:**

Pond 01

Facing north



Photo No. 2

Date:

Sept. 26, 2017 **Description:**

Pond 01

Facing east



APPENDIX E

CORRESPONDENCE LETTERS FROM USFWS AND ODNR

Geckle, Aaron

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

Sent: Monday, September 18, 2017 12:46 PM

To: Geckle, Aaron

Cc:nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.usSubject:Southwest Lima Station Expansion Project, Allen Co. OH



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



TAILS# 03E15000-2017-TA-1936

Dear Mr. Geckle,

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

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

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

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

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

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

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

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

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

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

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

Sincerely,

Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW

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

December 1, 2017

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

Re: 17-695; East Lima Station Expansion Project

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

Location: The proposed project is located in Bath Township, Allen County, Ohio.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

LETTER OF NOTIFICATION FOR EAST LIMA STATION EXPANSION PROJECT

Ji n	ne	1	2	N 1	Ω
Ju	I IC	- 1		v) i	()

Appendix B Ohio Power Company's 2018 Long Term Forecast Report

AEP Ohio Transmission Company, Inc. June 2018

East Lima Station Expansion Project

June 1, 2018

PUCO FORM FE-T8 AEP OHIO SUMMARY OF EXISTING SUBSTATIONS ON TRANSMISSION LINES

Substation Name	Type Distribution (D) Transmission (T)	Voltage(s) (kV)	Line Association (FE-T7 or FE-T9 Notation)	Notation	Line Existing or Proposed
DELAWARE (CSP)	T	138	Delaware - Hyatt (CSP)	659	E
DELAWARE (CSP)	T	138	*Delaware - Tangy	660	E
DEXTER SWITCH	T	138	Dexter Sw Meigs No. 2 (Socco)	15559	E
DEXTER SWITCH	F	138	Dexter Sw Elliott - Poston	596	E
DEXTER SWITCH	1	138	Dexter Sw Rutland	6281	E
DOGWOOD RIDGE	D	138	East Wheelersburg - Millbrook	2344	E
DON MARQUIS (OP-CS) (OVEC)	T	138	Don Marquis - Waverly No. 1	13679	E
DON MARQUIS (OP-CS) (OVEC)	T	138	Don Marquis - Waverly No. 2	15137	E
DON MARQUIS (OP-CS) (OVEC)	1	138	Don Marquis - Lick	15138	E
DON MARQUIS (OP-CS) (OVEC)	T	138	Don Marquis - South Lucasville	21538	E
DON MARQUIS (OP-CS) (OVEC)	T	345	Biers Run - Don Marquis	21618	E
DON MARQUIS (OP-CS) (OVEC)	T	345	*Don Marquis - Killen (DP&L)	9237	E
DON MARQUIS (OP-CS) (OVEC)	T	765	Don Marquis - Hanging Rock	543	E
DUBLIN(CS)	D	138	Dublin - Sawmill	12717	E
DUBLIN(CS)	D	138	Britton-Dublin	24897	E
DUCK CREEK	D	138	Gorsuch - Mill Creek	11539	E
EAST AMSTERDAM	T	138	Tidd - June Road	26958	E
EAST BEAVER	T	138	Don Marquis - Lick	15138	E
EAST BROAD STREET	T	138	Blacklick - East Broad	13397	E
EAST BROAD STREET	T	138	East Broad Street - Yearling	2228	E
EAST BROAD STREET	T	138	East Broad Street - Kirk #1	648	E
EAST BROAD STREET	T	138	East Broad Street - Kirk #2	649	E
EAST BROAD STREET	T	138	Astor - East Broad Street	661	E
EAST LEIPSIC	T	138	East Leipsic - Yellow Creek	17718	E
EAST LEIPSIC	T	138	East Leipsic - Richland	4883	E
EAST LIMA	T	138	East Lima - Yellow Creek	17717	E
EAST LIMA	T	138	East Lima - Sterling	2043	E
EAST LIMA	T	138	East Lima - Ford Motor (Lima Sw.)	2061	E
EAST LIMA	T	138	East Lima - Haviland	2062	E
EAST LIMA	T	138	East Lima - New Liberty	697	E
EAST LIMA	T	138	East Lima - North Findlay	698	E
EAST LIMA	T	138	East Lima - Rockhill	699	E
EAST LIMA	T	138	East Lima - South Kenton	700	E
EAST LIMA	T	138	East Lima - West Lima	701	E
EAST LIMA	T	345	East Lima - Maddox Creek	16757	E

Page 65 of 1

June 1, 2018

PUCO FORM FE-T8 AEP OHIO SUMMARY OF EXISTING SUBSTATIONS ON TRANSMISSION LINES

Substation Name	Type Distribution (D) Transmission (T)	Voltage(s) (kV)	Line Association (FE-T7 or FE-T9 Notation)	Notation	Line Existing or Proposed
EAST LIMA	T	345	East Lima - Fostoria Central	581	E
EAST LIMA	T	345	East Lima - Southwest Lima	582	E
EAST LIMA	T	345	East Lima - Marysville	583	E
EAST LIVERPOOL	T	138	*East Liverpool - Wylie Ridge (FE)	3862	E
EAST NEW CONCORD	D	138	Muskingum River - West Cambridge	729	E
EAST POINTE	D	138	Ohio Central - Philo #1	739	E
EAST PROCTORVILLE	D	138	Darrah - North Proctorville	185	E
EAST SIDE (LIMA)	D	138	North Delphos - Sterling	24279	E
EAST WHEELERSBURG	T	138	Bellefonte - East Wheelersburg	193	E
EAST WHEELERSBURG	T	138	East Wheelersburg - Millbrook	2344	E
EAST WHEELERSBURG	T	138	East Wheelersburg Sw Texas Eastern	702	E
EAST WOOSTER	Т.	138	East Wooster - Wooster	2253	E
EAST WOOSTER	T	138	*Cloverdale (FE) - East Wooster	602	E
EAST WOOSTER	T	138	East Wooster - South Canton	704	E
EAST ZANESVILLE	T	138	Ohio Central - Philo #1	739	E
EASTOWN ROAD	D	138	Rockhill - West Lima	743	E
ELK	D	138	Corwin - Elk	22417	- E
ELK	D	138	Elk - Poston	22418	E
ELLIOTT	T	138	Dexter Sw Elliott - Poston	596	E
FAIRCREST STREET	D	138	South Canton - Southeast Canton 138 kV	744	E
FIFTH AVENUE	D	138	Hess Street - Wilson Road	641	E
FINDLAY CENTER	T	138	Ebersole - Findlay Center	20859	E
FISHER	T	138	Fisher - Hall - Wilson	11338	E
FISHER	T	138	Fisher - Roberts	5282	E
FLAG CITY	D	138	Ebersole - New Liberty	20857	E
FLATLICK	T	765	Flatlick - Gavin	8314	E
FLATLICK	T	765	Flatlick - Marysville	8315	E
FORD MOTOR - LIMA	Т	138	East Lima - Ford Motor (Lima Sw.)	2061	E
FORD MOTOR - LIMA	Т	138	Ford - Rockhill	2841	E
FOSTORIA CENTRAL	T	138	Ebersole - Fostoria Central #2	20858	E
FOSTORIA CENTRAL	T	138	Ebersole - Fostoria Central #1	20860	E
FOSTORIA CENTRAL	T	138	Fostoria Central - Melmore	22938	E
FOSTORIA CENTRAL	T	138	Buckley Road - Fostoria Central	687	E
FOSTORIA CENTRAL	T	138	Fostoria Central - West End Fostoria	708	E
FOSTORIA CENTRAL	T	345	Galion - South Berwick	554	E

Page 66 of 1

4

 $\label{eq:AEP-ohio-Transmission} AEP\ Ohio\ Transmission\ Company,\ Inc.\ June\ 2018$

East Lima Station Expansion Project

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

6/1/2018 11:04:49 AM

in

Case No(s). 18-0906-EL-BLN

Summary: Letter of Notification (Request for Expedited Treatment) electronically filed by Ms. Christen M. Blend on behalf of AEP Ohio Transmission Power Company, Inc.